HEARING ON U.S. INVESTMENT IN CHINA'S CAPITAL MARKETS AND MILITARY-INDUSTRIAL COMPLEX

HEARING

BEFORE THE

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

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WASHINGTON: 2021

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U.S. INVESTMENT IN CHINA'S CAPITAL MARKETS AND MILITARY-INDUSTRIAL COMPLEX

FRIDAY, MARCH 19, 2021

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

Washington, D.C.

The Commission met in Room 253 of Russell Senate Office Building and via videoconference at 9:30 a.m., Commissioners Bob Borochoff and Jeffrey Fiedler (Hearing Co-Chairs), presiding.

OPENING STATEMENT OF COMMISSIONER BOB BOROCHOFF HEARING CO-CHAIR

COMMISSIONER BOROCHOFF: I'd like to call to order the hearing of the United States-China Economic and Security Review Commission. We're going to hear today about U.S. investment in China's capital markets and military industrial complex.

Good morning and welcome to the third hearing of the U.S.-China Review Commission 2021 annual report cycle.

This hearing comes not just as China welcomes unprecedented levels of U.S. investment into its capital markets, but also as the U.S. implements restrictions on portfolio investment in Chinese defense conglomerates and other firms tied to China's military.

More broadly, it comes to U.S. policymakers -- as U.S. policymakers consider how to safeguard U.S. national security in commercial relations with China with an increasingly blurred distinction between civilian and defense companies under China's military-civil fusion strategy.

In the Phase 1 trade deal signed in January 2020, China's government promised to open its financial markets to foreign participation. But the terminology of openness does not guarantee that U.S. investors' rights are guaranteed.

As China's corporate governance structures evolve and strengthen, they preserve a special extralegal channel for Chinese Communist Party oversight and intervention.

The result is a situation and a system in which influence trumps ownership and the Chinese Communist Party always has the upper hand.

Our panelists today will consider this nebulous corporate landscape, examining the avenues through which Chinese Communist Party influence is exercised in state ownership and investment is expanding in order to assess the impact on U.S.-China competition in key technology areas.

As channels for U.S. investment into China's markets proliferate, U.S. firms and individuals face unavoidable realities.

Without greater transparency into the nature of the assets they hold, pervasive fraud, systematic financial risk make the safety of any investment somewhat insecure, particularly in assets or companies without deeper strategic importance or political backing from Chinese government.

In addition, the risk that U.S. investment might unwittingly flow into strengthening China's defense capabilities is magnified by the breadth and the murkiness of China's military-industrial complex.

Everyone, U.S. government, financial firms, and investors are all stakeholders in continued U.S. security and prosperity.

Our hearing today contemplates, among other solutions, how refined policy tools might provide U.S. firms with greater awareness as they navigate China markets.

I look forward to hearing today's expert witnesses. I thank them for joining us to share their expertise.

In addition, I would like to thank the Senate Committee on Commerce, Science, and Transportation for securing this room for our use today.

I will now turn the floor over to my colleague and Co-Chair for this hearing, Commissioner Jeffrey Fiedler.

PREPARED STATEMENT OF COMMISSIONER BOB BOROCHOFF HEARING CO-CHAIR

Good morning, and welcome to the third hearing of the U.S.-China Economic and Security Review Commission's 2021 Annual Report cycle. This hearing comes not just as China welcomes unprecedented levels of U.S. investment into its capital markets, but also as the United States implements restrictions on portfolio investment in Chinese defense conglomerates and other firms tied to China's military. More broadly, it comes as U.S. policymakers consider how to safeguard U.S. national security in commercial relations with China, given the increasingly blurred distinction between civilian and defense companies under China's military-civil fusion strategy.

In the Phase One trade deal signed January 15, 2020 China's government promised to open its financial markets to foreign participation, but the terminology of openness does not guarantee that U.S. investors rights are guaranteed. As China's corporate governance structures evolve and strengthen, they preserve a special, extra-legal channel for Chinese Communist Party oversight and intervention. The result is a system in which influence trumps ownership, and the Chinese Communist Party always has the upper hand. Our panelists today will consider this nebulous corporate landscape, examining the avenues through which Communist Chinese Party influence is exercised and state ownership and investment is expanding in order to assess the impact on U.S.-China competition in key technology areas.

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OPENING STATEMENT OF COMMISSIONER JEFFREY FIEDLER HEARING CO-CHAIR

COMMISSIONER FIEDLER: Thank you, Commissioner Borochoff and good morning, everyone. This hearing is timely on a couple of levels. Much of the continuing debate on America's relationship with China has been focused on trade.

But recently, China has made significant moves to attract greater amounts of foreign capital into companies listed on its various stock and corporate debt exchanges. They've apparently had some initial success, largely with European and U.S. asset managers and institutional investors.

Private equity and venture capital are also part of the mix. As China increases percentages of ownership, foreigners are allowed in certain business sectors.

At the same time, the Trump administration in its last weeks issued executive orders restricting U.S. investment in what was labeled Chinese military-related companies.

The concept of restricting U.S. investment in this way appears to be a continuing policy with the new Biden administration, although it has pushed out by some months the implementation of aspects of these new regulations.

These restrictions give weight to the argument that China is increasingly being seen in practice, not just as a competitor but as also a potential adversary.

There is a new, complex, and growing awareness of the nexus of economics and security within the U.S. government.

Our witnesses today include academics who study Chinese corporations and law, investors, researchers, and national security specialists knowledgeable about Chinese military-related companies.

Their testimony will be detailed and nuanced and inform the Commission's own internal debate on this new and evolving policy as we perform our obligation to advise Congress on U.S.-China economic and security concerns.

Before we begin, I would like to remind everyone that the testimonies and transcript from today's hearing will be posted on our website. And please also mark your calendars for the Commission's upcoming hearing on China's evolving approach to fostering economic growth and innovation, which will be on April 15th.

PREPARED STATEMENT OF COMMISSIONER JEFFREY FIEDLER HEARING CO-CHAIR

Thank you, Commissioner Borochoff, and good morning, everyone. Welcome to the third hearing of the U.S.-China Economic and Security Review Commission's 2021 Annual Report cycle. I would like to thank our witnesses for joining us today and for the effort they have put into their testimony.

This hearing is timely on a couple of levels. Much of the continuing debate on America's relationship with China has been focused on trade. But recently, China has made significant moves to attract greater amounts of foreign capital into companies listed on its various stock and corporate debt exchanges. They apparently have had some initial success, largely with U.S. and European asset managers and institutional investors. Private equity and venture capital are also part of the mix as China increases the percentages of ownership foreigners are allowed to invest in in certain business sectors.

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We'll now begin today's hearing with our first panel, which will examine the role of the state in China's capital markets.

PANEL I INTRODUCTION BY COMMISSIONER JEFFREY FIEDLER

We will now begin today's hearing with our first panel, which will examine the role of the state in China's capital markets.

We'll start this morning with Dr. Tamar Groswald Ozery, academic fellow at Harvard Law School's program on corporate governance and an affiliated scholar with the East Asian Legal Studies program at Harvard Law.

Next we'll hear from Dr. Meg Rithmire, F. Warren McFarlan Associate Professor of business administration in the business, government, and international economy unit at Harvard Business School.

Then we'll hear from Mr. Zachary Arnold, a research fellow at Georgetown Center for Security and Emerging Technology.

And finally, we'll hear this morning in Panel 1 from Anne Stevenson-Yang, co-founder and research Director at J Capital Research. Thank you very much for your testimony.

I would like to remind you that your remarks should be limited to seven minutes. Dr. Ozery, we'll start with you.

OPENING STATEMENT OF TAMAR GROSWALD OZERY, FELLOW, HARVARD LAW SCHOOL PROGRAM ON CORPORATE GOVERNANCE

DR. GROSWALD OZERY: Thank you. Hearing Co-Chairs Borochoff and Fiedler, distinguished Commissioners and staff, fellow panelists, good morning. Thank you for inviting me to discuss elements in China's corporate governance landscape.

I'm very pleased to have the opportunity to talk about these issues with you today. As the Commissioners know well, state and Party capacities were part of China's corporate governance landscape throughout its market development process.

Such space has been reserved all along with explicit affirmations from the Chinese Party state that it is there to stay.

Still, there is certainly a noticeable shift in both respects over the past decade and especially since President and Party Secretary Xi Jinping rose to power.

At the state level, as economic development advances, the forms and structures for which the state carries it shareholding capacity have amplified and become more complex, yet their overall purpose remains.

State ownership is still considered the pillar upon which the PRC's grand system of a socialist market economy with Chinese characteristics lies.

Essentially, an economic system that does not aspire for a free market but rather for one in which market forces play an increasingly expanded role as to improve the underlying economic fundamentals and justifications of continuous state ownership in the service of how China's Party state envisions economic development.

Aspirations aside, these corporate power structures created, over the years, powerful firms, individuals, and state bodies with vested interests that now captured the regulatory capacity of the state and limit the prospect of meaningful reform.

The same political economy also often holds back the state's ability to use its shareholding capacities to advance policies at the firm level.

Indeed, as I emphasized in my written testimony, while state ownership is commonly portrayed as an easy control mechanism, the reality is far from simple.

This, of course, does not say the Party-state is generally unable to mobilize firms in pursuit of its goals, but rather, that such a process is not without challenges and not without spending substantial political capital and economic costs.

Understanding these complexities can help us comprehend a seemingly contradictory approach towards market economic activity.

A series of laws and policies aim to direct central and local state bodies to exercise their shareholder capacity in what official rhetoric refers to as “a scientific manner.”

This approach encourages state bodies to hold share ownership and control to varying degrees in designated industries and key areas. In these key areas, the Party-state aims to channel its policies more easily and to be followed more strictly by loosening up control to more market-oriented forced in firms outside these spaces.

By and large, I believe that the regime still adheres to this development approach despite the widespread presence of state ownership, which as some observers rightly noted, have blurred the lines between state and private.

Overall, as I elaborated in my written testimony, while the forms of state ownership and control have amplified and become more complex over the past decade, I'm not convinced the state's level of activism as a shareholder, that is the actual exercise of its shareholding capacity, has changed much.

At the same time, however, I want to point to two additional changes that have taken form in recent years, which I assess are potentially more significant.

The first is an ongoing process to increase the effectiveness of the regulatory regime as a stabilizing force.

And we've seen this reflected not only in things like trade suspensions and by orders to control market volatility, but also in a more robust activity where the CSRC, the Chinese securities regulator, to prevent the theft and take administrative enforcement actions against corporate fraud, aspects that will hopefully be advanced even farther with the recent amendment of the Securities Law.

The third and final aspect in which I see a meaningful shift occurring is the corporate governance capacities of the CCP specifically. These have been enshrined more systematically and elaborately, particularly with respect to SOEs broadly defined.

Indeed, in recent years the Party has transparently asserted itself a greater and more direct role in corporate governance. It has expanded the use of Party organizations in firms both quantitatively and qualitatively.

Quantitatively, a greater number of firms today across both the private and public sectors have implemented a long-neglected Company Law provision to establish a Party Committee, as part of their corporate governance structure.

Qualitatively, the roles of these Party organizations expanded as well. So far, at least, it seems the Party-state has taken a rather practical approach for such expansion.

While it has intensified efforts for party-building through party-line education and cooperation and so forth, and enhance its monitoring and disciplinary reach across the market, it seems to be taking a softer approach towards interference in decision-making in the private sector.

A mandatory commitment for greater party involvement in decision-making currently applies to SOEs only and there, too, is set to follow the same scientifically-categorized approach that I pointed to earlier.

While it remains to be seen how these capacities are implemented on the ground, from a broad market perspective, these developments reflect that the Party-state is certainly aware of the trade-offs and the costs of excessive intervention at the firm level, as it tries to walk a fine line between mobilizing insiders and firms according to its priorities to allowing them sufficient leeway for independent decision-making still needed for growth and innovation, while at the same time also trying to preempt and curb down the economic and political consequences that such leeway brings.

Thank you, and I look forward to our discussion.

PREPARED STATEMENT OF TAMAR GROSWALD OZERY, FELLOW, HARVARD LAW SCHOOL PROGRAM ON CORPORATE GOVERNANCE

Written Statement by Tamar Groswald Ozery (S.J.D.)
Fellow, Harvard Law School

Testimony before the U.S.-China Economic and Security Review Commission
Hearing on "U.S. Investment in China's Capital Markets and Military-Industrial Complex"

Panel I: The Role of the State in China's Stock, Debt, and Venture Capital and Private Equity Markets

March 19, 2021

Hearing Co-Chairs Borochoff and Fiedler, distinguished Commissioners and staff, thank you for inviting me to submit a testimony concerning the PRC's party-state ownership, control, and corporate governance landscape. My testimony is based on past research[1] as well as on a book manuscript that I expect to complete in the coming months.[2]

Q1: How does China's government use its shareholding capacity to advance policy goals, and how does this differ from other means the state may use to direct the economy, such as controlling capital allocation via the financial system?

The shareholding capacity of the Chinese government is an important tool among many others in the party-state's toolbox for streamlining and consolidating control over the development of the market. At the market level, state holdings facilitate coordination, reducing information asymmetries between various state capacities and institutions. At the firm-level, the various interests of multiple state bodies can be consolidated and expressed in unison through the shareholders' vote mechanism. These are a few of the basic theoretical assumptions that guided China's experimentation with share ownership in the mid-1980 and which motivated the corporatization reform that later ensued.

Today, various forms of state ownership enable the party-state to have a continuously adaptable approach towards liberalization through experimentation, adjustments and stabilizing restraints—a significant advantage in a rapidly developing economy. Of course, the shareholding capacity of the state also bestows the party-state with potential economic as well as domestic-political gains that are still tied to its legitimacy narrative as the People's Party.[3]

The advantages of state ownership, however, are not without costs to the party-state. As I elaborate below, in trying to mitigate such costs through a series of reforms, consequent legal and political-economic conditions developed and hinder the ability of the state to exercise unbridled control even in enterprises with majority state holdings.

[1] Mainly: Tamar Groswald Ozery, *The Politicization of Corporate Governance—A Viable Alternative?*, AM. J. COMP. LAW, (forthcoming, 2021); Tamar Groswald Ozery, *Illiberal Governance and The Rise of China's Public Firms: an Oxymoron or China's Greatest Triumph?*, U. Pa. J. Int'l L., Vol 42(4) (forthcoming, 2021)

[2] Tamar Groswald Ozery, LAW AND POLITICAL ECONOMY IN CORPORATE CHINA: EVOLUTION, REVOLUTION AND MARKET DEVELOPMENT (under review).

[3] Yet, the economic gains from state ownership that end up in the central state's coffers are substantially lower than set targets: see, Tianlei Huang, *Chinese SOEs should Help Fund China's Response to Pandemic,* PIIE, Apr. 2, 2020, https://www.piie.com/blogs/china-economic-watch/chinese-soes-should-help-fund-chinas-response-pandemic

The historical context of the Chinese state's capacity as a shareholder is interlinked with its effort to establish a "modern enterprise system". Such effort, taken formally in the early 1990s, had two primary goals: 1) financing and rebuilding a troubled state sector, and; 2) reversing some of the political effects of economic decentralization of the earlier decade.

The shift to a modern, share-based, enterprise system was carried through China's "corporatization" scheme—an industrial reorganization plan set to reorganize State-Owned Enterprises (SOEs) as one of the 3 corporate forms recognized under China's then newly enacted Company Law.[4] The new corporations embraced attributes of a "modern enterprise system", including corporate legal personhood, limited liability, and transferability of rights. Social welfare functions, remnants of the planned economy, were removed and shares were issued to signify the ownership interest of the state. Separation between ownership and management was also formally adopted to gradually shift the management of state assets from bureaucrats to professional managers.

Almost simultaneously, these now-corporatized SOEs turned to China's newly established stock exchanges to raise capital. They issued their shares to domestic and foreign investors, while strategically refraining from privatization and maintaining control with the state. China's nascent capital markets were then, and to a large degree still today, a financing platform for state enterprises that enables the state to preserve its voting control disproportionately to its cash flow contributions.

Increasing the gap between the state's voting control and its cash flow rights was actively pursued in China throughout its market transition. From the inception of China's corporatization process with SOEs that raised passive equity capital while keeping state shares non-tradable; through the reorganization of these firms into larger pyramid holding groups in the 90s and early 2000s; waves of M&A activity that reduced the number of state-owned enterprises but enhanced their scope;[5] and finally via the mixed-ownership scheme that is pursued in full gusto in the past several years.[6] Like public listings, mix-ownership was commonly branded as a plan to "privatize" Chinese SOEs, but in fact, entrenched the state as a controlling shareholder in many ostensibly "privatized" firms. Indeed, the said aim of these schemes is to make firms more efficient by diversifying their shareholder-base, making their managers more accountable to market forces and more focused on generating returns, while still retaining state control.

One of the main mechanisms to carry forward the mixed-ownership reform is public financing (capital market issuance and listing of shares). According to an Asia Society and Rhodium Group study, the state holds more than 20 percent ownership in only 14 percent of China's publicly listed firms (506

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[4] *See* Zhonghua Renmin Gongheguo Gongsifa [中华人民共和国公司法] (The Company Law of the People's Republic of China) (promulgated by the Standing Comm. of the Eighth Nat'l People's Cong., Dec. 29, 1993, rev'd Oct. 27, 2005, last amended and effected Oct. 26, 2018) [hereinafter "the Company Law" or "2005 Company Law"].

[5] CHINA AND THE GLOBAL FINANCIAL CRISIS: A COMPARISON WITH EUROPE 5-6 (Jean-Pierre Cabestan et al. eds., 2012) (pointing out that between 2003 and 2010, the total number of SOEs dropped from 159,000 to 114,500, but the total assets of 121 large national SOEs managed by SASAC increased from 3 trillion to 20 trillion yuan).

[6] The term was coined at the 17th National Congress of the CCP in 2007, and later pushed forward in the 3rd Plenum of the 18th Central Committee, defined by subsequent policies and regulations as: "cross-shareholdings by, and mutual blends of, state-owned capital, collective capital, and non-public capital." Zhongguo gongchandang di shiba jie zhongyang weiyuanhui di san ci quanti huiyi gongbao (中国共产党第十八届中央委员会第三次全体会议公报)(adopted and promulgated by the Third Plenary Session of the 18th Central Comm. of the Communist Party of China, Nov. 12, 2013); Zhonggong Zhongyang Guanyu Quanmian Shenhua Gaige Ruogan Zhongda Wenti de Jueding (中共中央关于全面深化改革若干重大问题的决定) [Decision on Certain Major Issues Concerning the Comprehensive Deepening of Reform] (promulgated by the Central Comm. Communist Party China, Nov. 15, 2013).

firms in 2018) but is the *ultimate controller* in 31 percent (1,101 companies, of which 395 ultimately controlled by the central government and 706 by local governments).[7]

It is important to note that the mixed-ownership reform is advanced in a segmented manner. It aims to increase equity diversification and sometimes majority sales to private shareholders in some competitive commercial industries while allowing more limited private capital investments and maintaining state-control (absolute or actual) in strategic segments and key areas.[8]

As China became more economically advanced and its financial market more sophisticated, the tools utilized to facilitate state ownership and control have evolved and became more complex. Mixed ownership is pursued also through various forms of restructuring such as mergers & acquisitions and convertible bond issuances. In recent years, there is a push to promote mixed ownership in the opposite direction — forming state capital investment vehicles to invest in private companies, particularly in key areas and projects.[9]

It is mostly in this manner that the state utilizes its shareholding capacity to advance policy goals, maintaining various degrees of ownership and control ratios in corporatized SOEs in priority sectors and expanding its reach into private firms in other key areas through finance (including into private listed firms but mainly non-listed companies and start-ups).

To the extent that the party-state is able to mobilize its agents—both the professional managers appointed to operate state-invested firms and the officials assigned to monitor them—to pursue its policy goals through the firm, such goals naturally do not always align with the most efficient and productive way of operation. For example, when China adopted a split-share structure reform in the mid-2000s, the state's shareholding capacity and its impact on management helped ensure that the reform is being implemented rapidly, issuing generous compensation plans to public shareholders, even at the expense of firm-level economic interest. [10] Similarly, perhaps the most commonly mentioned example in Western media is the mobilization of state-controlled companies in pursuit of Belt and Road projects, many of which criticized for serving mainly geopolitical aspirations, presenting potentially exacerbated investment risks, and lacking in economic fundamentals. State-controlled firms are also mobilized to carry domestic welfare schemes, such as in the poverty alleviation campaign; or to assist the government in a broad array of ad-hoc social and national tasks, from the Beijing Olympic Games and the Shanghai World Expo to providing relief following natural disasters.[11]

[7] Daniel Rosen, Wendy Leutert, and Shan Guo, *Missing Link: Corporate Governance in China's State Sector*, ASIA SOCIETY & RHODIUM GROUP, Nov. 2018, p.12.
The PRC Company Law, *supra* note 4, art. 216(2) defines a "*controlling shareholder*" as: a shareholder whose capital contribution accounts for more than 50% of the total equity stocks, or a shareholder whose capital contribution or proportion of stock is less than 50% but who enjoys a voting right large enough to have a significant impact upon the resolution of the shareholders' meeting or the shareholders' assembly.
Art. 216(3) further defines an "*actual controller*" as: "anyone who is not a shareholder but is able to hold actual control of the acts of the company by means of investment relations, agreements or any other arrangements."
[8] Guowuyuan Guanyu Guoyouqiye Fazhan Hunhe Suoyouzhi Jingji de Yijian (国务院关于国有企业发展混合所有制经济的意见) [Opinions of the State Council on State-owned Enterprises Development of a Mixed-Ownership Economy] (promulgated by the State Council, Mar. 23, 2015, release No. 54 [2015]), art. 2. See also my answer to Q3 below.
[9] Hao Chen, Meg Rithmire, *The Rise of the Investor State: State Capital in the Chinese Economy,* 55(3) STUDIES IN COMPARATIVE INTERNATIONAL DEVELOPMENT 257(2020).
[10] Michael Firth et al., *Friend or Foe? The Role of State and Mutual Fund Ownership in the Split Share Structure Reform in China*, 45 J. FIN. & QUANTITATIVE ANALYSIS 685, 692, 699–704 (2010).
[11] Jiangyu Wang, *The Political Logic of Corporate Governance in China's State-owned Enterprises*, 47 CORNELL INT'L L.J. 631, 663 (2014).

Prioritizing state interests is easier when the state's holding ratio in the firm is higher. Yet firms can be enlisted or at least pressured to contribute to national goals even with minority or no state ownership.[12] A survey of China's top 500 private enterprises (biggest enterprises by annual operating income) shows that 94.2 percent of such enterprises participated in various national development schemes during 2019.[13]

A legal obligation to bear social responsibilities applies to all companies and can be imbued by the shifting goals of the party-state. The SOE Assets law prescribes national and social-responsibility obligations for any state-invested enterprise", applicable to any enterprise with state investment regardless of the state's ownership ratio.[14] The same law also determines that any investment made by a "state-invested enterprise" shall comply with national industrial policies, transactions shall be fair and paid for and consideration should be *reasonable*.[15] Similarly, the PRC Company Law mandates social responsibility obligation on all companies,[16] and the 2018 amendment of the Code of Corporate Governance for Listed Companies incorporated a complete chapter on ESG responsibilities.[17]

Notwithstanding the discussion above, I would like to illuminate an important aspect of state ownership and control that is not often discussed in the current climate — the political-economic and legal reins over the shareholding capacity of the state.

While state-ownership is commonly portrayed as an easy control mechanism and was indeed embraced with the intent to project state interests more uniformly through the shareholders' vote, the reality is far from simple. The Chinese economy and party-state bureaucracy developed in ways that produced complex linkages of economic interests and institutional authorities. These realities hamper the party-state's ability to push forward policies uniformly even through its shareholding capacity. Indeed, even after the establishment of SASAC—which was designed to function as a unified national, ministry-level agency, to shoulder the State Council's role as a controlling corporate shareholder— the party-state's ability to advance a particular directive through its shareholding capacity (as through its other means) remained extremely challenged at the institutional and firm levels.[18]

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12 For example in the recent Covid-19 context, firms were mobilized to shift production lines to combat the spread of COVID-19, Finbarr Bermingham, Su-Lin Tan, *Coronavirus: China Ramps up Mask Production, and Reminds World it is Manufacturing King,* INKSTONE NEWS, March 12, 2020, https://www.inkstonenews.com/business/coronavirus-china-ramps-mask-production-and-reminds-world-it-manufacturing-king/article/3074900 . Private firms are similarly mobilized in pursuit of Xi's poverty alleviation campaign, Yang Xuemin, *How Companies Help Alleviate Poverty in China?*, CGTN, Sep. 13, 2020, https://news.cgtn.com/news/2020-09-13/How-do-companies-help-alleviate-poverty-in-China--TKAtKzLUJ2/index.html

13 *2020 Zhongguo Minying Qiye 500 qiang Fabu Baogao* [2020 中国民营企业 500 强发布报告] (China Top 500 Enterprises 2020 Survey and Analysis Report), released by the Ministry of Econ. Affairs, Sep. 10, 2020, http://www.acfic.org.cn/zzjg_327/nsjg/jjb/jjbgzhdzt/2020my5bq/2020my5bq_bgbd/202009/t20200904_244200.html

14 Zhonghua Renming Gonghe Guo Qiye Gouyou Zichan Fa (中华人民共和国企业国有资产法) [Law of the People's Republic of China on the State-Owned Assets of Enterprises] (promulgated by the Standing Comm. Nat'l People's Cong., Oct. 28, 2008, effective May 1, 2009) [hereinafter SOE Assets Law], art. 17: "A state-invested enterprise engaged in business activities shall… accept the supervision of the general public, assume social responsibilities, and be responsible to the contributor [i.e. the state shareholder]".

15 *Ibid,* art. 36.

16 2005 Company Law, *supra* note 4, art. 5: "When conducting business operations, a company shall comply with … social morality… accept the supervision of the government and general public and bear social responsibilities."

17 *Shangshi Gongsi Zhili Zhunze* [上市公司治理准则] (Code of Corporate Governance for Listed Companies) (first promulgated by the China Sec. Regulatory Comm'n and the State Economic and Trade Comm'n, Jan. 7, 2001, Rev'd Sep. 30, 2018), Chapter IX.

18 Since its establishment, SASAC faced strong resistance from various interested parties within China's political economy. Other national-level ministries that compete with SASAC on regulatory powers, as well as powerful industry behemoths

At the firm level, the state naturally operates through human appointees both as corporate insiders in SOEs (managers) and their supervising agents (officials). This situation introduces monitoring challenges and abundant opportunities for self-enrichment. This structural predicament became known in China as the "absentee principal" or the "absent owner" (*suoyouzhe quewei*). Consequently, firms in China became de facto controlled by largely unmonitored powerful insiders (*neiburen kongzhi*), leading to the relative apathy of government officials towards corporate misconduct.[19] My academic work elaborates on the corporate governance consequences of this reality which includes widespread self-dealing and corruption. The same political-economic reality also captures the state and hinders its ability to advance reforms and implement policies at the firm level.[20]

This is not to say that the state is unable to mobilize firms in pursuit of state goals, but rather that such process is not without challenges and not without spending substantial political capital and economic cost. Understanding this explains the array of regulations and policy measures that were put in place to minimize the government's routine involvement in firms on the one hand, while expanding the pathways for state and party monitoring, on the other.

The party-state is certainly aware of the tradeoffs and the costs as it tries to walk a fine line between mobilizing insiders and firms according to its priorities while allowing them sufficient decision-making plasticity, and at the same time curbing down against the economic and political consequences such plasticity brings.

Q2: How do corporate governance rights afforded to the state versus public shareholders in China differ from those typical in a developed democracy such as the United States, in law and in practice?

I believe that rather than establishing my analysis on regime type, comparing the rights afforded to public shareholders in China with the rights afforded to public shareholders in systems where corporate ownership is similarly concentrated is a more suitable approach.[21]

Indeed, many of the mechanisms the Chinese state use to entrench its control in its capacity as a shareholder are commonly employed by controlling shareholders in other systems. [22] Corporate pyramids, cross-ownership, preferential shares, and various contract-based structures are used extensively around the world, enabling controlling shareholders to raise capital while keeping control over governance. These control-entrenching structures separate decision-making powers from cash flow rights and distort the incentives of corporate controllers, enabling the extraction of private benefits of control.[23]

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under its supervision and apparent control that share similar hierarchical administrative levels, challenge its institutional capacities. Li-Wen Lin & Curtis Milhaupt, *We Are the (National) Champions: Understanding the Mechanisms of State Capitalism in China*, 65 STAN. L. REV. 697, 726-738 (2013).

[19] Donald Clarke, *Corporate Governance in China: An Overview*, 4 CHINA ECON. REV. 494 (2003).

[20] Tamar Groswald Ozery, UNRAVELING CHINA'S CAPITAL MARKET GROWTH: A POLITICAL ECONOMY ACCOUNT, The University of Michigan Law School, 2019, dissertation manuscript, available at https://repository.law.umich.edu/sjd/.

[21] For the implementation of such comparative approach see, Groswald Ozery, *Minority Public Shareholders in China's Concentrated Capital Markets—A New Paradigm*, 30 COLUM. J. ASIAN L. 1 (2016).

[22] To note, my answer here is focused on the shareholding capacity of the state. Of course, China is unique in the impact and roles of the CCP in corporate governance. I address this in my answers to Q3 and Q4 below.

[23] See generally, Lucian A. Bebchuk et al., *Stock Pyramids, Cross-Ownership, and Dual Class Equity: The Mechanisms and Agency Costs of Separating Control from Cash-Flow Rights*, *in* CONCENTRATED CORPORATE OWNERSHIP 295, 295 (Randall K. Morck

Where ownership is concentrated at the hands of controlling shareholders and their insiders—be they state organs, family groups, financial conglomerates—public shareholders' participation in governance is generally limited. External investors in these markets also hold very limited bargaining power (at both the firm and market levels) to change this reality. In that respect, China is not an exception regardless of its state-ownership. Investors in Chinese public firms know to expect this.

The situation in China is, however, somewhat different in the intensity of its corporate power structures and thus the intensity of the problems such structures bring: 1) the well-known corporate monitoring predicament—"who monitors the monitor?"— is exacerbated in China as it extends to multiple layers of agents inside and outside state-invested firms. Such structures limit the accountability of corporate controllers and insiders and amplify the potential for shareholder abuse.[24]

2) the prospect for shareholder rights reform is even more limited in China due to the state's "self-capture". The regulatory capacity of the state to bring about shareholders' rights reform is captured by its own shareholding capacity (the interests of institutions representatives of the state as a shareholder and their appointees) as well as by co-opted private individuals as powerful controlling shareholders.

When assessing shareholder rights and protections in China an important distinction should be made between economic rights and participation rights in governance. The first problem above impacts mainly the economic rights of shareholders, while the second hinders mainly shareholder governance-rights reform. The PRC has made important strides to overcome concerns for economic rights. It borrowed as well as innovated ways to strengthen investor protection in order to secure investors from economic abuse by insiders [such as derivative lawsuits,[25] enhanced pathways for monitoring and enforcement against self-dealing and corruption,[26] a push to crack-down insider trading,[27] and a recent potential path for a shareholder representative action (resembling "class action") against securities fraud].[28]

Concerning governance rights, however, public investors are designed to remain passive. This is notwithstanding a shareholder-empowering corporate governance orientation. Indeed, judged solely based on China's black-letter law, shareholders in China enjoy one of the most robust shareholder-empowering governance frameworks in the world.[29] Their powers go far beyond those granted to shareholders even in Anglo-American systems, the foothold of shareholder-primacy. As I discuss

ed., 2000). For an alternative view see, Zohar Goshen & Assaf Hamdani, *Corporate Control and Idiosyncratic Vision*, 125 YALE L.J. 560 (2016).

[24] Groswald Ozery, *supra* note 21, p. 11.

[25] Hui (Robin) Huang, *Shareholder Derivative Litigation in China: Empirical Findings and Comparative Analysis,* 27(4) *Banking and Finance Law Review* 619, 2012 (assessing that derivate lawsuits are making a "noticeable impact"); but see Nicholas C. Howson & Donald Clarke, *Pathway to Minority Shareholder Protection: Derivative Actions in the People's Republic of China*, *in* THE DERIVATIVE ACTION IN ASIA: A COMPARATIVE AND FUNCTIONAL APPROACH 243 (Dan W. Puchniak et al. eds., 2012) (criticizing the ability to exercise such right in potentially sensitive cases).

[26] Groswald Ozery, *Illiberal Governance and The Rise of China's Public Firms*, *supra* note 1.

[27] Huang (Robin) Hui, *Enforcement of Chinese Insider Trading Law: An Empirical and Comparative Perspective* (January 30, 2019). Forthcoming, Am. J. Comp. L. (2020).

[28] Zhonghua Renmin Gongheguo Zhengchuan Fa [中华人民共和国证券法] (Securities Law of the People's Republic of China) (promulgated by the 6th Meeting of the Standing Comm. of the 9th Nat'l People's Cong., Dec. 29, 1998, rev'd Oct. 27, 2005, amended Dec. 28, 2019 (effective, March 1, 2020)), art. 95; Provisions of the Supreme People's Court on Several Issues Concerning Representative Actions Arising from Securities Disputes [最高人民法院关于证券纠纷代表人诉讼若干问题的规定](*Zuigao Renmin Fayuan guanyu Zhengquan Jiufen Daibiaoren Susong Ruogan Wenti de guiding)*, issued by the Supreme People's Court, July 30, 2020.

[29] See, 2005 Company Law, *supra* note 4, arts. 37, 98, 99, 104, 124, 150.

elsewhere, however, this facially shareholder-empowering regulatory framework does little to empower *public* investors.[30]

Unlike certain other concentrated markets, the Company law does not *mandate* mechanisms that could have provided public shareholders with a meaningful impact on decision making [e.g., negative minority veto rights over certain decisions, supermajority requirements (majority-of-minority support)[31], mandatory participation of institutional investors in certain decisions, minimum board representation, cumulative voting]. Furthermore, since public shareholders are generally a passive and dispersed minority group with limited coalition-building options in China, a shareholder empowering approach ends up furthering the interests of controlling shareholders, including but not limited to the party-state. Challenges remain also with respect to public shareholders' ability to enforce their rights in court and have recourse for their damages, due to economic and/or political reasons.[32]

Boosted State Rights as a Shareholder

In addition to public shareholders' lesser ability to implement the governance rights afforded to all shareholders, the state is granted corporate governance rights outside the company and securities laws. This means that the state may be afforded rights that are beyond the reach of other shareholders.

The SOE Assets Law regulates the rights and interests of the state in its capacity as an investor. The law gives the state *quo* investor (SASAC, its local branches, other bodies performing the state's capital contributor capacity) the power to *propose* to the shareholders' meeting, candidates to be appointed as directors and supervisors in any "state invested enterprise" as well as to *propose* their removal.[33] These "boosted" governance rights are afforded to the state whether it has a controlling or non-controlling stake in the enterprise. In contrast, according to the Company law, shareholders with 10 percent or more voting rights can request the company to convene a special shareholders' meeting in which shareholders holding 3 percent or more (separately or aggregately) can submit written proposals including on personnel-related issues.[34]

Additionally, the state has the authority to establish an assessment system for managerial performance in state-invested enterprises, and to determine standards for remuneration, authorities that otherwise lie with the board.[35] With respect to managers appointed by the state, the state shall be the one to determine remuneration standards, conduct their assessment, and decide on rewards and punishments according to such assessment results.[36]

In addition to these rights on personnel-related matters, the state *quo* investor has the power to decide on the transfer of state-owned assets (i.e., the rights and interests of the state) in any state-invested enterprise. This can be interpreted to give the state a de-facto veto right in certain transactions that otherwise would have been at the purview of the board, such as a merger of a subsidiary.[37]

[30] Groswald Ozery, *supra* note 20.
[31] With exception in providing guarantees to shareholders and actual controllers, 2005 Company Law, *supra* note 4, art. 16.
[32] See sources in note 25 *supra*.
[33] SOE Assets Law, *supra* note 14, arts. 22(3) & 23.
[34] *See* 2005 Company Law, *supra* note 4, arts. 37(2), 39, 101, 102.
[35] Compare SOE Assets Law, *supra* note 14, art 27 with Company law, *supra* note 4, art. 46(9).
[36] SOE Assets Law, *ibid, ibid.*
[37] *See* SOE Assets Law, *supra* note 14, Sec. 5 (Transfer of State-owned Assets) (particularly art. 51, 53). Li-Wen Lin & Milhaupt, *supra* note 18, at 743 n.135, n.136 (noting relevant court cases that invalidated contracts for the transfer of shares without prior SASAC approval).

In "important" companies where the state holds a controlling stake, certain matters—such as mergers, split-up, dissolution, bankruptcy petition, any restructuring that will result in of the loss of state control "or any other meaningful matter…as prescribed by law and regulations"—should be first approved by the corresponding level of the people's government before the state representative casts a vote in the company's shareholders meeting.[38]

Finally, beyond conventional company law fiduciary obligations that are owed to the company as a whole, the SOE Assets Law includes a form of fiduciary duty of directors, supervisors, and senior managers not only to the invested enterprise but also specifically to the interests of the state investor (regardless of its holding ratio)[39], as well as fiduciary responsibility of the invested enterprise itself to the state investor.[40] The law also determines liability for actions that caused losses of state-owned assets, specifically.[41]

Notwithstanding these "boosted" rights and as pointed earlier, the state's capacity as an investor is not without reins. Its shareholding capacity is exercised formally through the shareholders' assembly following defined corporate procedures and is therefore subject to potential scrutiny and corporate governance limitations. The SOE Assets Law makes clear that the state as an investor shall follow the Company law procedures for shareholder deliberation and voting even concerning major corporate decisions. The law also asserts to guarantee operating autonomy and limits intervention in day-to-day decision-making.[42]

Q3: How has corporate governance evolved as a result of changes to management and structure of state-owned enterprises and firms in which the state is a minority shareholder under General Secretary Xi Jinping? What political and policy objectives are driving these changes, and what changes do you expect in the future?

Just as industrial policy was a substantial part of China's economic approach even while engaging in various economic liberalization schemes, so were state and Party capacities a part of China's corporate governance landscape throughout its market development. Such space has been reserved all along with explicit affirmations from the Chinese party-state that it is there to stay. Still, notwithstanding both the state and the Party being constant features of China's corporate governance landscape, there is certainly a noticeable shift in both respects.

Concerning the state, as I indicated in my answers above, the main change is in the forms of the state's shareholding capacity which have become more advanced and more complex. To clarify, this does not necessarily mean that the state is now exercising its shareholder rights more extensively. Future empirical research would need to assess the level of the state's shareholder activism. In the absence of such empirical studies, limited information can be drawn based on law and policy indications.

Both the SOE Assets law and the SOE Reform Guiding Opinions, as well as various regulations concerning mixed enterprises, reflect that while the routes and forms of state investments have grown, the party-state still adheres to its former reform approach in which government involvement in firms

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38 *See* SOE Assets Law, *supra* note 14, arts. 31-35, 39(3), 40, 53.
39 *See* SOE Assets Law, *supra* note 14, art. 17.
40 *See* SOE Assets Law, *supra* note 14, art. 26.
41 *See* SOE Assets Law, *supra* note 14, art. 71.
42 *See* e.g., SOE Assets Law, *supra* note 14, arts. 13, 16, 30, 33, 35, 40, 46. But see matters for which prior government approval is needed in state-controlled companies, *supra* note 38 and related text.
For political-economic reins on the state's capacity as a shareholder see answer to Q1 above.

through its shareholding capacity is mainly channeled to designated "categories". In general, "commercial SOEs whose core business is in sufficiently competitive industries and fields" are directed to have greater equity diversification. The state may hold "absolute or relative control" in these firms or be "merely a shareholder". Firms in this category are subject to market forces and given managerial autonomy to a greater degree. The criteria for managerial appointments and assessments in these firms are based more profoundly on business performance indicators. Conversely, "commercial SOEs in major industries or key fields concerning national security or national economic lifeline, or that are mainly responsible for major special project tasks" are designed to maintain state control even while encouraging contributions by external investors. Managerial appointments and assessments involve market indicators but are expressly focused on assessing their efforts "to serve national strategies, safeguard national security and the operation of the national economy, develop cutting-edge strategic industries and complete special tasks." Public welfare SOEs is yet another category, with firms designed to remain wholly owned by the state, and operational assessments being focused on their public utility functions.[43]

Notwithstanding what I believe to be a limited change in the role of the state in corporate governance in its shareholding capacity, there has been a more noticeable development in the regulatory capacity of state institutions. This has taken form in both ad-hoc interventions such as trade suspensions to control supply and demand and stabilize the market (more substantially since the 2015-16 market turmoil), as well as in an ongoing process to increase the effectiveness of the regulatory regime concerning corporate malfeasance.

China's Securities Regulatory Commission (CSRC) has been particularly active in recent years in its preventative measures, by developing innovative market monitoring mechanisms to detect suspicious trading activity in real-time and prevent securities market fraud. These efforts are said to create a "giant network of (market) surveillance" facilitated to protect investors. [44] The CSRC has also been increasingly active in taking public enforcement actions against securities law violations. Experts assessed the CSRC's public enforcement of insider trading rules to have reached a level of insider trading enforcement that is comparable to other countries (incl' the U.S., U.K., Australia, Singapore) and in some measures much higher.[45]

This trend is expected to continue following the March 2020 amendment of the PRC Securities law, which added clarity and force to the CSRC's scope of administrative sanctions and remedies. The law also broadened the path for private enforcement (misrepresentation claims) through enabling group lawsuits by approved "investor protection institutions".[46] These developments could contribute to the effectiveness of the regulatory regime around corporate misconduct.

Finally, a perhaps more substantial corporate governance change has taken form in the corporate governance capacity of the Chinese Communist Party ("CCP", or the "Party"). In recent years, the Party has stepped into corporate governance, bolstering and at times substituting many traditional corporate governance institutions both inside and outside firms.[47]

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[43] SOE Reform Guiding Opinions, *infra* note 50, art. 2(4), 2(5), 2(6).
[44] Shen Hong, Stella Yifan Xie, *That Calm Chinese Stock Market? It's Engineered by the State*, THE WALL STREET JOURNAL, May 31, 2018.
[45] Huang, *supra* note 27.
[46] See, *supra* note 28 and related text.
[47] Discussed extensively in Groswald Ozery, *The Politicization of Corporate Governance,* supra note 1.

Externally: there has been a more open involvement by the CCP in the law-making process in recent years.[48] This has manifested in the context of corporate governance by an increasing number of opinions (*yijian)* and guiding opinions (*zhidao yijian*) issued by the CCP, alongside the State Council, to regulate economic activity. While opinions and guiding opinions are not a source of authoritative formal law under the PRC Legislation Law, they are normative documents with a binding effect in practice.[49] Based on such opinions, the CCP is expanding its direct regulatory capacity over public and private market participants.[50]

Additionally, the recent reorganization of China's supervision apparatus contributed to the external monitoring capacity of the CCP over corporate conduct. The reorganization, among its other aspects, incorporated the CCDI (Central Commission for Disciplinary Inspection) into a newly created National Supervision Commission and granted it wide authority to monitor, investigate and sanction misconducts by Party and state agents. Corporatized SOEs and their state-appointed functionaries are formally included, with spill-over implications on affiliated network firms.

Internally: the Party was given a greater role in corporate governance with respect to internal monitoring as well as decision making. The latter has been taken form particularly concerning SOEs. I elaborate on these aspects in response to the next question.

These changes in corporate governance take part in a broader political economy shift where regulatory and economic decision-making powers are relocating from central government institutions to the CCP (alone or in hybrid). In my forthcoming book, I refer to this as a shift towards "a legalized politicization era", where the Party is increasingly encroaching on the authorities of state institutions blurring further the (perhaps only apparent) lines of Party/government separation.[51]

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[48] *Decisions Concerning Some Major Issues in Comprehensively Moving Forward Ruling the Country According to Law* (中共中央关于全面推进依法治国若干重大问题的决定)[*Zhonggong Zhongyang Guanyu Quanmian Tuijin Yifa Zhiguo Ruogan Zhongda Wenti de Jueding)*, adopted at the 4th Plenary Session of the 18th Central Committee of the CCP. Oct. 29, 2014. The broader trend was observed in Jianfu Chen, *Out of the Shadows and Back to the Future: CPC and Law in China*, ASIA PACIFIC LAW REVIEW 24(2), 176 (2016).

[49] Particularly since issued alongside the State Council. Jurisprudence discussions in China generally treat decisions and opinions by the State Council to have the same binding effect as administrative regulations. See, Jinrong Huang, *The Legal Definition and Effect of "Normative Documents"* ["规范性文件"的法律界定及其效力]("Guifanxing Wenjian" de Falü Jieding jiqi Xiaoli), LEGAL REVIEW (Jul. 2014), Research Center for Constitutional and Administrative Law of Renmin University of China, available here: http://www.calaw.cn/article/default.asp?id=10042

[50] E.g., *CPC Central Committee and State Council Opinions on Deepening the Guidance of State-Owned Enterprise Reform* (中共中央、国务院关于深化国有企业改革的指导意见)[Zhonggong Zhongyang, Guowuyuan guanyu Shenhua Guoyou Qiye Gaige de Zhidao Yijian] (Aug. 24, 2015) [hereinafter "SOE Reform Guiding Opinions"]; *Opinions of the CPC Central Committee and the State Council on Creating a Sound Entrepreneur Growth Environment, Advocating Excellent Entrepreneurship and Better Using Entrepreneurs' Role* [中共中央、国务院关于营造企业家健康成长环境弘扬优秀企业家精神更好发挥企业家作用的意见] (Zhonggong Zhongyang, Guowuyuan guanyu Yingzao Qiyejia Jiankang Chengzhang Huanjing Hongyang Youxiu Qiyejia Jingshen geng hao Fahui Qiyejia Zuoyong de Yijian), issued by the Central Committee of the CCP and the State Council, Sep. 8, 2017; *Opinions of the CCP Central Committee and the State Council on Creating a Better Development Environment and Supporting the Reform and Development of Private Enterprises* [中共中央、国务院关于营造更好发展环境支持民营企业改革发展的意见](Zhonggong Zhongyang Guowuyuan guanyu yingzao geng hao Fazhan Huanjing Zhichi Minying Qiye Gaige Fazhan de Yijian), issued by the CCP Central Committee and the State Council, Dec. 4, 2019; The *CCP Opinions on Strengthening the United Front Work of the Private Economy in a New Era*, [中共中央办公厅印发、关于加强新时代民营经济统战工作的意见] (Zhonggong Zhongyang Bangongting Yinfa, guanyu Jiaqiang Xin Shidai Minying Jingji Tongzhan Gongzuo de Yijian), issued by the General Office of the Central Committee of the CCP, Sep. 15, 2020.

[51] *Supra* note 2.

Q4: What is the role of CCP committees in corporate governance? How are they evolving, and how might they be used in the future?

The Charter of the CCP, as well as the PRC Company Law, prescribes a role for a Party organization (for simplicity, "Party committee") in any company established and registered in the PRC territory with at least three party members.[52] The CCP is thus recognized as a distinct corporate stakeholder with a reserved capacity within Chinese firms, whether private or state-controlled, with or without foreign investment.

The CCP itself, beyond any traditional shareholder role the state may have, thus became a legal corporate constituent with unique interests and a distinct capacity to convey, direct, and monitor the ways these interests will be pursued. Unlike the state's shareholding capacity, the internal operations of this CCP capacity in firms is not regulated and is not subject to any transparent corporate procedures (or other) checks and balances established in law.

The Party's presence in firms is not a new feature, it has been assigned in law at least since the first modern company law was enacted. Yet, its roles within firms and its relationship with other corporate governance bodies were opaque. Moreover, it was not deployed systematically outside several meaningful state-controlled firms. There has been a change in both respects:

More Systematic Deployment of Party Committees in Firms

In 2015, a joint CCP Central Committee and State Council document, "SOE Reform Guiding Opinions", adopted various provisions for "Party building" work within SOEs and emphasized the obligation to formally establish a Party committee.[53]

The obligation to establish a Party committee apply to all SOEs, extending to firms with mixed ownership and thus potentially also to enterprises with minority state shares. Similarly, all SOEs are required to incorporate Party committees and clarify their roles in their governing documents (articles of association).

Following such developments, in 2018, the Code of Corporate Governance of Listed Companies was amended to acknowledge the presence of a Party committee in *any listed company* (based on the provision of the PRC Company Law). Here too, only *state-controlled publicly listed firms* were required to include provisions about Party building work in their governing documents.[54]

While private firms are currently not required to show the same level of commitment to Party building as SOEs, there is certainly a noticeable push by the CCP to strengthen Party building work and

[52] Zhongguo Gongchandang Zhangcheng (中国共产党章程) [The Charter of The Communist Party of China] (as amended and promulgated by the Nat'l Cong. of the Communist Party of China, Oct. 24, 2017); 2005 Company Law, *supra* note 4, art. 19 ("The Chinese Communist Party may, according to the Constitution of the Chinese Communist Party, establish its organizations in companies to carry out activities of the Chinese Communist Party. The company shall provide necessary conditions to facilitate the activities of the Party.").

[53] SOE Reform Guiding Opinions, *supra* note 50, arts. 1(3) & 7. Art. 1(3) states: "The Party building of enterprises shall be comprehensively strengthened ... the Party organizations of SOEs shall enjoy a more solid statutory position in corporate governance, and fully display their core political role...".

[54] Code of Corporate Governance of Listed Firms, *supra* note 17, art. 5. To note, the Code is considered to be a standard setting document for "best practices".

establish Party committees within completely private firms as well. This push dovetails a broader effort to strengthen the interlinkages between the Party and the private sector, reflected in both rhetoric and party-state policies in recent years.[55]

Studies show that the number of firms with a Party organization incorporated in their charters has risen in recent years, including among firms that are listed outside mainland China.[56]

In mainland China, by 2019, of all non-financial *publicly listed* firms, approximately 30.3 percent amended their charters to reflect Party building provisions.[57] Of all non-financial listed SOEs (~1,008-1,078 firms), close to 90 percent amended their governing documents to reflect Party building provisions.[58] Variations were found across studies based on factors such as industry, ownership concentration of state as well as non-state shareholders, political connectedness, and whether the firm is cross-listed or not. Profs. Lauren Lin and Milhaupt found that close to 6 percent of privately owned listed enterprises (143 firms) voluntarily amended their governing documents to reflect the presence of a Party committee.

The number of private firms with a Party committee outside the listed-companies population is only partially available and is based mostly on party-state survey reporting. Surveys by the All-China Federation of Industry and Commerce (commissioned by organs of the Party-state) reflect a substantial increase in the ratio of private enterprises with Party organizations. By 2018, 48.3 percent of the surveyed private enterprises (3,973 surveyed firms) reported having established a Party organization, up from 35.6 percent in 2012. The survey notes significant variations based on geographic location and industry. These results, of course, do not say much on the absolute number of private enterprises with Party organizations.[59] Another official survey shows that over 92 percent of China's top 500 private enterprises have a Party organization.[60]

With respect to foreign-invested private firms, limited regional surveys suggest a lower presence of Party organizations in foreign-invested enterprises. For example, 12 percent of foreign-invested enterprises in Hangzhou reported in official data to have a Party organization out of a total of 3,248 enterprises surveyed.[61] 19 percent of Shanghai AmCham member organizations reported having a Party organization, out of a total 434 Shanghai AmCham survey respondent companies.[62]

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[55] While analysts tend to focus on the recent CCP opinions on strengthening the United Front Work, efforts to enhance the Party's influence on the private sector are long standing. For notable recent policies concerning the private sector see, *supra* note *50*. For recent attention in rhetoric see, *Xi Jinping: Speech at the Symposium of Private Enterprises,* PEOPLE'S DAILY, Nov. 1, 2018. For a general discussion see Dickson, WEALTH INTO POWER: THE COMMUNIST PARTY'S EMBRACE OF CHINA'S PRIVATE SECTOR, Cambridge: Cambridge University Press (2008).

[56] Sun Leqi, *yu 120 Zhongzigu sheli Dangwei quanli kong lingjia Dongshihui* [*More than 120 Chinese Stocks Set Up Party Committee Power to Overthrow the Board of Directors*], APPLE DAILY (Sept. 26, 2018), https://hk.finance.appledaily.com/finance/realtime/article/20180926/58722466.

[57] Lauren Yu-Hsin Lin & Curtis Milhaupt, *Part Building or Noisy Signaling? The Contours of Political Conformity in Chinese Corporate Governance*, EUR. CORP. GOVERNANCE INST. (law working paper No. 493/2020, Jul. 14, 2020).

[58] John Zhuang Liu and Angela Huyue Zhang, *Ownership and Political Control: Evidence from Charter Amendments*, 60 INT. REV. L. ECON. 1 (2019) (finding 84 percent of publicly listed SOEs amended their charter to incorporate Party building provisions by September 2018); Lin and Milhaupt, *ibid* (throughout 2015-2018, 12.79 percent of central SOEs and 9.19 percent of local SOEs were yet to adopt party building provisions).

[59] China 2019 Statistical Yearbook point to a total of over 16.2 million private companies by the end of 2017.

[60] Reports on the ACFIC surveys' results are available here: https://www.acfic.org.cn/fgdt1/zjgd/201905/t20190523_125262.html, http://www.acfic.org.cn/zzjg_327/nsjg/jjb/jjbgzhdzt/2020my5bq/2020my5bq_bgbd/202009/t20200904_244200.html.

[61] Neil Thomas, *Party Committees in the Private Sector: Rising Presence, Moderate Prevalence*, MACRO POLO, Dec. 16, 2020

[62] American Chamber of Commerce in Shanghai, 2018 China Business Report, p.19.

Additional Clarity on Party Committee Roles within Enterprises

Traditionally, the Party committee roles in enterprises were to disseminate Party line, policies, and principles, and to function as the body that organizes and unites Party members inside the organization. Party committees perform recruitment and training for new CCP members, hold study groups concerning Party ideology and policies, and organize other social activities. Party committees are also assigned a leadership supportive role for different mass organizations within enterprises (such as the Communist Youth League, trade unions).

In addition to these social and ideological functions, Party committees were given authorities concerning monitoring and participation in decision making. These two main functions of corporate governance have been more clearly delineated in recent years.[63]

Monitoring—oversight and disciplinary functions

In its monitoring capacity, the Party organization within firms is assigned to oversee not only internal observance of Party policy and discipline, but also compliance with state laws and regulations by Party members, state personnel, and "the people" (presumably those involved with the enterprise). [64] Its roles in this capacity are typically carried through another sub-level Party organization designated for discipline inspection work and led by the deputy of the Party committee secretary.

With respect to SOEs, broadly defined, the oversight and disciplinary capacities of party committees within firms have been given greater emphasis following the recent SOE Reform Guiding Opinions. The following excerpt from art. 7(26) is representative:

> "The Party organizations of SOEs shall… [it is required to] establish a practical *accountability system* which shall be *linked to enterprise appraisal*, and *investigate both the liabilities of the parties concerned to a case and the liabilities of relevant leaders*; develop more details, procedures, and systems for the dual leadership regime of SOE disciplinary inspection commission over subordinate ones; *strengthen and improve tour inspection of SOEs, and reinforce the supervision and restraint over the operation of power*; and, keep using the thinking and methods of the rule of law to *fight corruption, fine-tune anti-corruption institutions and systems, strictly enforce the provisions against formalism, bureaucracy, hedonism and extravagance*, and strive to build effective mechanisms where enterprise leaders dare not to, are not able to, and do not want to, engage in corrupt practices."

Beyond SOEs, based on relevant CCP and State Council Opinions, the Party is trying to assert itself a greater role in monitoring private firms as well, to enhance legal and political compliance. Private firms and entrepreneurs are also expected to assist in anti-corruption efforts.[65]

The CCP's internal monitoring capacity within firms supports the operations of the PRC's external oversight institutions—the National Supervision Commission through CCDI. A shift that has blurred the lines between enforcement against disciplinary violations, corruption, and corporate wrongdoing.

The corporate governance implications of enhanced CCP monitoring capacity within firms include the spread of fear governance, risk aversion, and potential managerial paralysis. As I noted earlier,

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[63] Groswald Ozery, *The Politicization of Corporate Governance*, supra note 1.

[64] The CCP Charter, as amended, *supra* note 52, Chapter 5, Arts. 32 (7),(8) & 33.

[65] For a list of relevant policy in the private sector and the specific provisions see, Groswald Ozery, *Illiberal Governance and The Rise of China's Public Firms,* supra note 1, p.48-49 fn 218 and 223.

there is an effort to offset some of these implications through incentive mechanisms, particularly by incorporating elements such as high-quality development factors and production efficiency levels into the assessment and promotion processes of political cadres, state officials, SOE managers, and private market participants (i.e., political career prospects).

Existing and potential positive contributions are present as well. Positive capital market reaction to enhanced CCP oversight in firms, increase in accountability of corporate insiders for wrongdoing, deterrence against corruption and corporate malfeasance, improvements in overall market regularity, and potential contributions to investors' confidence, have been noted in recent studies.[66]

Party role in decision making

There is an increasing concern both in and outside China that the roles of Party committees within firms extend, or will extend in the future, beyond their traditional ideological and social functions and even beyond monitoring into corporate decision making.

Indeed, at least concerning SOEs, Party committees now hold a direct and explicit role in internal governance. Such role has been formally established in the 2017 amendment to the CCP Charter, art 33: "The leading Party members groups or Party committees of state-owned enterprises shall play *a leadership role, set the right direction*, keep in mind the big picture, ensure the implementation of Party policies and principles, and *discuss and decide on major issues of their enterprise* in accordance with regulations."

The 2015 SOE Reform Guiding Opinions similarly calls to uphold the Party's leadership over SOEs, and together with subsequent regulations details 3 primary paths through which the Party committee is set to have a greater influence on internal governance[67]:

1) the Party committee is granted authority with respect to the management of personnel, including recommending, assessing, and nominating candidates for leading corporate positions;

2) encouraging cross-representation of board members, supervisory committee members, and members of the management with members of the Party committee, and merging the position of the chairman of the board with that of the Party secretary as the default;

3) setting the authority of the Party committee to oversee, audit, and assess major corporate decisions. This alone would push directors and managers to consult with the Party committee before making major decisions.

The term "SOEs" in the Guiding Opinions seem to be broadly interpreted, thus including potentially enterprises in which the state holds even a minority position. At the same time, however, the document emphasizes enhancing the role of market mechanisms, especially concerning mix-ownership enterprises. Managerial autonomy, market-oriented governance, and performance-based evaluation are repeatedly noted. The SOE Reform Guiding Opinions thus seem full of contradictory provisions.

A careful observer, however, would notice that the reform is designed to be pursued in a classified manner and distinguishes between various types of SOEs, such as commercial and public welfare SOEs, as well as between competitive industries and key fields such as national security and national

[66] See discussion in related studies in, *ibid.*

[67] These authorities are scattered along the provisions of the SOE Reform Guiding Opinions. For details and discussions on specific articles see, Groswald Ozery, *The Politicization of Corporate Governance*, supra note 1, pp. 25-33.

economic lifeline. The categorization affects the intended level of state involvement versus a greater degree of market forces and managerial autonomy.[68]

The same categorized approach is reflected concerning Party intervention as well. The Guiding Opinions note the need to refrain from a uniform approach:[69]

> "…the methods to set up Party organizations, and the responsibilities and management models thereof shall be scientifically determined according to the characteristics of different types of mixed ownership enterprises."

Accordingly, a circulated template text for revisions in the articles of associations of SOEs was devoted to wholly-owned state enterprises and state-controlled holding companies.[70] Subsequent CCP rules also affirm the need for a categorized approach with laxer applicability for enterprises with relative state shares.[71] Indeed, empirical studies have found that not all publicly-listed SOEs closely followed the distributed template for the articles of association revisions. Wide variations were found particularly around decision-making and personnel-related provisions.[72]

Clearly, the party-state walks a fine line trying to project a balanced approach towards SOEs by recognizing that "It is essential to correctly handle […] the relationship between reform, development and stability, and the relationship between making proper top-level designs and respecting grass-roots initiative…"[73]

With respect to the private sector, while there has been a rather successful push by the Party to set Party committees in the private sector as well,[74] the space intended for their active participation in internal governance is still largely vague. The various policies concerning the private sector mainly use non-obligatory rhetoric, such as private enterprises shall be guided to/encouraged/taught and directed/supported to take/explore ways to, etc.

There are also initial market indications that Party committees' involvement in the governance of private listed firms, particularly in day-to-day decision making, is more limited. For example, private-owned listed firms that amended their articles of associations following the recent Party-building pressures mainly adopted symbolic provisions (91.95 percent adopters on average), while avoiding provisions that allow greater control over personnel (15.72 percent adopters on average) or involvement in decision-making through prior consultation mandates (25.17 percent adopters on average).[75]

It is still too early to ascertain how the various corporate governance roles of the CCP will develop in the future nor how will they be implemented in practice across different firms and sectors. The long-

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68 SOE Reform Guiding Opinions, *supra* note 50, art. 2(4), 2(5), 2(6).

69 E.g., SOE Reform Guiding Opinions, *supra* note 50, art. 7(24); art. 3(9) similarly advocates to avoid a one size fits all approach in applying methods for personnel selection and appointment.

70 *Guanyu Zhashi Tuidong Guoyou Qiye Dangjian Gongzuo Yaoqiu Xieru Gongsi Zhangcheng de Tongzhi* [关于扎实推动国有企业党建工作要求写入公司章程的通知](Notice Regarding the Promotion of the Requirements of Incorporation of Party Building Work into the Articles of Associations of State-owned Enterprises), promulgated by Org. Dep't CCP & Party Comm. SASAC, Mar. 15, 2017.

71 The Communist Party of China Rules on the Work of Primary Organizations of State Owned Enterprises (trial) [中国共产党国有企业基层组织工作条例(试行)](*Zhongguo Gongchandang Guoyouziye Jiceng Zuzhi Gongzuo Tiaoli (shixing)*), issued by the Central Committee of the Chinese Communist Party, Dec. 30, 2019, art. 39.

72 Liu & Zhang, *supra* note 58, p.4 and Table 3; Yu-Hsin Lin & Milhaupt, *supra* note 57, Table 4.

73 SOE Reform Guiding Opinions, *supra* note 50, art. 1(2).

74 See discussion above on rate of adoption.

75 Liu & Zhang, *supra* note 58, p.4 and Table 3; Yu-Hsin Lin & Milhaupt, *supra* note 57, Table 4.

term social, political, and market effects are similarly uncertain at this point. Currently, at least, it seems that at the firm level, the Party is mainly intent on utilizing its corporate committees to ease up access to information and enhance monitoring and accountability (adherence to Party line, discipline, and laws). At the market level, Party committees as well as other Party building efforts, function as an additional communication channel between the Party and the market. Such channels can be used to encourage private firms to participate in major national strategic development plans, reducing coordination challenges and streamlining the party-state's overarching control over the broad course of China's market development.

Laws and policy rhetoric, as well as political-economic realities, suggest that the party-state's desire and ability to direct corporate decision-making at the firm-level, however, and particularly on a routine basis, is more limited than commonly assumed. Empirical work, such as interviews, surveys, and continuous observance of disclosures by listed companies should be done to affirm the long-term workings of the system.

Q5: How do you assess the impact of current U.S. restrictions on investment in Chinese companies listed on the Mainland? Is there anything the United States could do differently to target investment that could potentially benefit Chinese defense firms or otherwise fund companies acting contrary to U.S. national security interests?

To assess the impact of the current investment restrictions in Chinese Communist Military Companies (CCMC), one needs to work with data on the current and prospective scopes of U.S. investments in these firms. It is my general impression that there was not much groundwork on this prior to the issuance of the relevant Executive Order (13959). Considering the general scope of foreign investments in Chinese companies listed in the mainland (estimated at 3-6 percent of total equity and debt), it seems that foreign finance, and all the more so U.S public finance, is not a significant source of financing in Chinese listed companies, and by extension in CCMCs specifically. Draining such money will not pose a capital challenge to CCMCs expansion.

Similarly, from the perspective of China's prospect for greater global financial integration, such restrictions are likely to have a marginal impact.

Since I am not privy to the considerations made by the Department of Defense and the Treasury before each specific company was put on the list, I cannot make judgment as to whether portfolio investing restrictions are good from a national security perspective.

Yet, I believe that an ever-expanding approach to the current restrictions will mostly come at a cost for U.S. investors and the financial industry. Ultimately, sources of money are interchangeable and corporate nationality is fluid. Broader restrictions on portfolio investing, especially taken without similar restrictions by other global financial markets, will impose a burden on U.S. asset managers and investors. The industry might be pushed to find creative, costly ways to circumvent the restrictions through 3rd party countries and entities. Using U.S. global capital flows for geopolitical gains could also come at a cost for the credibility and reputation of the U.S. market as a hub for global financial participants.

Considering the relatively small share of U.S.-public investments in China and alternative global sources of capital, restrictions on portfolio investing would have little effect. Perhaps more effective would be to consider due-diligence obligations on asset managers and institutional investors for investments beyond certain scopes as well as a risk disclosure regime. Investment restrictions and preruling methods could be more productive in scrutinizing how capital is used in the FDI space (inbound as well as outbound), but in the public finance space they seem counterproductive.

Q6: The Commission is mandated to make policy recommendations to Congress based on its hearings and other research. Do you have any other recommendations for legislative action based on the topic of your testimony?

My first suggestion would be to invest in getting more and better data on China's financial integration, preferably from one or few designated sources (a designated research unit or 3rd party analyst), creating unified standards and data sets from which all agencies can draw.

There should be more research and more unity around the data. Take data on cross-border portfolio investments, for example; different government agencies rely on different 3rd party sources to collect fractions of information on aspects most concerting to them. This results in meaningful gaps and a lack of unity around the numbers. Clarity on fundamental concepts is also sorely lacking (e.g., is the data looking at companies? other forms of enterprise organization? what is "control", what is a "Chinese company", an "SOE", etc.)

Also on data, a proactive diagnostic approach should be taken to track and analyze the expansion of CCP presence in U.S.-invested Chinese firms. This can include initiating systematic surveys and informative sessions (e.g., through AmCham bodies, U.S. consulates and/or their U.S. investor).

Finally, there is clearly a gap between the interests and considerations of the U.S. security apparatus and those of the business community on various China policies. While this gap is natural, I believe it can and should be narrowed down. This can be achieved by shifting the mindset of the business community (corporate management and the investment industry) to consider long-term sustainable growth and the interests of all stakeholders. This shift might already be underway, and still, under the existing U.S. corporate governance framework, companies and investors have neither incentives nor fiduciary responsibility to consider anything but shareholder value (case law looks at "the best interests of the company" but this has de-facto been implemented as to maximize shareholder stock value as an easily measurable target) and many consider it for the short term.

This should be considered as part and parcel of any approach that strives to advance the interests of the United States by strengthening its core. Of course, we can never expect, nor should we, that businesses would replace their economic interests with national security. But if the core approach to economic growth will better protect the interests of all stakeholders, many potential threats from China would become less ominous (e.g., for inbound and outbound investments).

OPENING STATEMENT OF MEG RITHMIRE, F. WARREN MCFARLAN ASSOCIATE PROFESSOR, HARVARD BUSINESS SCHOOL

COMMISSIONER FIEDLER: Dr. Rithmire. Thank you.

DR. RITHMIRE: Thank you to the Commissioners for inviting me here today and to the capable staff of the Commission for getting us all organized.

So, my testimony will focus on the changing role of the Chinese state and China's capital markets, and in particular the increasing financial presence of the state outside of what has long been considered the state sector, which typically means firms that are majority-owned and controlled by parts of the Chinese state.

This expansion of state investment is novel in China's political economic history and really quite recent, accelerating especially single 2015 but beginning, really, in 2013.

It is, therefore, in my view quite early to make competent statements about the effects of this expansion. but nonetheless, several patterns have emerged in terms of the sources and logics, that have several important consequences that I do believe I'm able to discuss.

So, first, let me talk about the sources of state financial investment outside of majority state-owned firms. So, the first, which is probably the most well-known, is China's recent industrial policy, and especially Made In China 2025.

So, as the Commissioners probably know, the policy has controversially called for comprehensive upgrading and localization of China's manufacturing capabilities.

And the primary means of implementing this policy has been the creation of what are called government industrial guidance funds in strategic sectors such as semiconductors, artificial intelligence and electrical vehicles, among other things.

The funds are initially supplied by the state at several different levels, so central ministries, provincial, municipal governments, and so forth. And they're meant to be matched by private funds -- and this is critical -- managed by private capital management companies.

The language of the state planning documents makes quite clear that policymakers intend for the industrial policy to be, quote, market-driven and government-guided, meaning combining government steerage, as some have called it, with genuine market mechanisms that they hope work in genuine market ways.

It's worth noting regarding the industrial funds that tallying the totals of these funds is challenging for a number of reasons.

So, first, the funds exist at many different levels of government and they're constantly changing. So frequently, you hear something like Beijing has invested X amount of money in semiconductors.

It's actually not Beijing but a variety of actors who are inside and outside of the state who co-invest alongside one another with different reasons and sometimes with varying levels of coordination or no coordination.

Second, the funds themselves are announced as targets meant to signal the ultimate amount that any given actor hopes to invest in that fund.

So, the state contributions in this way are seed funding that private or social capital is meant to match so the actual amount of state funding itself in any given fund can be uncertain.

All of that said, the scope of state investment through the industrial guidance fund is quite simply enormous.

So, a recent estimate is that the total essential and local funds across all sectors is in excess of 10 trillion renminbi.

And again, that's going to be focused predominantly on high-tech sectors but its impact is distributed quite widely.

The second source is state-owned capital and investment in operation. And so these SOEs are new functions for SOEs that invest widely in state and in non-state firms.

This started in 2013 experimentally and sort of solidified around 2018 and the shift is from managing enterprises to managing state capital. And so again, it's the logic of industrial upgrading as well as optimizing the distribution of state capital through the Chinese economy.

So far, at least 18 central-level SOEs and countless other provincial and municipal ones have been identified as these state investment and capital management companies.

And lastly, there's the ad hoc, what I call ad hoc, because in fact, there's no evidence that it's coordinated by any plan or policymaker. And in fact, it can sometimes be evidence of corruption and malfeasance rather than state strategy.

And the ad hoc entry of capital has a couple of different sources. One is open market nationalizations which, since 2015, have occurred at a rate of about ten per year, which doesn't seem like a lot but in terms of the push towards mixed ownership reform, we're seeing the opposite. Which is instead of private capital entry into state firms, we see state capital entry into private firms.

Another source is state capital into relatively successful firms. And this, critically, well predates the 2015 benchmark that I gave for the large-scale deployment of state capital in the non-state sector.

So, recent research and corporate filings and detailed work on shareholding in China's largest and successful firms shows what many of us have observed anecdotally for years, which is that firms in China who have met with success have at some point received significant investment from state-connected firms or state-connected individuals.

So, what is the logic or intention of these changes?

So, rather ironically, the logic, even according to state documents, the economic rationale for extending state capital into the private sector has been to provide a fix to other institutional and economic problems generated by the outsized influence of the state sector.

So, what the state seems to want is industrial upgrading and innovation and it doesn't seem to trust traditionally state-owned enterprises to be able to do that kind of innovation, yet it also does not seem to trust the non-state financial sector to allocate capital in a way that does not generate excessive risk for the state.

So, as the state has clamped down on shadow-banking and other forms of corporate debt, because it's been alarmed about the emergence of those trends, it's offered itself as a financier to the private sector because of these dual desires for risk management and industrial upgrading and growth.

This distrust of the non-state financial sector should be understood as a major reason for the extension of state finance and state minority shareholding.

So, our research shows a massive expansion in state shareholding in 2015 as a result of the efforts of the so-called National Team to arrest the collapse in asset prices that year.

The logic here, and in many cases, is about maintaining economic and financial stability, so risk management rather than any long-term strategic planning.

So, what are the effects? So briefly let me give two ideas about what the effects might be on China's political economy. So, without getting too professorial, the first effect would be the introduction of new state agents and therefore new problems of control.

So, for decades we know that the view has been, basically, that managers at state-owned enterprises have been at least partially disciplined by Beijing because they're appointed by the Organizational Department of the CCP.

But clearly, managers at private firms and managers of private capital or managers of state capital that work at private firms are not subject to the organizational department of the CCP.

So, it's not clear how exactly they can be disciplined to carry out the state goals. So, let me be very clear about this. There's a tendency to assume a firm has state capital and therefore is an arm of Beijing, but this assumption is incorrect.

Examples abound from large investment companies that have entered state receivership, like China Minsheng Investment Group because of their own mismanagement to even high-tech sector entrants that are really just frauds trying to manipulate state policies for personal gain.

So, second is that state shareholding introduces enhanced monitoring capacity for the state so the expansion and perceived expansion of financial risk has motivated the Party state to seek this greater monitoring capacity over non-state firms.

So, lastly, let me just say a few words about U.S. policy that I hope will be helpful to the Commissioners as you consider how to deal with these new trends.

So, first, it's my observation that American financial firms, especially those who participate extensively in China's HR markets under the QFII, the Qualified Foreign Institutional Investor program, are savvy observers of China's markets and the state's mechanisms for intervention.

It is not my assessment that they are in need of protection via U.S. policy from the unique political economic features of Chinese markets.

And lastly, at least so far, the increasing presence of state capital outside of majority state-owned firms is best understood as a pathway, but a potential one for state intervention and firm affairs.

As the Commissioners surely know, the Chinese legal landscape has in recent years expanded the state's legal purview for intervention.

We don't know yet how these laws will be enforced but the potential for consequential state intervention is clearly there.

And I would read state minority shareholding in the same way, as a pathway for potential influence rather than surefire evidence of state intent and control.

Thank you.

PREPARED STATEMENT OF MEG RITHMIRE, F. WARREN MCFARLAN ASSOCIATE PROFESSOR, HARVARD BUSINESS SCHOOL

Meg Rithmire
F. Warren McFarlan Associate Professor, Harvard Business School
Testimony before the U.S.-China Economic and Security Review Commission
U.S. Investment in China's Capital Markets and Military-Industrial Complex
March 19, 2021

I. Introduction

Thank you for inviting me today to speak on this important topic.

I am a specialist in China's domestic political economy, but not necessarily U.S. investment in China, and so my testimony will focus on the changing role of the Chinese state in China's capital markets, and in particular the increasing financial presence of the state outside of what has long been considered the "state sector," meaning firms majority-owned and controlled by arms of the Chinese state. This expansion of state investment is novel in China's political-economic history and quite recent, accelerating especially since 2015. It is, therefore, too early to make confident statements about its effects, but nonetheless several patterns have emerged in terms of sources and logics and these patterns have several important consequences. Let me speak about these origins, means, and potential consequences before turning to U.S. policy.

II. Sources and Means

Based on research I have done with my co-author[1] and my reading of related work in the field, there appear to be three prominent sources of state capital. These sources have somewhat different logics, but are not mutually exclusive.

1) Recent industrial policy, especially Made in China 2025.

China's most recent industrial policy, Made in China 2025, has called for comprehensive upgrading and localization of China's manufacturing capabilities. A primary means of implementing the policy has been the creation of "government industrial guidance funds" (政府产业引导基金, or industry funds) in strategic sectors, such as semiconductors, artificial intelligence, and electric vehicles, among others. Funds are initially supplied by the state at many levels—central ministries, provincial or municipal governments, and so forth—but matched by private funds and managed by private capital management companies. In 2014, the State Council called for the creation of multiple professionally managed private equity funds to make equity investments on behalf of the state, a model Beijing had piloted (with the Ministry of Industry and Information Technology's encouragement) in 2013 with two private firms to serve as managers of the Beijing Integrated Circuit Industry Investment Fund with $1.2 billion in target capital.[2]

[1] See Hao Chen and Meg Rithmire. "The Rise of the Investor State: State Capital in the Chinese Economy." Studies in Comparative and International Development. September 2020: 257-277.

[2] China State Council, "Guideline for the Promotion of the Development of the National Integrated Circuit Industry", https://members.wto.org/CRNAttachments/2014/SCMQ2/law47.pdf, accessed December 2018; Ministry of Industry and Information Technology, "Public Announcement on Selecting Management Companies for the

To be sure, large-scale state funding for industrial upgrading is not novel in China, but the matching of public and private funds is, as is the large-scale provision of state capital for the private sector. Ding Wenwu, president of the national IC fund, explained: "we separated the ownership and management of the fund. All personnel appointments of the management company follow ordinary market principles and no executive is a government official… But contrary to the private sector, we would also invest in risky projects that may not yield short-term financial returns but hold strategic value."[3] The language of state planning documents makes quite clear that policy-makers intend for the industrial policy to be "market drive, government guided," meaning combining government "steerage" with genuine market mechanisms.[4]

Here it is important to note that tallying the totals of these funds is challenging for a few reasons. First, because the funds exist at many layers of government and are constantly changing, statements like "Beijing is investing x billion dollars in [some sector]" should be met with skepticism. Frequently, it is not "Beijing" but a variety of actors inside and outside the state who co-invest, all with different reasons. Second, the funds are announced as targets meant to signal ultimate amounts. The state contributions are seed funding that "private" or "social" capital is meant to match, so the actual amount of state funding in any given fund is uncertain. Again, confident statements about numbers should be greeted with some skepticism.

That said, the scope of state investment through the industrial guidance funds is enormous. A recent estimate is that the total of central and local funds across all sectors is in excess of 10 trillion RMB, focused predominantly on high tech sectors but distributed widely.[5]

2) State-Owned Capital Investment and Operation

The second source is the expansion of central and local shareholding companies who extend state capital into the non-state sector. The introduction of investment as a function of state capital entails a delegation of authority to firms, both state and private, as managers of state capital that involves significant autonomy. In November 2013, at the Third Plenum of the 18th Party Congress, a Central Committee decision on "comprehensively deepening reform" formally encouraged the establishment of "state-owned capital operation companies" (国有资本运营公司) to shift from "managing enterprises" to "managing capital."[6] In July 2014, the first two official "state capital investment companies" were established under two SASAC-managed

Private Equity for Integrated Circuit Industry Development," (关于北京市集成电路产业发展股权投资基金遴选管理公司的公告) December 18, 2013, http://www.miit.gov.cn/n1146285/n1146352/n3054355/n3057643/n3057649/c3625593/content.html.

3 China Electronics News, "Scoop: Ding Wenwu Interprets the Big Fund (独家：丁文武详解大基金)" October 23, 2017. http://www.sohu.com/a/199698015_464075.

4 Barry Naughton. *The Rise of China's Industrial Policy, 1978-2020*. Universidad Autonoma de Mexico. 2021. pp. 100-101.

5 Naughton 2021, pp. 107-108.

6 State Council. "Decision on Major Problems of Deepening Reform."《中共中央关于全面深化改革若干重大问题的决定》November 15, 2013. http://www.gov.cn/jrzg/2013-11/15/content_2528179.htm.

SOEs, COFCO (a food processing company) and SDIC (an investment holding company).[7] A year later, a state directive on SOE reform explicitly encouraged state capital into private firms: "state-owned capital invests in non-state-owned enterprises in various ways" to "focus in public services, high-tech, eco-environmental protection, and strategic industries… and non-state-owned enterprises with large development prospects and strong growth potential."[8]

That policy document also set a 2020 deadline for "decisive achievements" in SOE reform, requiring SOEs to demonstrate progress in "mixed ownership reform." The deadline may explain why some local SOEs have pursued the purchase of listed, non-state companies: to provide shells for SOEs to enter markets and appear as if they have conducted mixed-ownership reforms. After the promulgation of the policy 2015, the number of listed firms owned by either the central or local state have increased: from 344 to 368 for central firms and from 662 to 700 for local firms (all the while, the number of total firms listed has remained 3682).[9]

In February 2016, two new "state-owned capital operation enterprise" pilots were established within China Chengtong Holdings Group and China Reform Holdings, both asset management holding companies governed by SASAC. Both established multiple funds, with additional shareholders primarily drawn from other SOEs, that provided capital for SOEs to buy listed private firms. By the end of 2018, these two managed total assets of RMB 900 billion.[10] By December 2018, an additional 18 central SOEs were designated to be state-owned capital investment enterprises.[11] A policy document issued in 2018 established implementation guidelines for these types of pilot firms, stating the objectives to include "promoting the rational flow of state-owned capital, optimizing the investment of state-owned capital, concentrating on key industries, key areas and advantageous enterprises" in "good service of national strategy needs."[12] While official language remains vague about the distinction between capital investment and operation, interviews suggest that capital operation firms may take a more active investment stance, perhaps managing distressed assets, while investment firms would handle more passive investments.

3) Ad hoc and local state capital

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[7] State capital investment companies are called 国有资本投资公司in Chinese. SASAC. "SASAC Held Press Conference on the 'Four Reform.'" 《国务院国资委举办"四项改革"试点新闻发布会》July 15, 2014. http://www.sasac.gov.cn/n2588020/n2588072/n2591426/n2591428/c3731034/content.html

[8] State Council. "Guiding Opinions on Deepening Reform of State-Owned Enterprises."《关于深化国有企业改革的指导意见》September 13, 2015. http://www.gov.cn/zhengce/2015-09/13/content_2930440.htm.

[9] Interestingly, the share of market capitalization owned by the state has stayed relatively steady at both levels, around 24% for the central state and around 19% for the local state. This would mean that the firms that fall under state ownership are not of substantial value. Data collected from WIND.

[10] Li Yifang. 2019 "Increase in A Share Equity Transfer: Reason, Features, and Policy Recommendations." (**A** 股股权转让大增的特征、原因及政策建议). Shanghai Securities Research Report (上证研报). Number 8, p. 16. Note that China Chengtong Holdings Group's website lists these partners in the establishment of the group's "China Structural Reform Fund Corporation Limited." http://www.cctgroup.com.cn/cctgroupen/about_us/group_profile/index.html.

[11] We provide a list of these firms in Supporting Information Table 1.

[12] State Council. "State Council suggestions on implementing the pilot program in promoting state-owned capital investment and operating companies." 国务院关于推进国有资本投资运营公司改革试点的实施意见. Document No. 23. July 14, 2018. http://www.gov.cn/zhengce/content/2018-07/30/content_5310497.htm

As the central state has emphasized the need for state capital investment and operation, local governments have joined central shareholding funds and SOEs in pursuing investment in the private sector. Beginning in the second half of 2017—after the establishment of central-level experimental state capital investment and operation enterprises but before the 2018 Document providing official guidance on these firms—local SASACs began to establish state-owned capital investment and operation companies. Local investment companies have, in many cases, gone beyond minority investment, frequently engaging in "ownership transfer" of private, listed firms—essentially nationalization through open market equity purchases.

According to formal reports from the Shanghai and Shenzhen stock exchanges, these kinds of transfers are not large in number, but the trend is a significant one. Since 2016, listed firms have changed their controlling owner from private to state at an average rate of ten per year. This number was as high as 23 firms in 2018. Of all of the listed firms that undergo major ownership reforms, the clear trend in 2017 and 2018 is that most of these firms are private, not state-owned (306 in 2018, double the number of privately-owned firms to undergo equity transfer in 2017).[13] Ultimately, the rate of open-market nationalization appears to exceed privatization in an upending of the connotation of "mixed ownership reform," which has been the emphasis of SOE reform in recent years.

Most examples of private firms falling under state control involve distressed firms or large conglomerate firms under tremendous political and financial pressure. In many cases, firms experiencing a suspension in trading for a significant amount of time are eventually purchased by local SASACs, as was the case with a technology company in Anhui (Changxin Technology) and several others in Fujian in 2018. Those who have welcomed state capital have argued that state investment or ownership helps distressed firms access capital and resources, while others (especially academic economists) have worried that "mixed ownership reform" is inviting state capital into the private sector rather than the other way around. In the cases of large, distressed conglomerate firms, heavy pressure from regulators has forced companies like HNA, Dalian Wanda and Fosun to unwind some of their global purchases; HNA reportedly sold its 7.6% stake in Deutsche Bank to a group comprising a number of state shareholding firms, including CIC and CMIG, profiled below. Some of Anbang Insurance's assets were taken over by local SOEs in Xiamen and Shenzhen after the company was nationalized and its chairman jailed in early 2018.[14]

Yet much of what I would describe as ad hoc state capital entry is not at all into unsuccessful firms and predates the 2015 ballpark I am providing for when the state became a massive shareholder. Recent research in corporate filings and detailed work on shareholding in China's

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[13] Li Yifang. 2019 "Increase in A Share Equity Transfer: Reason, Features, and Policy Recommendations." (**A** 股股权转让大增的特征、原因及政策建议). Shanghai Securities Research Report (上证研报). Number 8, p. 2 and 9.

[14] Chen, Yanqing. 2018. "Entry of local state capital into private enterprises continues: more than 10 private a-share companies will become state-owned this year (地方国资入主民企再掀高潮：今年超 10 家民营 A 股公司将变身国企)", *Tencent News: Finance,* October 9, 2018

largest firms[15] shows that many firms in China who have met success have, at some point, received significant investment from state-connected firms (e.g. SOEs) or state-connected individuals. I describe this as ad hoc because there is no evidence it is coordinated by any planner or policy-maker, and in fact can sometimes be evidence of corruption and malfeasance rather than state strategy.

III. Logics and Intentions

Rather ironically, an economic rationale for extending state capital to the private sector has been to provide a fix to other institutional and economic problems generated by the outsized influence of the state sector. Private firms have been systematically excluded from China's capital markets, leading them to rely on a "shadow banking" ecosystem in which lenders connect to firms beyond the reach of regulators, sometimes using banks as intermediaries but off the balance sheet.[16] China's shadow banking industry has ballooned in recent years, and regulators have sought to combat the "systemic risk" of corporate debt and un- and under-regulated financial products by cracking down on shadow banking platforms and big borrowers. While the crackdown on shadow banking may have reduced associated risks, it nonetheless further restricted financing for non-state firms, ironically prompting the state to **offer itself as financier** to the private sector.[17]

Relatedly, a motivation for state investment has been **industrial upgrading**, which policy-makers have (perhaps correctly) theorized is unlikely to come from firms it has traditionally funded, i.e. state-owned enterprises. New science and technology plans and industrial policy emphasizes frontier technology industries, and the movement of state capital into non-state firms in these sectors a feature of the party-state's distrust of the innovative capabilities of SOEs on the one hand and distrust of the non-state financial sector on the other.

This **distrust of the non-state financial sector** should be understood as a major reason for the extension of state finance and state minority shareholding. Our research shows a massive expansion of state shareholding in 2015 as a result of the efforts of the so-called "national team" to arrest the collapse in asset prices that year. At the height of the state's intervention, state shareholding firms (and principally Central Huijin and CSF) held shares in over half of the firms listed on the Shanghai and Shenzhen exchanges. In 2019, those two funds retained positions in 1,175 firms, about evenly split between private and state-owned firms.[18] The logic here, and in many cases, is about maintaining economic and financial stability—risk management— rather than any long-term strategic planning. Here we see the party-state's intolerance for market discipline, even when that discipline promises to correct distortions and imbalances, such as correction for the bubble that developed in 2014-2015.

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[15] Chong-En Bai, Chang-Tai Hsieh, Zheng Song, and Xin Wang. "Special Deals from Special Investors: The Rise of State-Connected Private Owners in China," Working Paper 2020. https://faculty.chicagobooth.edu/-/media/faculty/chang-tai-hsieh/research/special-deal-special-investors.pdf.

[16] Kinda Hachem. 2018. "Shadow Banking in China." *Annual Review of Financial Economics*. 10:287-308.

[17] Xiao Gang. "Manage the Pace and Intensity of Risk Management and Promote the Healthy Development of the Asset Management Industry – Report for the 2019 China Wealth Management 50 Forum." Xinhua News, August 20, 2019. http://www.xinhuanet.com/money/2019-08/20/c_1124896522.htm Note: Xiao Gang is the former Chairman of China's Securities Regulatory Commission.

[18] See Chen and Rithmire 2020, p. 267-269.

Overall, we should see state investment and shareholding as a product of the party-state's desire to have a financial system that allocates capital to non-state firms but also its unwillingness to entrust financial allocation to non-state actors. Theoretically, a more transparent financial system subject to market discipline would push capital to productive firms in frontier sectors, but that would require legal developments and a tolerance for financial instability that are incompatible with the party-state's focus on risk management and desire to preserve the status of state firms, financial and non.

IV. Effects

As I stated above, it is too early to say systematic things about the political or economic effects of the expansion of state investment, for example whether firms that have the state as a minority shareholder experience greater access to capital or revenue growth or somehow espouse political views or take actions that show party-state "control" in some way. Instead, let me say a few things about potential consequences.

1) New state "agents" and problems of control. For decades, the scholarly view has been that managers at SOEs have been at least partially disciplined by Beijing because they are appointed by the Organizational Department of the CCP. Clearly, managers at private firms and managers of private capital are not, and therefore it is difficult to see how effective they will be at carrying out the state's strategic goals. Let me be very clear: there is a tendency to assume that a firm that has state capital is an arm of Beijing, and this assumption is incorrect. We know that it has been difficult to manage principal-agent problems in state-owned firms, and has been much more difficult with this new layer of private actors outside the disciplinary hierarchy of the party-state. Examples abound:
    1. Large conglomerate firms with obfuscated state shareholding who, thanks to ballooning debt and sprawling overseas investments, threatened financial instability and were nationalized.[19]
    2. Newly-founded "private" investment companies with state backing, such as China Minsheng Investment Group (中民投), who entered state receivership within a few years because of self-dealing and basic theft of state resources.[20]
    3. Local and national entrants into frontier tech markets who manage to secure extensive state resources for developing semiconductor fabs and are later exposed as fraudulent (Wuhan Hongxin) or existentially overextended (Tsinghua Unigroup).

My point is that the expansion of state capital presents as many complex threats to the state's influence among non-state firms as it does potential extensions of state influence.

2) Enhanced monitoring capacity of the state. The expansion and perceived expansion of "financial risks" in recent years has motivated the party-state to seek

[19] The best examples are Anbang Insurance (entered state receivership in 2018) and HNA, which declared bankruptcy in 2021.
[20] For an extensive discussion of this, see Chen and Rithmire 2020: pp. 269-271.

greater monitoring capacity over non-state firms. Regulatory agencies were surprised in the mid-2010s by the emergence of novel financial platforms and technologies, by the expansion of corporate debt, and by the rapid internationalization of domestic firms, each of which posed unique financial and political stability risks.

V. U.S. Policy

I would like to offer a few observations that, I hope, will be helpful to the commissioners as you consider U.S. policy.

First, it is my observation that American financial firms, especially those who participate extensively in China's A-shares markets under the Qualified Foreign Institutional Investor (QFII) program, are savvy observers of China's markets and the state's mechanisms for intervention. It is not my assessment that they need protection via U.S. policy from the unique political economic features of Chinese markets.

Second, I am not alone in characterizing China's financial policies as opportunistic and experimental.[21] As American policy-makers craft approaches to dealing with China's changing state capital management, I caution them against seeing strategic coordination in everything Chinese funds and firms do. As I have endeavored to clarify, the recent expansion of state capital in China's economy has multiple agents and logics, and the presence of state capital from one or even multiple sources in a firm should not be read as evidence of state control or data from which to glean state intentions.

Third, at least so far, the increasing presence of state capital outside majority state-owned firms is best understood as a pathway for possible state intervention in firm affairs. As the commissioners surely know, the Chinese legal landscape has, in recent years, expanded the state's legal purview for intervention in firms and control over firm assets.[22] We do not yet know how these laws will be enforced, but the potential for consequential state intervention is clearly there. I would read state minority shareholding in the same way, as a pathway for potential influence rather than surefire evidence of state intent and control.

[21] See, for example, Naughton 2021.
[22] For example, the National Intelligence Law (2017). http://www.npc.gov.cn/npc/c30834/201806/483221713dac4f31bda7f9d951108912.shtml

OPENING STATEMENT OF ZACHARY ARNOLD, REEARCH FELLOW, CENTER FOR SECURITY AND EMERGING TECHNOLOGY

COMMISSIONER FIEDLER: Mr. Arnold, please?

MR. ARNOLD: Yes, good morning. Chairman Borochoff, Chairman Fiedler, Members of the Commission, thank you for the opportunity to testify today.

Together with my colleagues at the Center for Security and Emerging Technology, a nonpartisan data-driven think tank within Georgetown University, I research trends related to global investment and emerging technologies, particularly artificial intelligence and advanced semiconductors.

My written testimony to the Commission addresses a range of issues, including China's current position in various technologies, how China's technological development strategy relies on financial capital flows, and the State's prominent role in allocating capital to specific firms and sectors, for example, through the mechanism of government guidance funds.

I would be glad to explore these issues during the question-and-answer period but in these brief initial remarks, I'd like to begin with an overview of the companies active in China's emerging and strategic technology sectors.

These sectors are diverse. With some exceptions, traditional State-owned enterprises are less active at the cutting edge. More often, the commercial sector has taken the lead in these emerging technologies, as is the case in United States and in other countries.

China's artificial intelligence sector illustrates the range of players involved. Publicly traded firms in this space include diversified tech companies such as the BAT firms, Baidu, Alibaba, and Tencent, and many of the other members of China's AI national team.

There are also large companies in other industries, such as Ping An in Insurance, Hikvision in video equipment, which have been launching AI subsidiaries and lines of business in order to diversify or to support other activities.

And then there are firms that are specialists in different aspects of the AI ecosystem. So examples would include Cambricon, which is a developer of AI-specialized computer chips that is listed on the Shanghai Exchange, and iFLYTEK, a specialist in speech and language processing technology, which is traded in Shenzhen.

Now, in addition to publicly traded companies, there are myriad privately held firms competing in China's AI sector, from the very large, think Huawei or SenseTime, to hundreds or possibly thousands of smaller startups that are active across a range of AI input and application areas.

Now, whether publicly traded or not, Chinese AI companies are entangled with the government in many ways. The extent and the nature of these ties varies from company to company and from context to context.

But at a minimum, directly or indirectly, all benefit from the Chinese Government's large and sustained investments in AI and related technologies.

Now, in absolute terms, U.S. and foreign investors also have a large presence in China's tech sector.

For example, they buy shares in Chinese tech companies on exchanges in New York, Hong Kong, and the mainland, and they invest billions in venture capital into Chinese startups.

However, China's domestic capital markets are maturing and the Party is pouring enormous sums into strategic and emerging sectors.

As a result, foreign capital and in particular American capital are not limiting factors in

China's technological development today, in my judgment.

This means, for example, that restricting U.S. investment in mainland-listed tech companies would probably be ineffective at best in terms of China's technological development. I understand this issue is of particular interest to the Commission.

CSET's review indicates that Chinese investors own most of the outstanding shares and high-profile mainland-listed tech companies, while U.S. investors hold small stakes.

Forcing U.S. investors to liquidate would not necessarily have a large effect on these Chinese companies. More likely, investors outside the United States and on the mainland of China would be happy to fill the gap.

And if all else fails, remember that the Chinese Government is willing to invest copiously in companies and sectors it considers strategic.

In the unlikely event U.S. investment controls seriously threaten the capital supply of one of these sectors, the Chinese Government would very likely just provide a lifeline itself.

Now to be clear, there are good reasons we might control U.S. investment in China's technology sector.

Chinese tech companies have been implicated in grave human rights abuses and intentionally or not, their technology enables the Chinese Communist Party and its strategy for authoritarian rule.

It's entirely reasonable to think that American capital should not be used for these ends.

I personally believe we should restrict U.S. investment consistently and transparently in companies that violate human rights or pursue similar harmful activities.

But we can't assume these policies will materially affect China's technological development, especially in the medium and long term.

Now, to the extent investment controls are imposed, U.S. policymakers do have some ways to make them more likely to have an impact.

Any investment restrictions should be multilateral and they should focus on the few transactions that are likely to pose serious national security risks.

For example, when unique know-how or trade secrets are likely to be transferred from a U.S. investor to a Chinese target as part of the transaction.

It's critical to note that in order to be able to target these deals, the federal government will need to invest in analytic capacity that's currently lacking, such as better open-source intelligence capability.

But in parallel, policymakers should exploit America's larger and more durable advantages over China, advantages in domains other than financial investment.

For instance, America's ability to attract the world's top scientists, engineers, and entrepreneurs is a unique asset that has long been critical to our economic and national security.

Xi Jinping has described talent as, quote, the first resource, end quote, in his country's quest for technological independence. And China is working hard to attract both talented partners and Chinese ex-patriates with mixed results to date.

In my judgment, consolidating our talent recruitment advantage over China including, critically, by fixing our restrictive and outdated immigration laws, would do more for America's national security than restricting U.S. investment in Chinese tech companies.

Now, we have other assets that are also worth reinforcing.

These include robust alliances with technologically sophisticated peer nations, dominant positions in certain choke-point technologies fundamental to many capabilities, such as high-end computer chips and chip manufacturing equipment, a diminished but enduring soft power advantage, and a market-driven economic system in which innovators and entrepreneurs can thrive.

If America wants to remain a contender in the global competition for technological leadership, it must protect and build on these strengths.

I thank the Commission for its time and I look forward to your questions.

PREPARED STATEMENT OF ZACHARY ARNOLD, REEARCH FELLOW, CENTER FOR SECURITY AND EMERGING TECHNOLOGY

Testimony before the U.S.-China Economic and Security Review Commission

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

Zachary Arnold

Research Fellow, Center for Security and Emerging Technology, Georgetown University

March 19, 2021[1]

Chairman Borochoff, Chairman Fiedler, members of the Commission: Thank you for the opportunity to testify today.

Together with my colleagues at the Center for Security and Emerging Technology (CSET), a nonpartisan, data-driven policy think tank within Georgetown University, I research trends related to global investment in emerging technologies, particularly artificial intelligence (AI) and advanced semiconductors. My testimony will focus on these areas in addressing the themes suggested by the Commission. I will cover the following points:

- **The technological competition between the United States and China is dynamic and hard to score; any U.S. advantages cannot be taken for granted.** The U.S. and its allies have advantages in many technologies, but these advantages may not be durable or geopolitically meaningful.

- **Many types of businesses, with varying relationships to the government, are fueling China's technological development.** China's cutting-edge tech companies range from small startups to massive corporations. These firms draw support from the government in many ways; some are more tightly state-linked than others. Traditional state-owned enterprises play a limited role.

- **China's technology innovators need capital, and China's government intervenes heavily in capital allocation.** Individual Chinese companies benefit from the largesse of the central, provincial, and local authorities, with resultant harm to their competitors in the U.S. and elsewhere.

- **Government guidance funds exemplify the potential strengths, weaknesses, and uncertainties of China's approach.** These public-private investment vehicles are channeling massive amounts of capital into strategic technologies. Despite their potential strengths, they have often faltered in practice, and their contribution to China's long-term technological development remains uncertain.

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[1] Thanks to Ashwin Acharya, Martin Chorzempa, Danny Hague, Saif Khan, Lorand Laskai, Ngor Luong, Anna Puglisi, Helen Toner, and Lynne Weil for helpful input. All errors are mine.

- **Foreign investors are active in China's technology sector, but they are not central players.** Capital, particularly American capital, is not currently a limiting factor in China's technology industry. Chinese tech firms depend more on other types of foreign inputs, such as expertise.

- **U.S. restrictions on investment on mainland China exchanges are unlikely to meaningfully affect the state of play.** China's technology strategy doesn't depend on these capital flows. Broader investment restrictions might have more impact, but would risk significant collateral damage to American investors.

- **Any U.S. restrictions on investment in China should be multilateral, better informed, and part of a broader strategy to maintain the technological advantage of the United States and its democratic allies.** Investment restrictions may have a role to play, if well targeted and coordinated with allies. However, shoring up U.S. advantages in human capital and other domains would probably have a greater impact.

The technological competition between the United States and China is dynamic and hard to score; any U.S. advantages cannot be taken for granted

Any appraisal of China's technological competitiveness should begin by acknowledging that we have incomplete, uncertain information about Chinese science and technology. In recent years, China has moved surprisingly fast in domains from genomic editing to military aviation.[2] The Chinese government has also invested heavily in monitoring, acquiring, and adapting scientific and technological advances in the United States and other countries. The United States has made no similar effort, and as a result, we lack insight into many aspects of China's technological enterprise.[3] Our understanding of China's defense-related technological development is especially limited. The Chinese government is notoriously opaque about military matters, and any relevant information published in the open tends to be in Chinese-language outlets that often go untranslated.

This uncertainty notwithstanding, experts believe that the United States and its allies currently enjoy an advantage in many technologies relevant to defense and national security.[4]

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[2] Jon Cohen and Nirja Desai, "With its CRISPR revolution, China becomes a world leader in genome editing," ***Science***, August 2, 2019, https://www.sciencemag.org/news/2019/08/its-crispr-revolution-china-becomes-world-leader-genome-editing; Liu Zhen, "China military's landmark J-20 stealth fighter started a decade of modernisation," ***South China Morning Post***, January 31, 2021, https://www.scmp.com/news/china/military/article/3119615/china-militarys-landmark-j-20-stealth-fighter-started-decade.

[3] William Hannas and Huey-Meei Chang, ***China's STI Operations: Monitoring Foreign Science and Technology Through Open Sources*** (Center for Security and Emerging Technology, January 2021), https://cset.georgetown.edu/research/chinas-sti-operations/.

[4] See, e.g., the USCC testimony of Jeffrey Ding (June 7, 2019) (discussing artificial intelligence); Andrea Gilli and Mauro Gilli, "Why China Has Not Caught Up Yet: Military-Technological Superiority and the Limits of Imitation, Reverse Engineering, and Cyber Espionage," ***International Security***, vol. 43, no. 3, p. 141, https://www.mitpressjournals.org/doi/full/10.1162/isec_a_00337.

This advantage is greatest, and probably most durable, in areas where implicit "know-how" and accumulated human capital are most important, and in areas where incumbency confers a large advantage (for example, through the existence of natural monopolies), making it hard for Chinese entrants to catch up.[5] Examples include high-end semiconductors, semiconductor manufacturing equipment, and turbofan engines.[6] The U.S. advantage over China in "breakthrough" fundamental research is also widely acknowledged in both nations, though its strategic relevance is debated.[7] Areas of probable Chinese advantage, or at least rough parity, include facial recognition and materials science.[8]

However, this type of scorekeeping leaves out key dimensions of the technological competition between China and the United States. In fact, even if China's technology trailed America's across the board, America still might not have a significant military or geopolitical advantage.

First, emerging technologies evolve quickly and unpredictably. National leads in any particular technology may evaporate, or be made irrelevant. For instance, Chinese companies' cutting-edge facial recognition systems use deep learning techniques that emerged into widespread use only a few years ago.[9] In this dynamic environment, China will have opportunities to "leapfrog" to the cutting edge in many sectors, and it intends to seize them.[10] Continued U.S. leadership will depend on our ability to cultivate a robust innovation ecosystem that stays one step ahead.

Second, the key technologies of our era involve complex combinations of many different inputs. Rarely, if ever, does a single nation or firm control all of these inputs. This means even America's greatest technological advantages are rooted in interactions with many other countries, China prominent among them. Today, American pharmaceutical companies use Chinese-manufactured ingredients, Silicon Valley's tech giants open labs in China and around the world to access the talented researchers they need, and U.S. semiconductor firms depend on revenue from Chinese markets to fund costly research into cutting-edge computer chips. These exchanges provide the United States important benefits, but they also create

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[5] See generally Andrea Gilli and Mauro Gilli, "Why China Has Not Caught Up Yet: Military-Technological Superiority and the Limits of Imitation, Reverse Engineering, and Cyber Espionage," ***International Security***, vol. 43, no. 3, p. 141, https://www.mitpressjournals.org/doi/full/10.1162/isec_a_00337.

[6] See id. at 182-84; Saif M. Khan, ***The Semiconductor Supply Chain: Assessing National Competitiveness*** (Center for Security and Emerging Technology, January 2021), https://cset.georgetown.edu/research/the-semiconductor-supply-chain/.

[7] See William Hannas and Huey-Meei Chang, ***China's Access to Foreign AI Technology: An Assessment*** (Center for Security and Emerging Technology, September 2019), 7-8, https://cset.georgetown.edu/research/chinas-access-to-foreign-ai-technology/.

[8] See, e.g., Lauren Dudley, "China's Ubiquitous Facial Recognition Tech Sparks Privacy Backlash," ***The Diplomat***, March 7, 2020, https://thediplomat.com/2020/03/chinas-ubiquitous-facial-recognition-tech-sparks-privacy-backlash/; Sarah O'Meara, "Materials science is helping to transform China into a high-tech economy," ***Nature***, March 20, 2019, https://www.nature.com/articles/d41586-019-00885-5.

[9] See generally Dave Gershgorn, "The data that transformed AI research—and possibly the world," ***Quartz***, July 26, 2017, https://qz.com/1034972/the-data-that-changed-the-direction-of-ai-research-and-possibly-the-world/.

[10] Lauren Dudley, "China's Quest for Self-Reliance in the Fourteenth Five-Year Plan," ***CFR Net Politics***, March 8, 2021, https://www.cfr.org/blog/chinas-quest-self-reliance-fourteenth-five-year-plan.

vulnerabilities and potential chokepoints. America may have a technological advantage in the sense that its medicines, software, and computer chips are currently better than their Chinese competitors, but in an interdependent world, the geopolitical impact of this advantage may be limited. Chinese policymakers understand this, and have encouraged and manipulated interdependence in key domains in order to build their leverage.

Third, many, if not most, of today's emerging and strategic technologies must be adapted from commercial to defense use, adding another tricky dimension to the question of technological advantage. Former Secretary of Defense Ashton Carter put it bluntly: "all technology of consequence for protecting our people, and all technology of any consequence at all, [once] came from the United States and came from within the walls of government. Those days are irrevocably lost .... [now] I've got to go outside the Pentagon no matter what."[11] America may boast the world's most innovative technologies, but if the government and military can't effectively acquire, adapt and deploy them, the national defense won't benefit. For its part, though some aspects of its "military-civil fusion" efforts are easily exaggerated, China has shown signs of being able to rapidly field new defense platforms and commandeer its nominally private sector for state purposes.[12] If it can generalize and extend these capabilities, and nurture other connections between the defense sector and market-oriented innovators, China could benefit enormously.

In short, America may currently lead China in many technologies, but these leads are not necessarily durable or consequential. America's geopolitical advantage will turn not only on the sophistication of our technologies, but also on the continuing vibrance of our broader innovation system, the nature and extent of our technological interdependence with China and other nations, and our ability to move commercial technologies into the public sector.

Many types of businesses, with varying relationships to the government, are fueling China's technological development

China's technology sector is diverse. Traditional state-owned enterprises (SOEs), the leaders in earlier phases of China's industrialization, play a less significant role than they once did. They still have a large footprint in China's broader economy, and remain dominant in some sectors, including sectors directly related to China's military, such as aircraft and nuclear science. But in many other emerging technologies, the commercial sector has taken the lead. Academic researchers, market experts, and technologists agree that SOEs tend to be less active at the cutting edge - though there are exceptions, and state-owned firms continue to

[11] Eric Johnson, "Former Defense Secretary Ash Carter Says AI Should Never Have the "True Autonomy" to Kill," ***Vox***, May 13, 2019, https://www.vox.com/recode/2019/5/13/18617081/secretary-defense- ash-carter-ai-lethal-kill-ethics-harvard-facebook-kara-swisher-decode-podcast.

[12] See, e.g., William Greenwalt and Dan Patt, ***Competing in Time: Ensuring Capability Advantage and Mission Success through Adaptable Resource Allocation*** (Hudson Institute, February 25, 2021), 36, https://www.hudson.org/research/16717-competing-in-time-ensuring-capability-advantage-and-mission-success-through-adaptable-resource-allocation; Zach Dorfman, "Tech Giants Are Giving China a Vital Edge in Espionage," ***Foreign Policy***, December 23, 2020, https://foreignpolicy.com/2020/12/23/china-tech-giants-process-stolen-data-spy-agencies/. On military-civil fusion, see Elsa B. Kania and Lorand Laskai, ***Myths and Realities of China's Military-Civil Fusion Strategy*** (Center for a New American Security, January 28, 2021), https://www.cnas.org/publications/reports/myths-and-realities-of-chinas-military-civil-fusion-strategy.

provide the underlying infrastructure, such as energy and telecommunications, on which emerging technologies depend.[13]

Instead, a panoply of market-oriented firms is pushing Chinese technology ahead. China's AI sector illustrates the range of players involved:

- **Large, diversified public tech companies**, such as the "BAT" firms (Baidu, Alibaba, Tencent), which have massive AI operations alongside activity in other sectors, from gaming to warehousing.
- **Large, tech- and AI-focused public companies** specializing in different aspects of the AI ecosystem. ***Examples: iFlyTek (AI applications), Cambricon (AI hardware).***
- **Large public companies in other industries**, many of which are launching AI subsidiaries and lines of business in order to diversify or to support other activities. ***Examples: Ping An Insurance, Hikvision, Guangzhou Automobile Industry Group.*** Some state-owned enterprises fit this description. ***Examples: State Grid, China Telecom.***
- **Large privately held companies**, in many cases much larger than their publicly traded counterparts. ***Examples: Huawei, SenseTime, Megvii.***
- **Startups and small- and mid-size privately held companies** active across a range of AI input and application areas.

It is important not to confuse the limited role of SOEs with the absence of the state itself. In China's "state capitalist" economy, innovative enterprises from small startups to the largest tech giants are entangled with the government in myriad ways. They may be founded within public universities and research centers; receive equity investment from state-backed investors; participate in industry alliances and standards organizations formed by the government; borrow money on favorable terms from state banks; work with government agencies to acquire technology and attract business partners from abroad; benefit from regulations restricting their foreign competitors; incorporate the Communist Party into their corporate governance; modify products to suit the government's preferences; serve the state as a customer, or even be commandeered for public purposes; and so on. In short, though it formally owns and controls less of the market in emerging technologies such as AI, the Chinese state is still pervasive in these sectors.

That is not to say, however, that innovative companies all march in lockstep with the government, or that Party bureaucrats are micromanaging any particular company's

[13] See, e.g., "Who can become the 'new SOEs' of this new digital infrastructure?" [数字新基建，谁能成为「新国企」？], ***Taihe Industry Observer*** [钛禾产业观察], April 15, 2020, https://mp.weixin.qq.com/s/vDuDYcmAGrQQqzZykOnlxQ?fbclid=IwAR08sUDOIFr3rPJ6WZoepZC4dVRpdbAeaDKuk-Md-iheRK0kJRDFbe8W9Pk (translated in Jeffrey Ding, "ChinAI #91: Introducing Taihe (China's mini Defense One?) - Let's Read it Together," ***ChinAI Newsletter***, April 27, 2020, https://chinai.substack.com/p/chinai-91-introducing-taihe-chinas); Kevin Zheng Zhou, "State Ownership and Firm Innovation in China: An Integrated View of Institutional and Efficiency Logics," ***Administrative Science Quarterly***, vol. 62, no.2, p. 375 (October 10, 2016), https://journals.sagepub.com/doi/abs/10.1177/0001839216674457.

activities on a regular basis. The boundary between the Chinese state and private business is often illusory, but still, Chinese entrepreneurs and businesspeople have their own agendas. Like their counterparts anywhere else, they are focused on profit, don't always welcome government involvement, and sometimes may be able to fend it off.[14] More fundamentally, the Chinese technology sector is too vast, complex, and dynamic for the government to fully control - even a government with the reach of the Chinese Communist Party. Rather, a give and take exists, and the extent of alignment with the Chinese state varies meaningfully in different settings and from company to company, in each case according to that company's specific activities and circumstances.

China's technology innovators need capital, and China's government intervenes heavily in capital allocation

Emerging technologies need capital to develop, and finance is a central aspect of China's technological ecosystem. It is especially important in a few parts of this ecosystem. Early-stage businesses need access to risk-tolerant capital - typically venture capital - to establish themselves before they can "go to market" and begin earning revenue from customers. And among more mature companies, some need much more capital than others. For example, semiconductor factories cost tens of billions of dollars; a single high-end lithography machine, used to draw nano-scale circuits into computer chips, sells for about $170 million.[15] Electric vehicles are another capital-intensive sector; China's EV industry has received infusions of cash from the government as it develops.[16] Even technologies thought of as less costly to develop, such as software, may demand lots of capital at the cutting edge. No factories are needed to build machine learning models, but the most advanced models can require millions of dollars' worth of energy and computing time to develop.[17]

In the past, China's government might have addressed these needs by distributing resources directly to companies, or operating the companies as extensions of the state. These practices continue today to some extent. However, China's leaders have begun to move beyond the traditional and inefficient mechanisms of the command economy. Increasingly, their aim is to use market mechanisms to mediate between the state's high-level technological priorities and the industries and firms that can actually enact them.[18] China's state-owned financial

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[14] See, e.g., Sun Yu, "Jack Ma's Ant defies pressure from Beijing to share more customer data," ***Financial Times***, March 1, 2021, https://www.ft.com/content/1651bc67-4112-4ce5-bf7a-d4ad7039e7c7.

[15] CSET calculation based on data in ASML's Q4 2020 Financial Report, available at https://www.asml.com/en/investors/financial-results/q4-2020.

[16] See Daniel Ren, "Xpeng's US$1.98 billion credit line from state-owned banks suggests China is throwing weight behind leading electric vehicle firms," ***South China Morning Post***, January 12, 2021, https://www.scmp.com/business/companies/article/3117462/xpengs-us198-billion-credit-line-state-owned-banks-suggests.

[17] Or Sharir et al., ***The Cost of Training NLP Models: A Concise Overview*** (April 2020), https://arxiv.org/pdf/2004.08900.pdf; "The cost of training machines is becoming a problem," ***The Economist***, June 13, 2020, https://www.economist.com/technology-quarterly/2020/06/11/the-cost-of-training-machines-is-becoming-a-problem.

[18] See, e.g., pp. 18-19 of the Government Work Report from this year's "Two Sessions": "We will fully leverage the decisive role of the market in allocating resources and give better play to the role of government, to ensure better alignment between an efficient market and a well-functioning government. We will continue to expand market

institutions, its increasingly mature domestic capital markets, and the bevy of domestic and foreign investors eager for high-return technology investments provide enabling infrastructure for this strategy.

Chinese authorities at the central, provincial, and local levels use many tools to guide capital to strategic industries. Individually, some of them would not be out of place in other countries. Together, though, they are an unusually broad and pervasive toolkit for allocating capital. Among the more important tools:

- State banks provide below-market loans and trade financing to favored technology companies.
- Government leaders designate particular industries and firms as nationally strategic, which signals that these industries and firms are likely to enjoy government support (financial, regulatory or otherwise), encouraging others to invest in them.
- SOEs, state investment funds, and public-private "guidance funds," discussed in detail below, make equity investments in a wide range of firms, from small startups to tech giants.
- Government-sponsored industry alliances, incubators, and technology parks help connect promising startups to state and nonstate investors.

It's also worth noting that Chinese government agencies are major buyers in industries such as surveillance, enterprise software, and "smart city" technology. This isn't an intervention in the capital markets per se, but it does provide a financial bulwark for these industries.

China's tech companies rely on government-provided and government-"guided" capital to varying degrees. Companies seeking to break into especially capital-intensive sectors, such as the semiconductor and EV firms discussed above, may struggle to raise enough money from private investors, leaving the government to fill the gap - in some cases, to the tune of billions of dollars.[19] Meanwhile, startups seeking to commercialize unproven technologies often face a financial "valley of death": they need money to scale up production, but don't yet have paying customers. The government is well suited to provide "patient capital" to sustain these companies. On the other hand, industries with lower capital needs and ready markets may have easier access to private capital (or less need for it in the first place) and tend to rely less on public support. Examples include consumer finance, social media, business services, and advertising.

China's government's overt role in that country's capital markets has provoked extreme, often contradictory reactions abroad. Some observers take its ambitious strategy documents

access, pilot a comprehensive reform on the market-based allocation of production factors, and ensure equal protection for the property rights of various market entities in accordance with the law." (available at https://drive.google.com/file/d/1IpKBavUfkZsvmQcnLDdd4yepq7nvbWqp/view)

[19] See generally ***Measuring distortions in international markets: The semiconductor value chain*** (Organisation for Economic Cooperation and Development, December 12, 2019), https://www.oecd-ilibrary.org/trade/measuring-distortions-in-international-markets_8fe4491d-en.

at something close to face value, warning that China's purposeful "state capitalism" will out-innovate and outcompete the messy, decentralized American way. Others are incredulous, pointing to widespread corruption and bloat in the Chinese system and a string of high-profile failures, such as the recent, spectacular implosion of a semiconductor manufacturer backed by the Wuhan city government.[20]

In reality, it's too early to know whether China's current approach, and the capital allocation strategies it involves, can build a sustainable, comprehensive innovation ecosystem. Clearly, the individual companies receiving financial support from, or at the behest of, the state enjoy an advantage over their unsubsidized competitors at home or abroad. And the Chinese government's ability and willingness to direct capital can drive domestic progress in specific, selected sectors. Still, the distortions and inefficiencies this strategy introduces could undermine China's broader technological development in the long term. A closer look at guidance funds, one of the Chinese government's main tools for allocating capital, illustrates these dynamics.

Government guidance funds exemplify the potential strengths, weaknesses, and uncertainties of China's approach[21]

Guidance funds are public-private investment vehicles that aim to both produce financial returns and further the state's industrial policy goals. Sponsored by central, provincial, and local authorities, they generally focus on strategic and emerging sectors, such as artificial intelligence. As of the first quarter of 2020, Chinese officials had set up 1,741 guidance funds, with a cumulative registered target size of 11 trillion RMB (1.55 trillion USD) and about 4.76 trillion RMB (672 billion USD) in actual funds raised.[22]

Each guidance fund's governmental sponsor typically contributes 20 to 30 percent of the fund's capital, then seeks to raise the rest from so-called "social capital" investors, which may include SOEs, corporations, and state and non-state financial institutions. To entice these social capital investors, government sponsors in guidance funds may forgo their own interest payments, assume other investors' losses, or provide other incentives. The government's sizable capital contributions also reduce other investors' exposure and signal the government's commitment to relevant industries.

Guidance funds have developed in three phases. In the first phase, lasting through the early- to mid-2010s, central and local governments set up a number of initial funds and established a supporting legal framework. The second phase saw a boom in guidance funds between

[20] See Kevin Xu, "China's 'Semiconductor Theranos': HSMC," ***Interconnected***, March 4, 2021, https://interconnected.blog/chinas-semiconductor-theranos-hsmc/.

[21] This section of my testimony is adapted from Ngor Luong, Zachary Arnold, and Ben Murphy, ***Understanding Chinese Government Guidance Funds*** (Center for Security and Emerging Technology, March 2021), https://cset.georgetown.edu/research/understanding-chinese-government-guidance-funds/, and Ngor Luong, Zachary Arnold, and Ben Murphy, ***Chinese Government Guidance Funds: A Guide for the Perplexed*** (Center for Security and Emerging Technology, March 2021), https://cset.georgetown.edu/research/chinese-government-guidance-funds/.

[22] "Government Guidance Fund Trends" [政府引导基金动态], Zero2IPO [情科研 究中心], 2020, https://m.pedata.cn/special_do/govFund/web (archived at https://perma.cc/67SK-BH7R).

2015 and 2018, fueled by central government policies, relatively loose regulation, new restrictions on other types of local government spending, and trend-chasing among provincial and local bureaucrats. In the third phase, beginning around 2018, formation and fundraising slowed down, due in large part to broader economic headwinds in China and tighter regulations.

Guidance funds are unquestionably helping to mobilize money and other resources for emerging and strategic industries, and they have several potential advantages over traditional Chinese industrial policy mechanisms:

- By bringing the profit motive into industrial policy, the guidance fund model could reduce the inefficiency and corruption associated with subsidy schemes and other traditional policy tools. Chinese policymakers hope that professional fund managers and profit-oriented social capital investors will discipline the guidance funds in which they participate, and bring in capital, information, contacts, and expert judgment beyond what the state can provide.

- With their government backing and strategic mandate, guidance funds are also well positioned to provide patient capital, a critical resource for emerging technologies.

- Finally, guidance funds can complement and amplify other industrial policy measures, producing robust, holistic support for emerging and high-tech businesses. To attract high-quality targets, many guidance fund institutions provide or coordinate other incentives, such as state-sponsored technology parks, R&D incentives, and talent recruitment plans. In the ideal case, this produces comprehensive ecosystems of support, fostering local economies of scale and helping emerging and strategic businesses take off.

However, these advantages are not always realized. Many guidance funds are poorly conceived and implemented, and the model as a whole is often inefficient:

- Guidance funds frequently raise much less money than planned, and much of the money they do raise is never actually invested. New funds routinely plan to raise hundreds of millions or even billions of yuan, but struggle to raise money from both public sponsors and social capital investors, who are wary the funds will produce competitive returns. Funds that do raise money often fail to find targets, leaving money idle in bank accounts.

- There are too many guidance funds. By the first half of 2019, local governments alone had set up 1,300 guidance funds with frequently overlapping policy objectives, leading to shortages of social capital investors, suitable investment targets, and fund management talent. The same year, one market research firm noted that "[a] western province has several special government guidance funds for investing in biotech and pharmaceuticals, and one city in central China has nearly ten government guidance funds for strategic emerging industries."[23]

- Many guidance funds are badly managed. Guidance funds may engage in wasteful or even illicit activities, such as facilitating unauthorized borrowing by local governments. Sponsors often rely on inexperienced, excessively risk-averse bureaucrats or poorly incentivized investment managers to manage them.

- Especially at the subnational level, guidance funds frequently ignore market fundamentals, which can lead to bad investment decisions. "A biotech and pharmaceutical industry cannot be developed in every province," one official complained in 2016, "but every province is blindly trying to create such an industry through [guidance] funds........It's 'national strategic industry' this, 'emerging industry' that.........Government guidance funds have entered an era of wild growth and we must get to the root of the problem."[24]

- There is some evidence that guidance funds crowd out private capital, undermining their goal of increasing the total pool of capital available for strategic industries and potentially making the market as a whole less efficient.

For the most part, these flaws are rooted in basic issues of institutional capacity and contradictions in the guidance fund model—between government aims and the profit motive, and between national visions for technological development and local economic and political interests. These fundamental issues are present, to some extent, in all forms of state-directed capital allocation in China, and it's doubtful they will be overcome.

But although guidance funds may never meet their sky-high ambitions, they could still help China push ahead in technology, especially considering the Chinese government's apparent willingness to tolerate some amount of waste and inefficiency in pursuit of its technological goals. Critically, even with its problems, the guidance fund mechanism probably improves on the deeply flawed traditional policy tools that might otherwise be used to support strategic industries, such as direct government ownership or cash handouts to state-favored companies. It remains to be seen whether it is improved enough to meaningfully advance China's ambitious technological agenda.

Foreign investors are active in China's technology sector, but they are not central players

In absolute terms, foreign investors have a large presence in China's tech sector. According to official statistics, the Chinese IT sector alone attracted over $11 billion in foreign direct

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[23] "Report on the Development of Chinese Government Guidance Funds 2019 (Part 1)" [2019年中国政府引导基金发展研究报告 (上篇)] at 23, Zero2IPO [清科研究中心], October 17, 2019, available for purchase at https://research.pedaily.cn/report/pay/201910172139.shtml (archived at https://perma.cc/44UC-K7HH).

[24] Fan Yuan [范媛] and Li Jingjing [李晶晶], "Government Guidance Funds Need to be Cleaned Up" [政府引导基金需要正本清源], China Economic Times [中国经济时报], December 2, 2016, http://lib.cet.com.cn/paper/szb_con/480397.html (archived at https://perma.cc/82RN-WAWQ).

investment (FDI) in 2018.[25] Foreign investors buy and sell shares in China's publicly traded tech giants on exchanges in New York, Hong Kong, Shanghai, and Shenzhen, and invest in privately held technology companies through venture capital and private equity transactions.

Foreign tech companies also participate directly in China's technology marketplace. They launch joint ventures and R&D labs, take part in Chinese industry alliances, buy stakes in promising Chinese startups, and invest millions or even billions of dollars in their Chinese operations.[26] According to CSET analysis, the last five years saw well over 700 corporate venture capital transactions involving Chinese startups and foreign investors, with investors in the United States, East Asia, Great Britain, and the European Union accounting for most of the deals. (See Figure 1 at the end of this document.) For example, Intel's venture arm announced investments in two Chinese semiconductor firms just last spring.[27]

In context, however, these activities seem somewhat less significant. $11 billion in IT-related FDI in 2018 is nothing to scoff at, but firms in one subset of China's IT industry, the artificial intelligence sector, raised over $12 billion in disclosed venture capital and private equity funding alone that same year.[28] China- and Hong Kong-based companies made over five thousand corporate venture capital investments in China since 2016, far outpacing their peers from other countries.[29] On the public markets, the "BAT" companies and U.S.-listed firms do have significant foreign ownership. However, our informal review suggests that foreign shareholders hold a small minority of shares in key mainland-listed firms active in AI hardware, facial recognition, and other applications critical to the state's technological strategy. (See Figure 2 at the end of this document.) And many important companies, such as Huawei and SenseTime, are not publicly traded at all.

There is also some evidence that American investors' role in particular is diminishing over time. The Rhodium Group reports that U.S. foreign direct investment in China's IT sector has declined steadily over the past several years, amidst generally flat or falling overall U.S.-

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[25] China Statistical Yearbook 2019, Table 11-16, available at http://www.stats.gov.cn/tjsj/ndsj/2019/indexeh.htm. Official FDI statistics are prone to error, but this at least gives a sense of the magnitude of FDI flows. China's leading sources of FDI include Singapore, Taiwan, South Korea, Japan, the United States, and Great Britain. See PRC Ministry of Commerce, "News Release of National Assimilation of FDI From January to October 2018" (November 22, 2018), http://english.mofcom.gov.cn/article/statistic/foreigninvestment/201812/20181202815485.shtml.

[26] See, e.g., Thilo Hanemann et al., ***Two-Way Street - US-China Investment Trends - 2020 Update*** (Rhodium Group, May 11, 2020), https://rhg.com/research/two-way-street-us-china-investment-trends-2020-update/; Roxanne Heston and Remco Zwetsloot, ***Mapping U.S. Multinationals' Global AI R&D Activity*** (Center for Security and Emerging Technology, December 2020), https://cset.georgetown.edu/research/mapping-u-s-multinationals-global-ai-rd-activity/; Ngor Luong et al., ***China's Artificial Intelligence Industry Alliance: Understanding China's AI Strategy Through Industry Alliances*** (Center for Security and Emerging Technology, forthcoming 2021).

[27] "Intel Capital invests in Chinese chip companies amid tech tensions," ***Reuters***, May 13, 2020, https://www.reuters.com/article/us-intel-investments-china/intel-capital-invests-in-chinese-chip-companies-amid-tech-tensions-idUSKBN22P0GK.

[28] Zachary Arnold, Ilya Rahkovsky, and Tina Huang, ***Tracking AI Investment: Initial Findings from the Private Markets*** (Center for Security and Emerging Technology, September 2020), 20, https://cset.georgetown.edu/wp-content/uploads/CSET-Tracking-AI-Investment.pdf.

[29] According to CSET's analysis of the Crunchbase dataset; see Figure 1 for methodology.

China FDI flows.[30] U.S.-China venture capital investment has also fallen,[31] and Crunchbase data indicate a similar decline in U.S.-investor corporate venture capital transactions.[32]

These trends have many causes. Geopolitical developments are important, and in individual cases may be enough on their own to unravel cross-border financial relationships. In the aggregate, though, other factors often have a greater effect on foreign investment in China's tech industries. These include:

- Shifting dynamics within specific markets and investment channels. For example, both domestic and foreign VC investment in China contracted sharply in the past few years amidst overvaluation concerns.[33]
- Broader macroeconomic trends in China and in investor nations.
- The growth and maturation of China's domestic capital markets.
- Domestic controls on inbound investment. For example, the Chinese government strictly limited foreign M&A activity within China until recently.[34]
- State-subsidized loans and equity investment displacing foreign capital.
- The COVID-19 pandemic and resulting disruptions in the global financial markets.

Whatever the causes, the fact remains that foreign money plays a secondary role in today's Chinese technology sector.

However, capital is not the only resource Chinese firms draw from abroad. Foreign talent and expertise have also played a major part in China's technological development. The flow of these resources across borders - often in tandem with financial investment - is harder to track than dollars, but in this domain, too, there are some indications that China is growing less reliant on foreign inputs. The artificial intelligence sector is a case in point: Chinese universities have developed well-regarded AI programs, Chinese firms employ world-class AI researchers and engineers active across a range of applications, and in some AI subdomains, such as facial recognition, Chinese firms are innovating at the cutting edge or close to it.

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[30] According to data from the U.S. China Investment Hub (Rhodium Group and National Committee on U.S. China Relations, 2020), https://www.us-china-investment.org/.

[31] Adam Lysenko et al., ***Disruption: US-China Venture Capital in a New Era of Strategic Competition*** (Rhodium Group, January 13, 2020), https://rhg.com/research/disruption-us-china-venture-capital-in-a-new-era-of-strategic-distrust/.

[32] 2020 saw 43 corporate venture capital transactions with U.S. investors and Chinese targets, down from 48 in 2019 and 75 in 2018. See text accompanying Figure 1 for methodology.

[33] See, e.g., "Investors Escape Artificial Intelligence" [投资人逃离人工智能], ***36kr***, published September 26, 2019, https://36kr.com/p/5250586; Rita Liao, "China Startup Deals Shrink as Fundraising for Investors Plummets," ***TechCrunch***, July 16, 2019, https://techcrunch.com/2019/07/16/vc-pe-funding-slows-in-china/; "China's Venture Capital Boom May Be Turning into a Bust," ***The Straits Times***, July 9, 2019, https://www.straitstimes.com/business/banking/chinas-venture-capital-boom-may-be-turning-into-a-bust.

[34] See Linklaters, "A new era of liberalised inbound investment," https://www.linklaters.com/en-us/insights/thought-leadership/china-report/china-inbound-investment-a-new-era-of-liberalised-inbound-deal-flow.

AI may not be entirely representative, but we see similar signs in sectors from genomics to quantum science.[35] Not every sector fits the mold, though. For instance, Chinese semiconductor firms are still aggressively recruiting seasoned engineers and managers from Taiwan and elsewhere.[36] In semiconductor manufacturing and other industries that rely heavily on the implicit "know-how" and experience of human workers, Chinese firms will probably continue to rely on cross-border flows of expertise for some time - more than they depend on foreign capital, in any event. Even in more competitive sectors, such as artificial intelligence, China still benefits tremendously from talented, Chinese-born "sea turtles" returning from education and work in the United States.[37] Investment restrictions and other policies that address these flows, rather than focusing solely or primarily on financial capital, may be more likely to have an impact. I will revisit this point at the end of my testimony.

U.S. restrictions on investment in mainland-listed companies are unlikely to meaningfully affect the state of play

A 2020 executive order, relying on authority in Section 1237 of the FY1999 National Defense Authorization Act (PL 105-261), restricts U.S. investment in "Communist Chinese military companies" as designated by the Department of Defense. Some of the companies designated thus far, such as surveillance giant Hikvision and state-owned defense contractor Norinco, are traded on exchanges in Mainland China.[38]

In my judgment, restricting U.S. investment in mainland-listed technology companies will have little impact on China's technological development. Only a small subset of China's tech companies are currently traded on the mainland.[39] Startups, by definition, are not publicly traded at all. The BAT companies are traded in New York or Hong Kong. And as noted above, many of the largest and most strategically relevant Chinese tech firms remain privately held.

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[35] See, e.g., Philip Ball, "Physicists in China challenge Google's 'quantum advantage,'" ***Nature***, December 3, 2020, https://www.nature.com/articles/d41586-020-03434-7; Jon Cohen and Nirja Desai, "With its CRISPR revolution, China becomes a world leader in genome editing," ***Science***, August 2, 2019, https://www.sciencemag.org/news/2019/08/its-crispr-revolution-china-becomes-world-leader-genome-editing.

[36] See Kensaku Ihara, "Taiwan loses 3,000 chip engineers to 'Made in China 2025,'" ***Nikkei Asia***, December 3, 2019, https://asia.nikkei.com/Business/China-tech/Taiwan-loses-3-000-chip-engineers-to-Made-in-China-2025; JingyiGe, "South Korea Fights to Guard Its Trade Secrets From China," ***Voice of America***, March 3, 2021, https://www.voanews.com/east-asia-pacific/south-korea-fights-guard-its-trade-secrets-china.

[37] See generally He Huifeng, "China's overseas graduates return in record numbers into already crowded domestic job market," ***South China Morning Post***, September 21, 2020, https://www.scmp.com/economy/china-economy/article/3102384/chinas-overseas-graduates-return-record-numbers-already.

[38] See generally "Chinese Military Companies Sanctions," Office of Foreign Assets Control, https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/chinese-military-companies-sanctions

[39] This may change in the coming years, as U.S.-China tensions continue and China pressures its tech companies to list at home, but it's unclear how fast and how complete such a shift would be. Chinese firms still have strong incentives to list in the United States. See Quentin Webb and Jing Yang, "Chinese Companies Head Home to Raise Money, as Beijing's Relations With U.S. Fray," ***Wall Street Journal***, Sept. 27, 2020, https://www.wsj.com/articles/chinese-companies-head-home-to-raise-money-as-beijings-relations-with-u-s-fray-11601199002; Jing Yang, "'The Gold Standard': Why Chinese Startups Still Flock to the U.S. for IPOs," ***Wall Street Journal***, August 13, 2020, https://www.wsj.com/articles/the-gold-standard-why-chinese-startups-still-flock-to-the-u- s-for-ipos-11597313278.

Restricting U.S. investment in the mainland exchanges would not directly affect any of these companies.

On the other hand, high-tech companies traded in Shenzhen or Shanghai, such as speech recognition powerhouse iFlyTek, AI chip designer Cambricon, and cybersecurity specialist Qihoo 360, would be exposed to these restrictions. Shenzhen-listed Hikvision, for example, has been dropped from indices and exchange-traded funds since its designation by the Department of Defense.[40] But mainland shareholders own the vast majority of outstanding shares in these companies; U.S. investors hold small stakes. (See Figure 2 at the end of this document.) Forcing them to liquidate these stakes would not necessarily harm the companies. More likely, investors from China or other countries would quickly fill the (small) gap.

Finally, recall that the Chinese government has shown itself willing to invest copiously in firms it considers strategic. In the unlikely event that U.S. investment restrictions posed a serious, lasting threat to any such firm, the Chinese government would probably just compensate with capital of its own.

In short, mainland-listed tech firms companies to face little risk from U.S. investment restrictions. For American policymakers hoping to influence China's technological development, two responses are possible. First, broaden these restrictions to cover many more companies - Chinese firms listed elsewhere, for example, or all privately held tech companies with potential ties to China's military. Second, develop well-informed, narrowly tailored investment restrictions targeting true bad actors while focusing on levers of influence outside the investment domain. For three reasons, I believe this second approach is sounder.

First, expanded U.S. investment restrictions would be hard to target properly. The ties between Chinese companies and the government are often difficult to trace, and as the scope of restrictions expands, drawing a line that can reliably separate actors and activities of concern becomes harder. Virtually any Chinese high-tech firm could be said to have some relationship with the state, if only by virtue of laws that give all Chinese companies a general obligation to cooperate with the government.[41] And most of the emerging technologies central to today's geopolitics, such as artificial intelligence, are dual-use or general-purpose technologies that can theoretically be used for both peaceful and military uses. This complicates the task of identifying companies worth targeting with investment restrictions, and makes it more likely that broad restrictions will prevent legitimate transactions that pose relatively little risk to U.S. national security.

Second, targeting too many Chinese companies or sectors - or simply giving up, and deeming all Chinese companies presumptively off limits - could cause serious collateral damage. American investors have good reasons to invest in Chinese tech companies. They offer strong

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40 See Max Chen, "China ETFs Could Look Different as the U.S. Blacklists Military Companies," ***ETF Trends***, December 8, 2020, https://www.etftrends.com/smart-beta-channel/china-etfs-could-look-different-as-u-s-blacklists-military-companies/.

41 See Ashley Feng, "We Can't Tell if Chinese Firms Work for the Party," ***Foreign Policy***, February 7, 2019, https://foreignpolicy.com/2019/02/07/we-cant-tell-if-chinese-firms-work-for-the-party/.

returns and an important opportunity to diversify portfolios; private-market investment in Chinese companies can also help U.S. corporations unlock lucrative Chinese markets and access talented Chinese workers. Given these benefits, it's unsurprising that despite severe geopolitical headwinds, American companies are still taking stakes in Chinese startups, American financial institutions are maintaining their positions in China's publicly traded tech firms as the law permits, and American investment managers continue to recommend investing in China.[42] Any restrictions strong enough to significantly disrupt U.S.-China investment flows would deny American investors the significant benefits of exposure to the Chinese market, with unpredictable and possibly severe economic harm ensuing.

Third, expanded restrictions might not meaningfully limit the targeted firms' and sectors' access to capital. There is plenty of money in the world, and much of it is beyond America's reach; investors around the world, and in China itself, are eager to tap the Chinese tech market. Already, there is evidence that firms in other East Asian countries and in Europe and are not necessarily receptive to American calls to "decouple" from China.[43] At a minimum, similar dynamics would probably blunt the effect of expanded U.S. investment restrictions.

To be clear, there are good reasons for American policymakers to consider restricting investments in China's technology sector. Tech firms listed on the mainland exchanges are implicated in grave human rights abuses, and intentionally or not, their technology enables the Chinese Communist Party and its strategy for continued authoritarian rule.[44] It is reasonable to believe that American capital should not be used for these ends. We should restrict U.S. investment, consistently and transparently, in companies that violate human rights, but we can't assume these policies will necessarily slow China's technological development.

[42] See, e.g., Michael Hood et al., ***Understanding the opportunity in Chinese equities*** (J.P. Morgan Asset Management, June 18, 2020), https://am.jpmorgan.com/ca/en/asset-management/institutional/insights/portfolio-insights/equity/understanding-the-opportunity-in-chinese-equities/ (China "offers a range of opportunities, along with certain risks. Our view of these opportunities is built on the belief that China will continue to deliver superior nominal economic growth relative to other markets over our 10- to 15-year forecast period ....To be sure, it may seem an inopportune time to even think about, let alone increase, your allocation to China's equity markets, given the steady drip of negative U.S. news dampening sentiment, the Holding Foreign Companies Accountable Act, the Uyghur Human Rights Policy Act, the revocation of Hong Kong's special status and the re-escalation of U.S.-China trade tensions, to name but a few Yet the fact remains that China is in the early stages of a financial evolution that will likely offer patient investors a significant opportunity over the next 10 to 15 years. And it is important to remember that periods of uncertainty, like today, can offer opportunities for those willing to look through the news and focus on earnings per share (EPS) growth, which ultimately drives investment returns.").

[43] See, e.g., PRC Ministry of Commerce, "Paid-in investment up 6.2% in 2020, hitting record high," January 22, 2021, http://english.mofcom.gov.cn/article/newsrelease/significantnews/202101/20210103033600.shtml; Mitsuru Obe, "Decoupling denied: Japan Inc. lays its bets on China," ***Nikkei Asia***, February 10, 2021, https://asia.nikkei.com/Spotlight/The-Big-Story/Decoupling-denied-Japan-Inc.-lays-its-bets-on-China.

[44] See, e.g., Will Knight, "MIT Cuts Ties With a Chinese AI Firm Amid Human Rights Concerns," ***Wired***, April 21, 2020, https://www.wired.com/story/mit-cuts-ties-chinese-ai-firm-human-rights/; Ben Dooley, "Chinese Firms Cash In On Xinjiang's Growing Police State," ***Agence France-Presse*** (June 27, 2018), https://www.afp.com/en/chinese-firms-cash-xinjiangs-growing-police-state.

Any U.S. restrictions on investment in China should be multilateral, better informed, and part of a broader strategy to maintain the technological advantage of the United States and its democratic allies

If investment restrictions are imposed in some form, U.S. policymakers do have some ways to make them more likely to have an impact. But in parallel, and probably more importantly, policymakers should exploit America's larger and more durable advantages over China in other domains.

Any investment restrictions should be multilateral

As noted above, U.S. investors are part of a global marketplace. If new laws force Americans to withdraw from profitable investments on the mainland, investors elsewhere will be happy to take their place. For this reason, unilateral U.S. investment restrictions are much less likely to alter China's technological trajectory.

Even multilateral restrictions may not have the desired effect, though. For example, public data suggest the mainland-listed tech companies listed in Figure 2 have few foreign investors at all, so foreign-imposed restrictions (whether unilateral or multilateral) may not directly affect them. Multilateral restrictions may also need to be narrowed in order to achieve consensus with foreign partners, but a narrower set of more effective restrictions would seem more valuable than a broader set of relatively toothless ones.

Properly targeted investment restrictions may be possible, but require better information

The FY2021 National Defense Authorization Act (PL 116-283) broadened the range of firms potentially subject to Section 1237 investment restrictions, including by expanding the definition of Chinese "military companies" to include "contributors" to China's military-civil fusion strategy.[45] Within this broad remit, if U.S. policymakers could target the channels and companies of greatest concern, investment restrictions could conceivably help contain the Chinese government's more troubling technological ambitions and avoid collateral damage. But this sort of careful targeting requires a richer understanding of China's technological ecosystem than we currently have.

Our knowledge is especially limited with respect to private-market investments, such as venture capital, which are not subject to securities disclosure laws. From a technology transfer perspective, transactions involving Chinese ***investors*** and U.S. ***targets*** are usually assumed to be riskier. That may be true in general, but Chinese startups - and, indirectly, the domestic industries in which they participate - also benefit from U.S. investment, and not just in the form of capital. In particular, private-market investors may also provide technical and

[45] See § 1260H(d) of the FY2021 National Defense Authorization Act, available at https://www.congress.gov/bill/116th-congress/house-bill/6395/text.

financial expertise, connections to potential customers and collaborators, market intelligence, and so on.[46]

To reliably identify when these transfers pose unacceptable risks and should be restricted, policymakers need to know, at a minimum:

- Which U.S.-to-China transactions are taking place or being considered
- Whether the U.S. investors have unique expertise or other resources
- Whether these resources are likely to be shared with the Chinese targets as a result of the transaction
- Whether the targets have other ways to access the same resources
- Whether the targets' activities are directly relevant to national security or to technological areas of particular interest to the Chinese government
- The nature, extent, and consistency of the targets' relationship with the Chinese authorities
- What benefit the U.S. investors stand to gain from the transactions

To my and my colleagues' knowledge, there is no office or agency, inside or outside government, that is currently able to provide this comprehensive view, whether in specific sectors or more broadly. Without it, restrictions on China-bound investments could inadvertently block innocuous deals and allow dangerous ones through. The federal government should invest in the analytic capacity that is needed to gain this comprehensive view - including, critically, stronger open-source intelligence capabilities related to China's science and technology ecosystem.[47] Doing so would both improve potential restrictions on U.S. investment in China and bolster other efforts to meet China's technological challenge in the decades to come.

Focus on American advantages in other domains

Capital, particularly American capital, is not currently a limiting factor in China's technology industry. I expect restrictions on US-China capital flows will be useful primarily to the extent they indirectly capture other, more critical resources flowing alongside the money, such as talent and expertise. Focusing more directly on these critical resources could yield better results.

For instance, America's ability to attract the world's top scientists, engineers, and entrepreneurs is a unique asset - one that fueled our economic, scientific, and military

[46] See, e.g., Samir Kaji et al., ***Inside the Minds of Corporate Venture Capitalists*** (CBInsights, December 10, 2015), https://www.cbinsights.com/research/inside-corporate-vc-minds/.

[47] See William Hannas and Huey-Meei Chang, ***China's STI Operations: Monitoring Foreign Science and Technology Through Open Sources*** (Center for Security and Emerging Technology, January 2021), https://cset.georgetown.edu/research/chinas-sti-operations/.

supremacy throughout the twentieth century. Today, Xi Jinping has described talent as "the first resource" in his country's quest for technological independence, and China is aggressively working to attract talented foreigners and Chinese expatriates, with mixed results.[48] In my judgment, consolidating the U.S. talent recruitment advantage over China - by investing in research and development, strengthening our higher education system, and fixing outdated and restrictive immigration laws - would do more for America's national security than restricting outbound investment.

Talent is the most obvious place to start, but the United States has other assets that are worth protecting. These include robust alliances with technologically sophisticated peer nations; dominant positions in certain "chokepoint" technologies fundamental to a wide range of capabilities, especially when allies' capabilities are taken into account; a diminished but enduring "soft power" advantage; and a market-driven economic system in which innovators and entrepreneurs can thrive.[49] If America wants to remain a contender in the global competition for technological leadership, it must protect and build on these strengths.

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[48] Remco Zwetsloot and Dahlia Peterson, "The US-China Tech Wars: China's Immigration Disadvantage," ***The Diplomat***, December 31, 2019, https://thediplomat.com/2019/12/the-us-china-tech-wars-chinas-immigration-disadvantage/.

[49] See generally Andrew Imbrie et al., ***Agile Alliances: How the United States and Its Allies Can Deliver a Democratic Way of AI*** (Center for Security and Emerging Technology, February 2020), https://cset.georgetown.edu/research/agile-alliances/; Saif M. Khan, ***The Semiconductor Supply Chain: Assessing National Competitiveness*** (Center for Security and Emerging Technology, January 2021), https://cset.georgetown.edu/research/the-semiconductor-supply-chain/.

Figure 1: Corporate venture capital investments involving foreign investors and Chinese targets, 2016-2020

Investor country	Number of investments
United States	256
Singapore	112
Taiwan	79
Japan	66
Great Britain	62
South Korea	40
Germany	39
France	18
Portugal	18
Switzerland	15
Netherlands	10
Other/unknown	65
Total	**780**

Source: CSET analysis of Crunchbase data extracted March 2021. Corporate venture investors are defined as investors that either a) are publicly traded, b) have more than five thousand employees or c) are subsidiaries of such organizations. Hong Kong-based investors are counted as domestic. For further details, see Rebecca Kagan et al., ***Corporate Investors in Top U.S. AI Startups*** (Center for Security and Emerging Technology, February 2021), https://cset.georgetown.edu/research/corporate-investors-in-top-u-s-ai-startups/.

Figure 2: Largest foreign shareholders in high-profile, mainland-traded Chinese technology firms

Company	Application area	Exchange	Largest non-Chinese shareholder	Percentage of outstanding shares owned
iFlyTek	Speech recognition	Shenzhen	The Vanguard Group	0.22%
Qihoo 360	Cybersecurity	Shanghai	BlackRock Institutional Trust Company	0.15%
Hikvision	Surveillance	Shenzhen	Capital Group Global Investors	0.5%
Sugon	Supercomputing	Shanghai	Dimensional Fund Advisors, L.P.	0.15%
SMIC	Semiconductors	Shanghai, Hong Kong	The Vanguard Group	0.84%

Source: Refinitiv data as of March 9, 2021. Pursuant to Executive Order 13959, U.S. investors are not currently allowed to purchase shares in Hikvision, Sugon, and SMIC, but have until late 2021 to divest from existing positions.

OPENING STATEMENT OF ANNE STEVENSON-YANG, CO-FOUNDER AND RESEARCH DIRECTOR, J CAPITAL RESEARCH

COMMISSIONER FIEDLER: Ms. Stevenson-Yang.

MS. STEVENSON-YANG: Yes, thank you. I couldn't agree more with Dr. Arnold. Good morning and thank you for the invitation.

I think it's worth saying that China has not converged and will not converge with the U.S. political and economic model.

That was never going to happen but that fact in no way invalidates the long-term U.S. policy of engagement.

That policy has enabled significant U.S. gain in trade and investment as well as, of course, bringing enormous new freedoms and prosperity to Chinese people.

I think it's important to note that China's conduct at the Alaska meeting with our administration recently was not a sign of strength but of weakness. Cornered animals lash out.

Xi Jinping's rejection of democracy, of an orderly transition of power, of treaty obligations, all of those things are not playing well either at home or abroad.

The Chinese Government deploys all the resources at its disposal in the interest of unfair competition with the U.S., both economically and geopolitically.

That's just a fact that we have to deal with, but this engagement empirically does not promote U.S. interests; it harms them.

How does this operate in the financial markets? Financial markets have provided China with a get out of jail free card for refusing to reform domestic institutions.

I think China learned back when UNICOM was listed in 1998 in Hong Kong that public markets would be far less demanding and more lucrative than foreign direct investment. And this has led to a number of problems.

Many people draw a bright line between the way public and private companies operate and they expend a lot of effort in trying to figure out whether Huawei, for example, is secretly owned by the PLA.

My belief is that ownership is almost entirely irrelevant. One thing the Chinese Government has done very deftly since the reform and opening policy began has been to deploy the tools and mechanisms of capitalism within a socialist framework.

To over-generalize, you could say that Chinese corporate structures are Potemkin villages.

So, China is largely a State-owned economy and is becoming more so. The private sector is an arena in which China's political elites accrue wealth, while the State profits from a laboratory of technologies and business models that, if successful, can be absorbed into national ownership.

While many of China's firms start off as private and are initiated by ambitious entrepreneurs, they necessarily become un-private as they trade away control in return for the permissions and resources they need to scale up. The reality of this illicit ownership pattern creates a mutuality of interest between State and private players across a broad swath of China's economy.

Throughout the reform era, China has pursued a policy of not investigating or holding accountable mainland-domiciled entities for fraudulent behavior abroad, no matter how blatant or egregious.

In fact, by intent, the mainland provides a reliable safe haven for Chinese capital market fraudsters. To strengthen this legal shield in the recent decade, China has passed a series of regulations that prohibit anyone on the mainland from providing evidence in any legal proceeding outside the mainland without specific written permission from China's Supreme People's Procuratorate.

This restriction makes financial crimes committed in the U.S. by Chinese entities impossible to investigate and remedy. The upshot is that U.S. efforts to regulate Chinese companies based on ownership are doomed to fail.

Ownership has become a concept handy for private enrichment but not a limitation on the reach of the State. Some of the consequences are as follows.

One, Chinese companies that go public have strong incentives to fake results. There's no legal liability. The chance of earning millions is goods and the downside case is simply being delisted and not earning millions.

Even without setting out to commit fraud, many companies slip into small lies that get bigger. Most rational players will initially commit a little fraud and then gradually embrace complete and egregious fraud. Of course, some companies start out to be fraudulent.

Second, China has no incentive to allow U.S. regulators and auditors to access working papers of mainland enterprises to ensure their accuracy and compliance with U.S. requirements.

Third, the approval requirement for businesses and the need for business scopes to be affirmatively declared remain the silver bullet that enables the Chinese government to sign international market access agreements but not provide market access.

Fourth, intellectual property protections remain extremely weak. There's a basic mismatch between short-term bureaucratic incentives and the longer-term resource commitments required for technological success. There's a powerful incentive to steal IP and scale up quickly with copycat products.

Fifth, the freedom from incarceration of foreign nationals involved in a legal dispute, whether real or invented, is no longer guaranteed.

In protecting these market advantages for Chinese firms, the Chinese government has erected specific impediments to due diligence. Some of these are as follows.

One, the 2010 Law of the People's Republic on Guarding State Secrets attaches draconian penalties for transferring information the government considers sensitive overseas, including by sending an email to someone outside of China or via an overseas-hosted email server like a Google or an AOL server.

Two, particularly since 2015 when the economy took a dive, China's government has successfully banned data sets that formerly were public. These include financial statements from companies, detailed trade statistics from customs, detailed banking records.

Three, local governments massage or fail to disclose critical data on real estate, consumer spending, and foreign directive investment among other subjects.

Four, under pressure to meet economic targets, trade associations often distort the collection and reporting of economic data, and five, listed Chinese companies seeking to boost their share prices inflate results without consequence.

Ironically, this adds to pressure on U.S. public companies to report rosy results because they will be in line with their peers. So, there are a number of different remedies that can be taken.

Briefly, I think the practical remedy for fake data on a macroeconomic level is to grant American researchers unfettered access to conduct surveys, a right that's been constrained by the Law on Conducting Surveys, supervised by the state statistical administration.

Two, on a corporate level, U.S. investigators in a legal proceeding need to have the right to interview individuals and review financial records of all sorts, including tax records, audit papers, invoices, and communications.

And I have a number of other remedies but I'll stop there because I see my time is up.

PREPARED STATEMENT OF ANNE STEVENSON-YANG, CO-FOUNDER AND RESEARCH DIRECTOR, J CAPITAL RESEARCH

March 19, 2021

“Testimony before the U.S.-China Economic and Security Review Commission”

U.S.-China Financial Ties

Anne Stevenson-Yang

Research Director, J Capital Research Ltd.

The Irrelevance of Ownership

China’s is a largely state-owned economy and becoming more so. The private sector is the arena in which China's political elites accrue wealth, while the state profits from a laboratory of technologies and business models that, if successful, can be absorbed into national ownership. While many of China’s firms start off as private and are initiated by ambitious entrepreneurs, they necessarily become un-private as they trade away control in return for the permissions and resources needed to scale up.

In the domestic market, there is no way to circumvent this process; in the export market, as long as companies are net contributors of foreign exchange to the country, there is more flexibility. But it is also probably true that, by virtue of the stranglehold that government- and elite-controlled private equity funds now have on capital markets in China, most Chinese firms do not really start out as private any longer.

Only trusted, connected individuals can break through regulatory barriers to win the licenses that enable groups like Huawei and Alibaba to vault over regional and sector barriers and aggregate cash from depositors all over the country. The individuals who emerge to head the major “private” groups must have three characteristics:

- high-trust connections to elites
- the ability to sell investors on their businesses through China Dream investment stories (that is, a strong spiel)
- the business skills required to manage expansion and acquisition initiatives.

What they do not necessarily have to possess is the capability of building a coherent and commercially sensible business that has high probability of surviving as a going concern.

The reality of this illicit ownership pattern creates a mutuality of interest between state and private players across a broad swath of China's economy. Throughout the reform era, China has pursued a policy of not investigating or holding accountable Mainland-domiciled entities for fraudulent behavior abroad, no matter how blatant or egregious. In fact, by intent, the Mainland provides a reliable safe haven for Chinese capital-market fraudsters. To strengthen this legal shield, in the recent decade, China has passed a series of regulations that prohibit anyone on the Mainland from providing evidence in any legal proceeding outside the Mainland without specific written permission of China's Supreme Procuratorate. This restriction makes financial crimes committed in the U.S. by Chinese entities impossible to investigate and remedy.

In the capital markets, as Chinese companies compete for favor with political authorities, they can expect to gain access to capital without the basic prerequisites related to performance and history, to be relieved of transparency requirements as to ultimate beneficial ownership, and to be given leeway to manipulate data related to performance. The foregone requirements, of course, are all basic, established pillars of orderly markets in the U.S. There is manipulation and abuse, to be sure, but the U.S. regulatory system strives to support principles of access to financing based on accurately assessed performance independent of elite ownership. In China, these principles are systematically compromised.

Ultimately, whether public or private, Chinese companies are always vulnerable to asset seizures and their executives to losing wealth (any number of billionaires over the last decade), liberty (Jack Ma, for example), and even life (for example, Xu Ming, the founder of Dalian Shide Group).

The upshot is that U.S. efforts to regulate Chinese companies based on ownership are doomed to fail. Ownership has become a concept handy for private enrichment but not as a limitation on the reach of the state.

Government control

Since the corporate reforms of the 1990s, shareholding and its close cousin, beneficial ownership, have created a sturdy conveyor belt for wealth to government elites. But one of the most important innovations of the reform era has been the extension of government control well beyond ownership. Ownership now may define the portion of company proceeds due to particular institutions or individuals, but it does not determine control.

Within state-owned companies, regulations are not needed, because administrative controls enable government officials to appoint or remove executives and control company assets. Outside direct state ownership, government control is exerted by several other means. They include:

- **Regulatory approvals**. Governments control the right to engage in various businesses, the right to exchange Renminbi for hard currency, the level of permitted production, the right to borrow money, and whether staff may be laid off at scale. These controls mean that government support is the key to profitable operations at scale, which in turn means that all businesses that reach a certain scale try to align their activities with the interests of particular regulators. The quid pro quo is that when regulators request that a business carry out a given agenda, the business complies.

- **Asset price controls**: Typically, local governments control the price of land and utilities and provide the lowest prices to the most compliant businesses. In a few areas of the economy, the government also regulates the prices of finished goods.
- **Extra-legal detention**: There are many examples of “control at a given location” of family members of an individual the Chinese government wants to influence.

Chinese corporations and governments share powerful incentives to bring in capital investment: it is the principal tool with which they are able to meet government-set growth targets. To attract capital, both companies and Chinese government agencies at every level hide or alter economic data. Simply put, data are for marketing purposes, not for analytical pursuits. As China's economy worsens, the deception becomes worse. Covid-19 has created a panoply of ostensibly justified measures that enhance data obscurity.

Clash of Civilizations

The mutuality of interest between the Chinese state and Chinese companies leads to several asymmetries in the U.S.-China financial relationship. Simply put, the U.S. legal system is a poor tool against the Chinese government's concerted efforts to shield its companies from accountability. Some of the consequences are as follows:

- Chinese companies that go public have strong incentives to fake results. There is no legal liability: the chance of earning millions is good, and the worst case is simply not earning millions. Even without setting out to commit fraud, many companies slip into small lies that get bigger. The Chinese market is highly volatile, due to abrupt regulatory changes and the ebb and flow of investment capital, while public markets tend to penalize companies for lack of predictability. Most rational players will initially commit a little bit of fraud to smooth their numbers and gradually embrace complete and egregious fraud. Of course, some companies are designed from the outset to defraud investors.
- China has no incentive to allow U.S. regulators and auditors access to working papers of Mainland enterprises to assure their accuracy and compliance with U.S. requirements.
- The approval requirement for businesses and the need for business scopes to be affirmatively declared remain the silver bullet that enables the Chinese government to sign international market access agreements and yet curtail market access.
- Intellectual property protections remain extremely weak. There are several reasons for this, but the most basic is the mismatch between short-term bureaucratic incentives and the longer-term resource commitments required for technological success. Bureaucrats want to see results within at most two years

of providing funding to a start-up. Because they know this is unlikely, they rig the game by shifting existing payments to the new company or requiring the company to replicate an existing, market-tested technology, then guaranteeing a market for it. There is a powerful incentive to steal IP and scale up quickly with copycat products. This has the cumulative effect of commoditizing valuable technologies and driving down their price, so that all members of the ecosystem lose money. It is not a formula for creating competitive technologies. The best defense is to protect intellectual property, but this cannot be done only through the court system.
- The freedom from incarceration of foreign nationals involved in a legal dispute, real or invested, is no longer guaranteed.

Specific impediments to due diligence include the following:

- China's 2010 "Law of the People's Republic on Guarding State Secrets" attaches draconian penalties for transferring information the government considers sensitive overseas, including by sending an email to someone outside of China or via an email server that is based in another territory. This has made it challenging for U.S. authorities to obtain any financial or ownership information a Chinese company may consider damaging.
- Particularly since 2015, when the economy took a dive, China's government has successively banned data sets that formerly were public. These include financial statements from companies, detailed trade statistics from Customs, and detailed banking records.
- Local governments massage or fail to disclose critical data on real estate, consumer spending, and foreign direct investment, among other subjects.
- Under pressure to meet economic targets, trade associations distort the collection and reporting of economic data.
- Listed Chinese companies seeking to boost their share prices inflate results without consequence. This adds to pressure on U.S. public companies to report rosy results in line with their peers.

The Political Goals

Since its emergence from the socialist era, China's national goal, to the extent there is one, has been the accumulation of capital and the personal enrichment of leaders. There has been scant attention to international alliances, the success of Chinese firms in international markets, soft power, cultural reach, or, inside China, investment in the human capital and institutional capacity required to reach a higher level of development.

For four decades, the people of China have been more or less content to continue facilitating the Chinese Communist Party's monopoly on power, because the Party has guaranteed them economic growth, upward mobility, and national pride. Xi Jinping has adopted a more aggressive international stance, largely because the Party's ability to provide these benefits is rapidly diminishing. Xi's increased need to demonstrate nationalist strength could pose dangers to U.S. interests and regional security.

But more dangerous yet is the developmental ledge at which China stands now. Having grown very quickly since the 1980s, China has not had time, or perhaps the political will, to invest in human capital in rural areas, which still make up two-thirds of the nation in population terms. China's per-capita income ranked 75th in the world in 2016, according to the CIA, behind Algeria and Thailand. China's level of high school attainment is lower than that of South Africa or Mexico. Standards of health are extremely low in rural areas. All these facts are likely to hamper China's ability to move up the income scale and continue to satisfy the expectation of its people for upward mobility.

The last decade has seen massive investment in physical infrastructure and real estate, sharply widening the wealth gap and creating a vast landscape of dead assets. The nation has also only recently curtailed the One Child Policy. Two unintended consequences—rapid aging and a dramatic gender imbalance—make growth harder to generate and see negative social consequences more likely to arise.

These problems, which are almost entirely neglected in public discourse, could engender grave social strife, including thwarted ambition among people no longer able to find formal employment, and anomie among those forced by real estate developments to leave their villages, raising rates of crime.

Faced with the very real possibility of calamity, the United States needs to double down on financial, legal, health, military, and governance exchanges that encourage China to build its less visible, soft infrastructure. Social collapse in China would be much worse for the United States than a strong China. The narrow economic consequences would include a collapse in the stock markets and of U.S. exports. It would mean that decades of capital investment by U.S. companies like Coca-Cola and General Motors would be unremunerative, as these companies face collapsing demand. More broadly, domestic turbulence and decay convey problems of crime, refugees, drugs, and more to other nations.

What Can Be Done

Broad frameworks for cooperation are important. At the ground level, specific measures need to be taken to protect U.S. businesses and investors from abuses endemic to the Chinese system. Many of these measures entail cooperation rather than avoidance and sanction.

The practical remedy for faked data, for example, on a corporate, industrial, and macro-economic level, is to grant American researchers unfettered access to conduct surveys, interview individuals, and review financial records of all sorts in a legal proceeding, including tax records, audit papers, invoices, and communications. A key impediment to such data collection is China's law forbidding independent surveys. Survey teams need to be able to access respondents within a framework of privacy law but not one of data supervision.

- In the pursuit of some level of clarity and accountability, the Kennedy bill requiring delisting of companies whose auditors are not inspected by the Public Company Accounting Oversight Board is a good start but needs to have more teeth in implementation, starting with much faster effect, one year instead of three.
- The U.S. should also press China to rescind laws, regulations, and procedures that prevent evidence and testimony from being given in serious criminal cases.
- Technology advances that support the imminent proliferation of digital currencies, both fiat and crypto, and blockchain-enabled asset transfers, need to be carefully regulated by the U.S. The same is true of social media and platform-enabled securities promotion and fraud. Fraud by Chinese brokerages appears to be rampant. This distorts U.S. public markets and supports the use of such financial transfers in cross-border criminal financial activity.
- The institutions, Chinese and foreign, that support portfolio money flows are corruptible and capable of market manipulation to defraud legitimate investors. Regulations that institutionally separate brokerage from banking and bar smaller service institutions such as accountancies and PR firms from owning shares in companies they service could be effective.
- Chinese and American venture capital and private equity funds have a powerful incentive to fraudulently inflate the value of their portfolio companies. They should incur liability when there is a fraud case that covers their behavior in the period during which they were beneficially invested.
- Technology export restrictions have been surprisingly effective. New company-by-company restrictions work for a little while but need to have implementing rules similar to the TAM sanctions on selling to the military, whereby companies were made responsible for identifying the end user. The US government should recognize that we face unprecedented regulatory challenges in maintaining a stable financial system and fair capital markets. The challenges are unprecedented because of technology developments, expanding wealth, extensive financialization in the economies of several emerging regions, and, finally, very different concepts of business ethics and levels of accountability that now intrude upon US financial markets from areas once very remote, like China.

Focus on Enforcement

The U.S. and Chinese systems are fundamentally different. Changes to Chinese regulations will make little difference to market access or commercial practice as long as the Chinese government owns and manages the economy. What will make a difference is vigorous U.S. enforcement of existing rules. Possible measures include:

- Delisting Chinese companies that will not allow access to audit papers.

- Treating Huawei, ZTE, and other Chinese network gear as spyware. Just as you would not let a government click on a marketing link sent by email from a Chinese server, do not install gear from these companies in proximity to government installations.
- Further strengthening the oversight of the Committee on Foreign Investment in the United States. The tightening of the last few years has been very effective.
- Establishing clearer reporting standards for academics who cooperate with or receive funding from Chinese institutions.
- Dropping the "end user" assessment as a principal means of restricting exports. Data and access issues notwithstanding, the reality is that State actors can extract what they want from any commercial enterprise in China whenever they want, overtly or covertly. The U.S. needs people to continually comb through tech components and the IP stack to figure out what stuff is potentially dual-use vs commercial-only, and to make the call on our side.

PANEL I QUESTION AND ANSWER

COMMISSIONER FIEDLER: Yes, thank you very much. We will now begin Commissioner questioning in alphabetical order, last name of Commissioners.

And I will include the Chairs and Co-Chairs in the normal order.

So, Commissioner Bartholomew is first. Is she available?

VICE CHAIRMAN CLEVELAND: She doesn't appear to be here today.

COMMISSIONER FIEDLER: Okay, Commissioner Borochoff?

COMMISSIONER BOROCHOFF: Thank you very much.

First, let me say thank you for the testimony that you all just gave. It was very enlightening and I'm very thankful that you all have taken the time and the effort that you did to send in your testimony and appear here today.

My first question is for Mr. Arnold. I was impressed with something that you said and wanted to ask you to expound a little on two things.

It seemed to me what you were saying was it's well and good to punish companies that do the wrong thing and countries that do the wrong thing.

But in fact, restricting capital, and I think all of you may have said this to some extent, restricting capital investment in China might not work simply because they'll go get the money elsewhere.

And in your testimony, Mr. Arnold, you talked a little bit about sea turtles and human capital and you also talked a bit about -- you all talked about -- the fact that we can't analyze what's happening over in China that easily.

Would you mind expounding to me a little bit about -- what I think you're saying is we need to work in our own shop and improve at home what we need to do to retain talent.

And we need to be a little bit better about how we analyze what's happening over there rather than try to force them to tell us. Would you expound on that a little bit, please?

MR. ARNOLD: Certainly, I appreciate that. I guess I'll go in reverse order. First, our understanding of what's happening in China and China's technological enterprise and then maybe a little on human capital.

So, our understanding of China's S&T enterprise, science and technology enterprise, is fairly limited. I think it's especially limited when it comes to technologies that are most sensitive from a defense or national security perspective.

That said, there is a great, great deal of information to be gleaned from open sources. And by that I mean whether it's official documents recruiting talent or outlining investment criteria for various projects that are posted on the internet or other forums.

One thing that's often not appreciated is that part of China's technological strategy has been to develop a massive technology transfer apparatus for monitoring and acquiring and adapting technology from the United States and elsewhere through a variety of means, many of which are perfectly aboveboard, some of which less so.

We have no comparable apparatus for understanding the developments in China, which in many cases are very quick these days. And certainly, some of their sectors are at the cutting edge.

I think greater investment in open-source intelligence would both enable us to just have a better handle on what's going on, which is useful for a variety of policy measures.

But in this context specifically, help us to target what are probably a relatively small number of companies with especially tight or sensitive ongoing links to Chinese military-industrial complex.

On talent, I think this is probably one of the America's most durable and most critical advantages, including over China in the global technological competition.

We've seen this in results out of CSET, for example, suggesting that a very large proportion of U.S. science and technology talent is Chinese, and when given the opportunity to stay here they do, and innovate and contribute to the economy.

And China also recognizes the brain drain from China to the U.S. as a critical deficiency in its technological strategy.

So, I would agree with you, Commissioner Borochoff, we really do need to double-down on this particular capability, whether that's through shoring up research and development in the U.S. or critically through improving our immigration system.

COMMISSIONER BOROCHOFF: With the remainder of my time, would anyone else like to address that? Okay, thank you.

I think we lost Commissioner Fiedler.

Is Commissioner Cleveland back? Okay, I think given that, we'll ask Commissioner Goodwin if he's ready, would you like to ask a question?

COMMISSIONER GOODWIN: Sure, thank you very much, Mr. Borochoff.

COMMISSIONER BOROCHOFF: No, I missed --

COMMISSIONER GOODWIN: -- and the rest of the panel for your --

COMMISSIONER BOROCHOFF: No, forgive me. I made a mistake. Commissioner Cleveland is right here. Please, go right ahead.

VICE CHAIRMAN CLEVELAND: I defer to you if you would like to --

COMMISSIONER BOROCHOFF: No, no, please.

VICE CHAIRMAN CLEVELAND: So, I think I'm getting a couple of take-aways here if I could consolidate what I heard, and please correct me, that there is an increase in investment by the state in the private sector.

I think, Dr. Rithmire, you said that that increase in investment doesn't actually ensure control or alignment with CCP requirements or objectives, and I think, Ms. Yang, you said that ownership is somewhat irrelevant because they have ultimate control through various mechanisms and tools.

So, I'm interested in do they or don't they actually have control, but I'm most interested in your characterization of the competition between central authorities and provincial authorities.

And I think, Mr. Arnold, you characterized it as everybody wants a biotech industry in their backyard. Everybody is trying to use these government funds to attract talent and build out emerging technology capabilities.

Those were the three key points that I heard, but I'm interested in does it lead to state control? Does investment yield any real benefit or make any real change?

And then this potential tension between provincial and central interests, I think one of you went of you went so far to -- I think, Professor Groswald, you mentioned that there were factions challenging central control.

So, if you could address how firm or meaningful is control from the central authorities to regional or local authorities and whether there are factions competing that in any way challenge Xi and the CCP? Ms. Rithmire, do you want to go first?

DR. RITHMIRE: Sure, I'm happy to start. So, first, I completely agree with Ms. Stevenson-Yang that the distinction between the private sector and the public sector is no longer relevant, and that U.S. policy or, you know, for that matter, academics, looking at how firms behave, should not see the main division as one between ownership. It's less of an ownership and more about influence.

The distinction I'm trying to make is that we tend to read, whenever a firm has a relationship with the CCP, whether formal or informal, we then assume sometimes that what that firm is doing is the bidding of Beijing, and my concern is that we don't over-interpret some of those signs and then misread what the intentions or the strategic efforts of the CCP really are.

So, my answer, Commissioner Cleveland, to the question of is there influence or is there not influence is that there's both.

So, my reading of how the CCP influences firms and affects firms is that if they want influence or control, they will get it, whether they get it through nationalizing the firm, through punishing the firm, through informal means of influencing firm decisions.

If they want that control, they can get it, but it's not always necessarily there just because there are potential pathways for that control.

And then in terms of the outcomes, does it mean that, you know, China will, you know, quote, unquote, succeed, say, in industrial upgrading, or in innovation, or will they fail? They'll do both at the same time.

So, there's a massive amount of money through state investment that's wasted, and so this distinction between central and provincial, I wouldn't call it competition as much as everyone's sort of in a frenzy to be part of the flowing of capital, right, to get money, everyone meaning both, you know, local actors who are well meaning according to the CCP's intentions and want to establish semiconductor fabs that are effective, and also --

COMMISSIONER WESSEL: Hey, Fiedler just called me. His computer went down. He wants you to tell Borochoff for him to keep running the things until he can get back online.

DR. RITHMIRE: Okay, so I'll just keep going. So, it's not so much competition, but that everyone wants a part of it, including people who want to basically hoover up as many renminbi as they can for their own personal accounts and local governments who want to have successful semiconductor fabs.

So, there will be tremendous waste, fraud, and subversion of Beijing's interests, but, of course, some firms will succeed and the CCP will definitely find those successful firms and incorporate those into its interests.

I guess my main message is that we shouldn't necessarily see everything that the CCP is doing as highly strategic. It's often a series of grand mistakes and experiments.

VICE CHAIRMAN CLEVELAND: Dr. Groswald?

DR. GROSWALD OZERY: Yes, so I couldn't agree more with Professor Rithmire, and I think, correct me if I'm wrong, Commissioner Cleveland, but I think that basically with your question, you're trying to ascertain how can we envision or expect that there will be interference in decision making and when will that happen?

And I think that there are two aspects to this question. One is there could be rogue officials, right? There could be officials that just decide not to go along with whatever things the Party-state is trying to advance.

And I think that in that respect, the Party-state has the same challenge as we do. How do they identify protectionism? How do they identify corruption? How do they prevent it?

And their solution was increasing monitoring of the CCP and enhancing Party line education, but that, of course, creates the problem of how exactly does the Party confines its own power and still achieves innovation and give enough freedom for independent decision making?

And they actually have a term for this problem. They recognize it as a problem. They call it liang zhang pi, which is the double skin problem, and I think that as long as they don't know how to overcome this problem, we will remain with a same question.

And I don't think that I referred to factions. I'm not a political scientist, so I can't really point to factions within the party if they exist, but I did refer to, you know, powerful interest groups, whether it's certain local governments, or strong national champions, or specific individuals, that their interests sometimes do not align with those of the Party-state.

VICE CHAIRMAN CLEVELAND: Okay, perhaps, yeah, you said on page 43 the word powerful insiders, with localities setting up guidance funds that may, perhaps Dr. Rithmire's comments of feeding this frenzy.

Do you all think in this -- I mean, we've talked about the mechanics of capital. I'm interested in the fact that with $49 trillion in debt in the system and the potential for shifts in global export markets leading to less foreign exchange coming in, do you think that this is a viable economic system? Is capital infinite? Because none of you have addressed the debt issue.

MS. STEVENSON-YANG: Well, I guess I'll take that first since nobody else seems to want to. This is clearly a key, key risk for China and the governance of the Party.

I think that the place where you see the risk is in the value of the renminbi. The key risk to the expansion of debt in China is capital flight, and capital flight is constrained by the value of the renminbi.

So, right now, there are plenty of assets that can still be obtained overseas, but China has clamped down a lot on capital flight by private firms like Anbang, and Alibaba, and so forth, and this disturbs a lot of people.

I think that, you know, it's very difficult to determine ultimately what the debt limit is, but the way we're going to see it is when the renminbi goes to ten or higher, and that will happen, I think.

MR. ARNOLD: I guess, Commissioner Cleveland, I'd only add that capital is not infinite. You're right.

I do think that the CCP has signaled very consistently that investing specifically in emerging and strategic technologies is an existential issue for the Party and they will -- I would expect that they would wind down other forms of investment before they would reduce those flows of capital materially.

COMMISSIONER BOROCHOFF: Okay, it's time for us to move onto the next commissioner. Commissioner Fiedler is having some difficulty, so we'll go to Commissioner Goodwin.

COMMISSIONER GOODWIN: All right, thank you again, Commissioner Borochoff, and thanks again to the panel for their great testimony. I'd like to return the conversation to the subject of these investment restrictions, not only in the mainland, but in some of the other international exchanges as well.

Obviously, any sort of restriction like this that we want to put in place needs to be grounded in reason, you know, rationally tied to reasonable objectives, and reasonable in scope, and hopefully effective in meeting those objectives.

Obviously, Mr. Arnold, as you point out, perhaps irrespective of the efficacy, there are still good reasons to have some of these restrictions in place to limit availability of American capital in certain companies, but at a minimum, I would hope when we're measuring how effective they are, it would have to include the ability to withstand judicial scrutiny.

And just last week, the U.S. District Court for the District of Columbia actually entered a preliminary injunction against the government on behalf of Xiaomi, I believe a smartphone manufacturer, effectively blocking the executive order's restrictions from going into effect with regard to that company.

My sense is that many of you have expressed some concerns about the lack of groundwork or foundation that was laid for the restrictions contemplated in that executive order, 13959, and now federal courts are doing the same, at least based upon the more exacting standards of federal law.

So, my question is what's next? The news coverage of that injunction that was issued last week indicates that several other companies are contemplating comparable legal actions to enjoin enforcement of this executive order.

If that happens, if additional cases were to be filed and successfully block the restrictions, how should the administration respond?

MR. ARNOLD: I can maybe take a first swing at that. So, I also read that ruling and it was interesting for a number of reasons. I do think it would be -- and I've seen the reporting also that companies like SMIC in the semiconductor sector and maybe some others are thinking about their own lawsuits.

I think Xiaomi is a bit of a one-off in that it really is more of a consumer-facing company. I think that companies like SMIC in semiconductors or certainly the state-owned enterprises on that list will have a much harder time in court, you know, under any sort of APA challenge for example, showing that their connection to the Chinese military doesn't withstand sort of an arbitrary and capricious test.

That said, I think the Xiaomi ruling points to a vulnerability, both procedurally in terms of how the executive order was enacted, and those sorts of things, I think, can be remedied, but also in just sort of a basic lack of analytic capacity to really distinguish when there are ongoing tight concerning ties of, you know, material significance between a Chinese company and the Chinese military and when there are not, when they are patchy, when, I think as one of my co-panelists put it, there is the potential for that influence, but it's not really activated.

To be fair, the Chinese government is not making it easy for us. You know, there is a myriad of different ways that it can influence these companies. They shift.

There's little public information, but one reason I think we need to work on analytic capacity within the government to draw out these ties is because otherwise, I do worry we'll see more rulings like the one you saw from Judge Contreras.

COMMISSIONER GOODWIN: Anybody else?

DR. RITHMIRE: Yeah, if I might just add one thing, Commissioner, it's just that I actually think that's a productive process to have Chinese firms enter a legal process to prove that they have no connection between the Chinese state, right, and their business structure, because that's one opportunity that we do get to get clarity on that process and it incentivizes Chinese companies, right, to make that presentation of their corporate structure and of their decisions.

And so, you know, there was a world ten years ago, maybe more, which SMIC, right, was swearing up and down it had no relationship to the Chinese government and was therefore welcomed in U.S. supply chains.

And so in a way, having some sort of means of getting Chinese companies themselves to produce that due diligence, to show and incentivize them to do that, I think, is a beneficial outcome of U.S. policy.

COMMISSIONER BOROCHOFF: All right, thank you very much, and now Commissioner Kamphausen?

COMMISSIONER KAMPHAUSEN: Thank you, and thanks to our panelists. Mr.

Arnold, I guess my questions or discussion is more focused on your testimony.

I sensed, in your written testimony at least, a lack of acknowledgment of the role on the part of the Chinese entities to taking intellectual property or coercing tech transfer through means that, you know, somehow, are a process to gain market access or whatever.

In the opening part of your statement, you talk about surprisingly fast development on the part of Chinese entities and you cite military aviation, and the citation is about the J-20.

In American national security and intelligence community circles, the J-20 is kind of a great case for how Chinese espionage has taken aspects of the U.S. F-35 and incorporated it into the J-20, and so I hardly think that's a case of terrific advancement on the part of China in the field of military aviation.

You mentioned to Mr. Borochoff the conditions of IP protection and you also made mention in your oral testimony about trade secrets.

My question is really you talk about the conditions in your conclusion about when it might be okay or even preferable at a policy level to restrict investment, especially in firms that are implicated in human rights abuses, which I agree with and think is a worthy point.

There's really another question though, it seems to me, and we have to ask ourselves to what extent foreign capital might reinforce ill-gotten gains in technological advancement and should that be another condition that would add to your list of reasons why we might limit foreign investment in some Chinese firms?

MR. ARNOLD: Yeah, thank you, Commissioner. I appreciate that question and I certainly would agree that tech transfer, whether compelled alongside foreign direct investment or through other channels is a very serious concern.

Personally, I would think that, you know, companies that are habitual, you know, IP theft offenders, whether that's because, you know, they're integrated with the Chinese government which is helping them in that sense or just on their own, would be cause for concern and potentially for investment restrictions.

I think it's critical to think about what are the tools we would have that would materially affect those companies in exchange for that behavior?

I'm skeptical that, you know, we have a meaningful way to address tech transfer through, for example, restrictions in listed companies.

I think there is probably a set of transactions that are potentially very concerning from a tech transfer perspective like I mentioned in my oral testimony, sort of private market investments where we think there is some unique know-how involved in the transaction, there's a high likelihood that's going to flow alongside the financial capital. I think we should be working very hard to identify those transactions, and if appropriate, restrict them.

So, I guess I would agree certainly that tech transfer is a serious concern, one that's a legitimate subject of potential investment restrictions. I just want to make sure we're using our levers to accurately target that and influence that behavior.

COMMISSIONER KAMPHAUSEN: I think that's a fair point. We may not have the ability to reverse a transaction or to somehow affect what's already taken place, but there is another dimension, which is the statement it makes to other firms who might want to engage in that sort of behavior going forward, and so there's in a way an effort to change future cost benefit calculuses as a result of using that type of tool. Thanks very much. I'll yield my time.

COMMISSIONER BOROCHOFF: All righty, Commissioner Scissors?

COMMISSIONER SCISSORS: Thank you, and I want to thank the witnesses, the staff, and the co-chairs. I think this is a very important topic. I don't really think you can be serious about China policy unless you're serious about U.S. investment in China, and I'm glad to see it getting some recognition here.

Meg, my first question is for you. All of my questions are data questions and it may not be possible to answer them now, but that's fine. I'm happy to have you say I'll send you something later in the follow-ups.

Meg, I appreciate you recalling that private capital was supposed to enter areas of state control. That was a big issue when we were looking at the plenary documents in 2013. It was incredible, at least to me, and it has not turned out, I think, to be very important, but that's my question.

Can you now or more likely later point us in the direction or offer, even better offer up numbers about private capital entering the state sector?

And the reason I'm asking obviously is it's hard, as you mentioned, to quantify state capital going into the private sector, but we really are interested in the net figure here in terms of changing patterns of development, and so as hard as it is to quantify state into private, we also need to quantify private into state.

And again, you may not be able to answer this at all other than I'll get back to you, which is fine, but any series in one direction or the other or both that are comparable would be great.

And if you just have sources, that would also be great, but starting with is there is a way for us to, while we're thinking about the state going into the private sector, recall that private capital is supposed to be supporting SOEs?

DR. RITHMIRE: Thanks for that. I love data questions, but not this one because I don't have an answer. It's very difficult. I mean, I have a lot of anecdata which is that --

I mean, what's very interesting about the mixed ownership reform is that the document that gave the 2020 deadline did generate a lot of activity, especially for local governments and provincial governments that had to meet some requirements or show evidence, right, of mixed capital reforms, but it was much easier, right, to go the direction that I've been discussing, which is state capital into the private sector, and then show, look, ownership is mixed, right, than the opposite.

And so, I mean, I have anecdata about, you know, certain firms who have sat down with private capitalists and said, look, we're going to need you to take like this kind of stake in the company to mostly, you know, achieve those objectives, but we --

Actually, I'm sorry. I would even love to say I'll get back to you in the future, and I can try to look into it, but I do not know of a great systematic source of how exactly that works, so I can only apologize.

COMMISSIONER SCISSORS: Well, I feel like I'm going to be doing that throughout my time as a commissioner, asking impossible questions, but if you do have like a direction to point us in, that would be great, just to start. You know, when you don't have data, a little bit of data is helpful.

DR. RITHMIRE: Tammy said she had an answer, I think. Tammy might know.

COMMISSIONER SCISSORS: Okay.

DR. GROSWALD OZERY: Yeah, so it's not a complete answer, but it is, you know, an anecdotal data point which is specifically with respect to the public market.

So, in the public market, it's pretty easy to see. Every traditional SOE that went through corporatization and then public listing is exactly that type of firm that you want information about.

So, all of those firms, which is currently about a third of the market, corporatized SOEs that listed shares for trade, those are in a way mixed ownership corporation with private investors.

COMMISSIONER SCISSORS: Right.

DR. GROSWALD OZERY: So, that's about a third of the public market.

COMMISSIONER SCISSORS: We could possibly use them as a proxy if we detrend for stock market movements. No, that's a good suggestion. Thank you. I may come back to you if I have time, but I don't think I will.

Mr. Arnold, in your written testimony, you said FDI and venture capital from the U.S. to China is falling. As we know, holdings, total holdings and portfolio securities are definitely not falling, and they're not tracked by a sector that I'm aware of. They're less targeted obviously than venture capital, but they're larger.

Do you happen to be aware of sector numbers that are, you know, either portfolio holdings or including, only portfolio holdings or including portfolio holdings and routed through offshore sources or not, so some sort of breakdown of portfolio holdings of Chinese securities by sector? Do you happen to be aware of any breakdowns by sector in that area?

MR. ARNOLD: Off the top of my head, no. I know there's been some recent analysis about this out of the Peterson Institute that I can look for and try to get back to you, but --

COMMISSIONER SCISSORS: Okay, so same thing, I appreciate that, and I'm not looking -- I'm asking questions that I know are hard because if they were easy, we'd already know the answers. I'm not looking for a perfect result. If you have like, hey, you know, this is suggestive, that would be great, and I'll yield back my ten seconds.

COMMISSIONER BOROCHOFF: Thank you, Commissioner. Commissioner Talent?

COMMISSIONER TALENT: Thank you, Mr. Chairman. I want to join my colleagues in thanking you all. Your testimony was extremely powerful and very informative insofar as I was able to follow it.

You know, finance was not ever an area of expertise of mine, but I found myself reading your testimony and reaching just about the opposite conclusion from the one you reached and I want you to explain to me why I'm wrong.

So, Dr. Ozery, you explained, and I've never read it done better, the various avenues of state control of all companies that are of any size in China, the guidance funds, the state of shareholder subsidies, a bunch of other means of control,

and that what means is basically Chinese companies are controlled not necessarily by the managers or the owners, but by people strategically placed in the company who have political influence with the authorities that are well connected and are part of the Chinese elite.

Ms. Stevenson-Yang, you told us, and I thought this was extremely powerful, that every Chinese company that's successful either starts as a fraud or becomes a fraud, and that you can't trust any of the data because they all have an incentive to make themselves out to be better than they are, and that this is corrupting even American companies that are invested in China.

Mr. Arnold, I think it was you -- I haven't been able to find your testimony in my folder here. You also said, and if you didn't, a number of other witnesses have said the government has got to get better at understanding what's going on in China because even the United States government doesn't know what's happening with these companies, and who controls these companies, et cetera.

We're going to have other witnesses later saying that the index funds may well have been pressured, the indexes, in order to list, to get them to list Chinese companies, and yet you all conclude let's just continue to let American investors invest in China.

And if I was still in the Congress -- it would be one thing, the speculators and the sharpies, if they want to take a risk. I wouldn't want my constituents putting their pension fund money in what is essentially a gigantic racket.

(Simultaneous speaking.)

COMMISSIONER TALENT: That was my reaction, so tell me why I'm wrong.

MS. STEVENSON-YANG: Do you want me to take a swing at that one because I'm the one who is more engaged in finance? I don't think that's what I said at all.

I think that in the realm of technology transfer, what we're saying is that the methods for influencing the direction of capital toward Chinese technologies should be focused on the technologies rather than the firms because we really can't determine what the firms' ultimate connections to Party goals are.

In the realm of finance, I think the real issue is not so much technology transfer as fraud and the security of American investors, and I think that that is the realm of the SEC and the SEC should take a much more active role in requiring, for example, PCAOB access to Chinese records or else they will delist Chinese firms.

I know the Kennedy bill has already done that, but I think it should take effect much more quickly. A three-year effective period really doesn't do anything.

And there a number of other measures as well. I think that Chinese firms basically need to be delisted.

COMMISSIONER TALENT: Well, I completely agree with that, except I don't think Beijing is going to let us, you know, impose in China the kind of regulatory or other safeguards that we have here in the United States and in other parts of, you know, the democratic world, and even the non-democratic world is really participating in the world economy, you know, on a good faith basis.

I ask the question, and really it's a sincere question. I mean, I just -- and not so much from a national security standpoint because I hear what you're saying there, that, look, they're going to get the money some place anyway, but from the standpoint of investor protection.

I mean, I just -- yes, please, Dr. Ozery?

DR. GROSWALD OZERY: Yes, so I'm going to talk about money flowing there rather than money coming in because Ms. Stevenson-Young also already addressed money coming in.

I think -- and the Commissioner is rightly concerned about fraud issues--I think what I hear in your question are two concerns. One is the issue of fraud and the other is the issue of state presence which might infer that firms are not directed to economic maximization goals, and therefore your concern for constituents and so on.

I think that we have to remember that investors' interests do not necessarily align with government interests. We might be able to align them better. That's a point for discussion.

But in terms of their economic interests, I still think that we should leave to professional managers to decide where money should go, and which risks are worth their time and which risks are worth their money.

We still need to remember that in the Chinese market, there are significant processes that are meant to deal with fraud, and with corruption, and all of these issues. The Chinese government is risk averse as we know, and so we do see some improvements there and it's important to remember that.

And, you know, as one investment manager once told me, they treat Chinese possible government interference, it's the ESG with Chinese characteristics for them and they know how to treat that. They know how to calculate in the risks of investment, so that's my point in there.

COMMISSIONER BOROCHOFF: I see that Commissioner Fiedler is back, would you like to rejoin?

COMMISSIONER FIEDLER: Yeah. I mean, I'm sorry, I had to completely reboot, have no idea what happened.

COMMISSIONER WESSEL: I apologize. Jim had not completed his comments, he was on mute.

COMMISSIONER FIEDLER: Jim, you're still on mute.

COMMISSIONER WESSEL: And you're still on mute.

COMMISSIONER TALENT: I hit unmute; I think it's muting somehow.

(Simultaneous speaking.)

COMMISSIONER WESSEL: We hear you.

COMMISSIONER FIEDLER: Try it now.

COMMISSIONER TALENT: Can you hear me now? Consequently, firms in China become de facto controlled by largely unmonitored powerful insiders, leading to the relative apathy of government officials towards corporate misconduct.

My academic work elaborates on the corporate governance consequences of this reality, which includes widespread self-dealing and corruption.

DR. GROSWALD OZERY: Absolutely, yes.

COMMISSIONER TALENT: Well, I'm over my time --

DR. RITHMIRE: If I might come in --

DR. GROSWALD OZERY: Okay.

DR. RITHMIRE: -- I totally agree with Tammy. And in fact, one of my policy recommendations is that -- I mean, I teach a course on political risk, right, to MBA students. It's amazing, they're not stupid, right? And there's political risk in all kinds of places.

And national security risk is one thing, but my fear is that if the United States Government starts making policies to protect so-called investors -- Anne's suggestions, I think, are quite brilliant, about requiring or doing as much as we can to require certain disclosures, survey access, these kinds of things -- but if we start making rules to protect investors and financial allocators of capital from their own risk, then it seems like, it's a step beyond, I think, making a national security argument about China.

COMMISSIONER TALENT: I agree with you. Thank you --

DR. GROSWALD OZERY: Just, if I may --

(Simultaneous speaking.)

COMMISSIONER TALENT: Yeah, please.

DR. GROSWALD OZERY: Just if I may, because commissioner quoted from my testimony and I just want to make it for the record. Yes, indeed, there is widespread self-dealing, widespread corruption, we all know that.

But, in the maybe next page of that testimony also talked about all the means that the Party and the state are implementing to try and combat that.

And part of it is the monitoring within enterprises, which we can maybe judge based on a normative level and there is a lot of problems with that, but it doesn't mean that the Party, they just let everything loose and let's abuse shareholders as a policy.

COMMISSIONER TALENT: All right, thank you.

COMMISSIONER FIEDLER: Okay.

COMMISSIONER TALENT: Thank you, Mr. Chairman.

COMMISSIONER FIEDLER: Yes. Mr. Wessel?

COMMISSIONER WESSEL: Thank you all for being here. And I'd like to pull on the thread that Jim just exposed for a couple of minutes, because I agree with him.

And, Dr. Rithmire, I certainly understand how investors should be able to judge their own risk, although the theory of the '33 and '34 Acts is that there should be adequate information.

And we've heard, I think, from a number of you here today, as well as I think we all know whether it's PCAOB or other issues, the opacity of being able to actually know what's happening in China.

I heard today, in fact, comments that raise increasing concerns for me. In the past, we've had witnesses indicate there really is no private sector, because there's always some influence of the state, one way or another.

But today, I heard that the fact is that success begets more government involvement. You are under higher focus, more governmental influence to both harvest the benefits of your activities, as well as potentially rein in abuses, et cetera.

So, from the '33, '34 Acts, et cetera, I'm a normal investor, I'm not reading on a daily basis what individual Chinese firms may be in a mutual fund, you know. It doesn't seem that it's working, is it?

DR. RITHMIRE: No. To be clear, to be clear, there are -- I mean, this issue of -- I've also written about fraud and corporate governance problems.

And, I mean, I think Anne put it really well, corporate governance structures in China are a bit of a Potemkin village, in that they've adopted, both for state firms and for non-state firms, the veneer, right, of modern corporate governance and a modern regulated financial system, without actually giving teeth to those regulations or giving power to minority shareholders or regulators, among other things.

So, I'm not saying -- and I think this issue of whether Chinese firms should be allowed to list in American exchanges, what I think would be a great set of concerns, right? -- and you're policymakers, I'm not, I'm only an academic, right, how to craft policy is, that's not what I do.

But thinking about, what are the positive inducements, if they're possible, to get Chinese firms to agree to those rules and to push maybe even domestically within China for greater transparency, more of the regulations that our investors would need to be protected and Chinese minority shareholders would need to be protected?

And so, I think, I guess I'm wary of saying, for national security reasons or something, or to protect investors, we should ban all investment in China. The issue of Chinese firms listing in American exchanges, I think is totally different and I would support delisting in most circumstances.

COMMISSIONER WESSEL: Well, but, let me step back a minute, because from your comments, and also those who argued for China's accession to the WTO indicated that engagement would yield freedom, democracy, adherence to Western norms, et cetera. I don't think that, 20 years in, all the proponents' wishes or hopes have come about.

And I think we've seen, from both the Trump, as well as the Biden administration, the early comments and activities, for example, in Anchorage yesterday, that China's a strategic competitor. How far you want to go beyond that, I leave it to you.

But our offering capital to China, meaning investing in China, not their ability to list here, is helping them in certain ways. Yes, there may be other investors that come in, but U.S. investment is fluid, it's massive, and it's a good housekeeping seal of approval.

Should we reset and say, no new investment until we see certain reforms? It seems like we're rewarding them for being bad actors. We're rewarding them for what many view as genocide in Xinjiang and now we're doing a one-off policy, forcing us to prove in most instances bad performance, bad actions.

It seems like we have this backwards. Do you agree or disagree? Dr. Rithmire, I'll focus on you first and then welcome anyone else's comments.

DR. RITHMIRE: I'm wary of putting any specific policy in the grand arc of engagement, did it work or did it not work?

And I don't think -- I mean, I think what you, I guess, should ask is, is the U.S. government prepared to, quote/unquote, protect investors from every emerging market or market where there might be political risk?

And I think, to be totally honest, my fear is that in responding to -- and I agree with you, China is behaving badly, I agree with you --

COMMISSIONER WESSEL: If I could interrupt, I'm not trying to protect the investors as much as I'm trying to protect our country.

We're investing -- when it comes to the DoD listed companies, those are ones that have been identified as acting directly adverse to our national security interests. That should be a government or a countrywide interest, not on the individual investor aspect.

DR. RITHMIRE: Exactly. I think that's exactly the distinction that I would want to make. So, what is a national security interest versus what is a policy saying, no one can invest in China, period, because we're worried that China's markets have too much fraud and corruption and we have to protect investors from themselves.

I don't want to see the U.S. government become the Chinese government by over-protecting people in response to its actions.

COMMISSIONER WESSEL: But for the DoD and the Entity List companies, it would be appropriate to restrict, from a public policy perspective, investments in those companies? Understanding there has to be due diligence about the listing itself, no argument there.

But if those companies are identified in law, by the legal standard as being adverse to U.S. interest, it's appropriate to take action, is what I heard you say, is that correct?

DR. RITHMIRE: It's a bit beyond my purview, but it doesn't seem unreasonable to me, no.

COMMISSIONER WESSEL: All right. Thank you.

COMMISSIONER FIEDLER: Okay. I will go to Commissioner Wong before asking myself questions.

COMMISSIONER WONG: Thank you, Mr. Chairman. And thanks to all the witnesses for your cogent testimony and the questioning today, I've really enjoyed it.

Dr. Rithmire got into this just in the recent questioning with Chairman Wessel, but I just want to make sure I understand the distinction you are making.

When you say that the investor is currently or these savvy investors, these institutional investors, that they are sophisticated and going in with eyes wide open with regard to the opaque nature of Chinese companies, as well as the risk of political intervention, the political risk, as you mentioned, you are not saying, however, that they have an identity of interest with the national security interest of the government as a whole.

They may factor in reputational costs to them as institutional investors. They may factor in legal exposure with the existing national security restrictions that exist. But you're not saying that they are going in with eyes wide open on the national security and human rights implications of their investments?

DR. RITHMIRE: Absolutely correct, that's exactly the distinction that I'm trying to make, that, yes, that's exactly right.

COMMISSIONER WONG: Okay. Thank you. Question, Mr. Arnold, I read with interest the section of your testimony about targeted restrictions on individual deals.

Now, you had other suggestions that were kind of broad and more towards our overall competitiveness, and I think those are very good and cogent.

But on this targeted idea, your proposal seems to be focused on building U.S. government capacity to basically have market-wide information to find those individual deals that might pose acute national security or human rights problems.

My question for you is whether a better way to approach this, from a government perspective, is a reporting requirement, rather than market-wide surveillance by the U.S. government?

And by that, I mean if you have an investor, whether it's a private equity firm, whether it's venture capitalists, whether it's these companies that want to list Chinese firms on an ETF or an index fund, that before they do that, they make a determination on their own that this may have national security or human rights or governmental interests, that they then report the deal, provide proper information and then, consult with the government on how to narrow the deal or not do the deal if it does have those implications.

Essentially, what I'm proposing, in my mind, is kind of a reverse CFIUS process. And, again, it could be voluntary, but enforced with the threat of post hoc action by the U.S. government if we do find this deal to be, at a later point, unsavory or detrimental.

What do you think about that? I mean, is that unrealistic? Is that workable in this context?

MR. ARNOLD: So, I do, again, appreciate that. I do think some sort of reporting up from the private sector would potentially make sense as a mechanism here. I think there may be two caveats.

The first is that, so, you identified CFIUS as a system that works a similar way, I do think it's generally perceived and accurately perceived that, sort of, foreign investment into U.S. companies may, in general, pose more of a technology transfer risk than the other way around.

I think there probably are U.S. to China investment transactions that do pose similar risks, but I would guess it's less common, fewer and far between. So, you would want to calibrate sort of the burden of the reporting requirement to the risk.

The other thing I would say is that, honestly, even sophisticated actors considering investments in China may not be fully aware of the national security implications of the deal, just as, honestly, the U.S. government may not be in many cases.

So, I think you would want to make sure it's a process that could elicit a give and take with the government, as you note. And I think in order for the government to play a productive role in that process, much more analytic capability would be needed than I think we currently have.

COMMISSIONER WONG: Yeah, I definitely think more analytic capability, more investment in that expertise is warranted.

But if this reporting requirement existed, it would essentially shift the burden over to the private sector, to individual deals, to people who are closer to the deal, when they would have perhaps some give and take, not just between the U.S. government and the U.S. investor, but between the U.S. investor and the Chinese entity itself, and maybe inculcate standards of practice over time that this information is required.

And that they can then build into their contracts that if, later on, there do appear to be implications of national security import or whatever factors that we put into it, that there's an unwinding of risk for it.

Now, this will affect how people price these investments, the willingness of people to do these investments, the transaction costs, but perhaps there's something we can do on that front. And maybe some things are, this is already being crafted, I don't know. But I appreciate your insights into it.

COMMISSIONER FIEDLER: Yes, Tammy?

DR. GROSWALD OZERY: Just to be clear, I guess, a request for clarification from Commission Wong, I assume you were referring to asset managers and intermediary institutions being involved in FDI, right? Not their capital market involvement? Is that --

COMMISSIONER WONG: Yeah, in my mind --

DR. GROSWALD OZERY: -- a wrong understanding --

COMMISSIONER WONG: In my mind, just based on Mr. Arnold's testimony, and you can correct me, Mr. Arnold, I mean, we're talking about a broad swath of private market investors, where our information and our ability to surveil these types of transactions is fairly limited.

Now, we could include some of the institutional investors that do enter the market. Now, I'm just kind of, now, I haven't really done great research into this, but before they begin listing Chinese companies in ETFs that they create, we can include that, but we'd have to tailor this right.

But my concern, mainly, is in the private market, venture capital, private equity, mezzanine funding, if that's the right term, where we don't have great public information, and the ability to surveil it and have intelligence is limited on the government side.

DR. GROSWALD OZERY: Thanks.

COMMISSIONER FIEDLER: Okay. Let me -- I'm sorry that I had computer difficulty and missed a substantial part of the questioning. So, someone on the Commission, please stop me if I'm asking about covered ground.

Professor Rithmire, you make a point of talking about savvy investors and they don't need protection, I agree. The question, really, is, ultimately, whether we need protection from them and their investments. And that is the nexus of the national security considerations.

Do you think they're savvy enough to understand that when they invest, say, in Hikvision after it's on the Entity list, that while it's not illegal, it might be a problem?

DR. RITHMIRE: No.

COMMISSIONER FIEDLER: Or they just don't care?

DR. RITHMIRE: Well, I guess, I'm not comfortable speaking to their normative motivations, but, no.

So, my distinction is exactly the one that Commissioner Wong helpfully drew out, which is that American investors tend to make money in Chinese markets, but that does not mean that they don't hurt national security, perhaps, or that there's not a potential there to invest in the kinds of firms or help grow the kinds of firms that, for a variety of reasons, related to national security or our American values and normative concerns, we do not want to receive American capital.

COMMISSIONER FIEDLER: Thank you. Dr. Ozery, you talked in your written testimony about the role or the rights of state minority ownership in companies, and I presume publicly traded companies.

So, in other words, a state enterprise or a state entity owns a minority interest in a publicly traded company, but it has enhanced rights, that we don't have any sort of analogy to in the United States, all right?

And do we see this being activated? Do we have any examples? Or is it just an ad hoc power on the part of the government, which they actually have anyway, whenever they want to act, it seems to me.

DR. GROSWALD OZERY: So, basically, the legal framework, the SOE Assets Law gives the state, even as a minority shareholder, the option to propose candidates for the board of directors and the board of supervisors.

And so, this normally would be something that is not given to public shareholders or other shareholders in another company.

There is also, as I pointed there, a few added rights, including specifically fiduciary responsibility towards the state as an investor in any Chinese state-invested enterprise, as well as some provision that basically allows or actually requests the approval, the preapproval of transferring state interest in any state-invested enterprise.

And so, to the question of the Commissioner whether or not this is exercised, it is exercised, the intention is more to exercise it in state-controlled companies and less so in state-invested enterprise, but I did not do any empirical research to actually see how much is it exercised where the state is actually a minority shareholder.

The general intention, reflected through law and policy, is to minimize such exercise of this right in the state-invested enterprise, where it's not a controlling shareholder.

COMMISSIONER FIEDLER: All right. Thank you very much. Let me go to a question on disclosure by the SEC or rules. So, the SEC says, we don't have country-specific requirements.

We've talked today and we're going to talk more today about the very unique corporate aspects of the Chinese system. It strikes me as boilerplate risk disclosure that we find, with Chinese companies, is insufficient, number one, and doesn't really include material matters.

So, absent sort of required disclosure, there's the concept of materiality, right? And I don't see materiality being exercised in the China context, where there's plenty of flexibility for the SEC to do it, to force disclosure.

So, for instance, if a company is making ballistic missile parts and is listed, right, or your minority ownership question, we just say, boilerplate-wise, oh well, the Chinese government can intervene whenever it wants.

And that is deemed to be sufficient, as opposed to more specific and detailed disclosure, right, for investors. Or do you just think they're so smart that they don't need, these savvy investors don't need any more disclosure?

DR. GROSWALD OZERY: I'm assuming that's for me?

COMMISSIONER FIEDLER: For both of you.

DR. GROSWALD OZERY: Okay.

COMMISSIONER FIEDLER: For everybody.

DR. GROSWALD OZERY: So, I'll take a stab at that, I'll begin. So, first of all, I want to again distinguish between the interest of savvy investors, asset managers, and so forth when they invest in China's market.

And I'm going to respond specifically now with respect to investments in the U.S., because that's where we can actually control our disclosure requirements.

I agree with the Commissioner, in terms of more disclosure is better. I'm in the position that, in this day and age, I don't see why we need to give laxer treatment to foreign issuers.

Having said that, we do need to acknowledge that there is problem to understand what will be material information in this instance. I mean, would you consider just having state control as material information? Does it make investors more informed about the specific risks that are involved in state control?

You are right, I believe that we need more detailed information about the specific intricacies within each company, the client space, the exact network of affiliates. It goes to much more detail, in my opinion, than just saying the state can influence and maybe cannot.

That's basically -- I guess, the final point is that, state and Party connections can tell us a lot of things about both advantages and disadvantages, and I'm not sure that retail investors can really appreciate what do they mean, what does the information mean? Yeah.

COMMISSIONER FIEDLER: Okay. Meg?

DR. RITHMIRE: I would agree with that, and let me add that I'm not sure that there is any kind of information that could be disclosed, in terms of state influence or shareholder structure or ownership that would be useful in that national security sense.

In that sense, I mean, I want to go back to something that Ms. Stevenson-Yang said, that it's not really about ownership, even within the blurry categories, even when we're trying to obtain more information about ownership or control.

To me, the national security interest would be more grounded in what sector are they in and what kinds of technology are they producing or what kinds of services are they providing, rather than any kind of data that would be possible to gather information about the control or implements of the Chinese Communist Party, which I think is very difficult to collect any systematic data on that would be useful, as Tammy says, for retail investors.

COMMISSIONER FIEDLER: Anyone else?

MS. STEVENSON-YANG: Yeah, could I throw in just my two cents? I agree with you, Meg, just call me Anne, that's much, much briefer. I think that we should distinguish between U.S. fund managers' investment in China and listing of Chinese companies in the U.S.

The U.S. fund managers' investment in public companies in China is very, very small, by design by the Chinese government, because of the non-convertibility of their RMB.

The private investment by private equity companies like Sequoia into China is rather large and needs to be more robustly disclosed.

Chinese companies investment or listing on U.S. exchanges needs to be more carefully controlled. And I agree with the Commissioner that it's not about regulating particular markets, it's about applying standards across all markets and not giving a pass to the Chinese who, for example, agreed in 2012 to allow audit access and still have not allowed audit access. It simply needs to be cut off.

I think that, as far as disclosure is concerned, I agree with Commissioner Wong that specific disclosures need to be made and required. I think it needs to be a little more specific than just Chinese government influence or national security.

For example, I think that all U.S. companies, just as there's a mining disclosure requirement in SEC, I think that U.S. companies should be required to disclose any exposure in their value chain to slave labor in Xinjiang.

COMMISSIONER FIEDLER: Okay. Commissioner Bartholomew, have you had a chance to ask questions yet?

CHAIRMAN BARTHOLOMEW: I'm going to pass on questions for this round. Thank you.

COMMISSIONER FIEDLER: Okay. We are ready for a second round. Commissioner Borochoff, do you have a second question? Okay.

COMMISSIONER BOROCHOFF: I do. At your suggestion, Anne, I'll call you Anne. I wanted you to expound a little bit more on what you were just saying regarding Commissioner Wong's idea, which I think we all agree with from a U.S. security viewpoint.

Specifically, you were just talking a little bit about what the companies in America would have to disclose that were making private investments. Do you mind just giving a little more detail on that? If you were in charge, what would you say you wanted to know before we allowed them to make a purchase?

MS. STEVENSON-YANG: Yeah, interesting question. I mean, the first thing would be exposure to slave labor and to value chain in Xinjiang or in forced labor camps in Tibet and other oppression of minorities in China.

The second thing, of course, would be compliance with the anti-Foreign Corrupt Practices Act, which I believe they already make disclosures about.

And then, I'd kind of have to think about it, what is Sequoia specifically going to disclose that will be useful to us? I need to think about that a little.

COMMISSIONER BOROCHOFF: Well, maybe we'll send that question afterward for a later response. Thank you.

COMMISSIONER FIEDLER: Commissioner Cleveland?

VICE CHAIRMAN CLEVELAND: Thank you very much. Professor Groswald, I have a question for you. In your testimony, you talk about corporate governance, particularly with regard to SOEs, and enhanced CCP monitoring within firms includes the spread of fear governance, risk aversion, and potential managerial paralysis.

We heard this in the first hearing, that there is a freezing up in the system because of aggressive anti-corruption, in particular, efforts. Could you elaborate a little on what party engagement means in terms of the operations and functioning of corporations? Particularly when it comes to governance?

DR. GROSWALD OZERY: Yes. So, basically, what we've seen over the past few years, where the CCP has increased its role in corporate governance, it takes form in three main aspects.

One is more political ideological role, when there are like workshops and educational issues and Xi Jinping's thought line and recruitment of Party members and so on.

And then, the other two aspects that are more related to corporate governance are in terms of involvement in personnel, decisions about personnel, whether the appointment or the recommendation to appoint and so on, depending on the level of the enterprise, where the CCP Party committee is now more involved with.

There is also, by default, an alignment between the role of the Party committee secretary in the firm and the chair of the board of directors. And also, an encouragement of cross-representation between the different committees and the Party committee.

And specifically, in terms of decision-making, there is, the party is given the right, the legal right, to assess and basically supervise major corporate decisions, which, with respect to certain SOEs, it had been translated to the management receiving preapproval from the party for specific decisions.

But, again, this is with respect to SOEs. Would you like me to expand or --

VICE CHAIRMAN CLEVELAND: Sure.

DR. GROSWALD OZERY: Okay. So, the Commissioner referred to the issue of freezing up managerial innovation and so on. So, this is indeed something that is a big concern in China, and as I indicated before, they actually have a term for that.

And they have taken means to somehow compensate, we don't know yet if that will be actually effective, but they have, for example, increased the calculation of specific performance market-based criteria in their assessment of managerial positions.

And so, they are trying to somehow find this balance between freezing up, making managers more risk averse and so on, to actually finding this balance and letting them continue with their freedom, in a way.

VICE CHAIRMAN CLEVELAND: Thank you very much.

COMMISSIONER FIEDLER: Thank you. Carte, do you have a further question? Roy? Is Roy there?

COMMISSIONER KAMPHAUSEN: Nothing from me.

COMMISSIONER FIEDLER: Thanks. Then, I'll go to Derek.

COMMISSIONER SCISSORS: Thanks. I have a narrow question and a large one. The narrow question is to Tammy, and I'm asking this not because I disagree with any of the panelists on China having adequate technology funding, they do, but because I have an interest in the balance of payments.

You, in your written testimony, gave a figure of three to six percent foreign share of equity and debt markets. And you were on your way to your main point, I'm not criticizing, but it was uncited.

Do you either recall that cite or can you send it to us when you go back to the testimony and see where I'm talking about? Is that okay?

DR. GROSWALD OZERY: Absolutely.

COMMISSIONER SCISSORS: Okay.

DR. GROSWALD OZERY: Again, I can look at the cite right now and I'll tell you after your next question, if you want, or send it to you, whichever --

COMMISSIONER SCISSORS: Either way, because I'm trying to gather numbers, because it's not just Chinese technology funding that U.S.-inbound portfolio investment affects.

The big question is for everybody, but I'll try to narrow it so that nobody thinks they have to talk for 20 minutes. Alex raised this idea, and it's been raised it, of course, before of an outbound CFIUS.

I don't want you to flesh the whole thing out, I don't want you to endorse it, I want to say, let's pretend we're going to have an outbound CFIUS, just it's going to happen.

What's one thing you absolutely don't want it to do or one thing you absolutely want it to do? I want to see if you have one feature of that outbound CFIUS that you want to block or you want to have.

Don't all answer at once.

MR. ARNOLD: I can jump in. I think that I'm especially concerned with transfers of implicit knowhow alongside financial capital.

I think a sector that is especially critical, both in terms of knowhow and in terms of strategic importance, is semiconductors and semiconductor-related manufacturing equipment.

And so, I do think a measure like this would need to be scoped properly in order to avoid an undue disruption in the market, but I think semiconductors and certain aspects of the semiconductor value chain would be a good place to focus.

MS. STEVENSON-YANG: I agree --

COMMISSIONER SCISSORS: Thank you --

(Simultaneous speaking.)

MS. STEVENSON-YANG: -- because I'll be really brief. I would not want it to focus on specific firms and I would want it to focus on specific technologies. So, what are the technologies being targeted for investment?

COMMISSIONER SCISSORS: Right. So, more like CFIUS and not like the Entity List, thank you. Anyone else?

DR. RITHMIRE: I quite agree with Anne. And if you look back at the original congressional debates around FIRRMA in 2018, there was a lot of commentary from various representatives and senators about are we going to allow outbound investments that may take away American jobs?

I'm not in the business of defining whether it is or is not national security, but it's worth recognizing that that scope for an outbound CFIUS would be a transformative one for American business and capitalism.

COMMISSIONER SCISSORS: Thank you all. I yield back the balance of my time.

COMMISSIONER FIEDLER: Commissioner Talent, do you have anything? Mr. Wessel?

COMMISSIONER WESSEL: Thank you. So many questions come up, some of which I guess I'll email our panelists. And appreciate all the engagement today.

And let me just, on the last point about the question of jobs, et cetera, both Australia and Canada have net economic benefit screening mechanisms in their laws, which, from my reviewing cases, has not been a major deterrent to investment.

But from a national perspective, understanding that I think is something that Congress and our government would like to know. So, I think there are public policy reasons for that.

Let me go back to the issue, and I hate to say I don't remember who raised it, the question of materiality. It may have been you, Jeff.

As we look at these issues and overall impact of investments on the U.S., both in national security and in terms of economic security, which I think is important when one looks at the fact that we have the Thrift Savings Plan, we have the PBGC, we have a number of governmental funds or buttressing mechanisms that put U.S. taxpayer dollars at risk. So, there is a public interest there.

As a matter of materiality, do you believe it's appropriate to have the SEC require companies investing or doing business in China to report on technologies they may have transferred, Party committees that may have been set up, subsidies that may have been received, or other issues that may trigger issues within the context of U.S. law? Right now, those disclosures are not required.

Dr. Rithmire, I'll let you start, only because you appear to have been done more of the granular empirical research, but I'd like to hear from each.

DR. RITHMIRE: I don't know if I would accept that, I think that maybe my research is a little actually more in the aggregate for this.

I mean, I think I would support disclosure requirements, especially about, as Anne mentioned, Xinjiang, forced labor, and surveillance kind of equipment, dual use, which is a very difficult thing to determine, it's not straightforward.

But I would support, yes, I would support those sorts of disclosures. My sense is disclosures that, again, are related to ownership or influence from the Chinese Communist Party would be less useful and less relevant, actually, just because those pathways for influence exist whether they're disclosable or not.

COMMISSIONER WESSEL: I'm not going to argue -- I have views. Anne, do you have thoughts on this?

MS. STEVENSON-YANG: I would point out that disclosures in the Chinese market for the A-share companies are actually much more detailed and much more rigorous than those that are required in the U.S. markets, and they don't keep Chinese companies from committing fraud.

I think that the critical issue is enforcement. So, we have lots and lots of SEC rules that are observed in the breach, I could name a thousand of them offhand, but I think the critical issue -- I mean, let's be honest, the biggest Chinese company listed in the U.S. had, as its attorney, the former head of the SEC.

There clearly was not going to be any enforcement against that company, and that company's disclosures are vague in the extreme, as are many companies' disclosures. All we need is more inquiries by the SEC.

COMMISSIONER WESSEL: Yeah, and let me just be clear -- and thank you. I'm talking more about U.S. entities subject to SEC laws. So, General Electric, what is happening in their operations in China and how should U.S. investors, not what a Chinese entity -- I agree that there's --

MS. STEVENSON-YANG: Right, sorry, I went --

COMMISSIONER WESSEL: Yeah.

MS. STEVENSON-YANG: -- off on that a bit.

COMMISSIONER WESSEL: Yeah.

MS. STEVENSON-YANG: I think that the disclosure requirements are already pretty good. As I said, I think we need to add stuff that relates to human rights, perhaps consider something on Hong Kong right now.

But I think ownership by the Chinese Communist Party, national security considerations, those are really beyond the expertise of U.S.-listed companies and, therefore, adding that requirement would just create sort of vague, nothing to do with us, sort of disclosures.

COMMISSIONER WESSEL: Okay. Zachary? Mr. Arnold, I'm sorry?

MR. ARNOLD: Zach is fine, thank you. Not being an expert on securities law, I couldn't say whether the SEC is the one to do it, but I, as someone who studies this issue, I would like to have more insight into aspects of these transactions.

I guess I would agree with all the other panelists that it will be very important to focus on specific technologies of interest rather than, certainly corporate ownership, or even concepts like dual use.

These are increasingly outmoded concepts, in terms of how we organize policy in an era where the technologies that are central to military strength are increasingly also commercial, whether it's artificial intelligence or robotics or anything else.

COMMISSIONER WESSEL: But, for example, GE and engine technologies and what they may have transferred to the Chinese, should that be disclosable?

MR. ARNOLD: In principle, I would like to know more about it, yes.

COMMISSIONER WESSEL: Okay. Dr. Ozery?

DR. GROSWALD OZERY: Yeah. Just to add a little bit about disclosures with respect to state and Party, I think that I agree with both Anne and Meg, that disclosures about that, whether or not they're important is one thing, but on the other hand, they might just confuse both institutional investors and retail investors.

What does it tell you that there is perhaps company managers that's related to the Politburo, for example? Does it say that the company necessarily was advanced not on commercial terms? Does it maybe say that the state supports this company so it will do better?

Does it say that -- there are so many types of implications that I don't think investors can really understand and take into account, and there could be negative and it could be positive.

And maybe another point with that regards is that we need to account for structure. The structure of these companies listed in the U.S. is very, very important.

It doesn't tell us anything and it doesn't help us anything if we know that the listed entity established in Cayman does not have a Party committee, if you don't require also disclosure about the operating entity in China, which currently, as far as I understand, the holding foreign companies accountable on does not request such disclosure with respect to the operating entity.

So, we also need to think about the structures when we have those things in place.

COMMISSIONER WESSEL: Okay, thank you.

COMMISSIONER FIEDLER: Commissioner Wong, do you have any final questions, second round?

COMMISSIONER WONG: Just one question more, out of curiosity. There's been a lot of discussion here about increased transparency from Chinese companies, combating fraud, and with the statement that the current investors that we have, the institutional investors are quite savvy and protect themselves as they invest amidst uncertainty, or certainty about fraud and corruption.

My question is, let's say that we actually succeed in putting in enforcement mechanisms and the Chinese comply in upping their transparency and their disclosures and elimination, generally, of fraud or up to international standards.

What do you folks predict would be the effect on investment in Chinese companies and in the Chinese market? Would investment dollars go up, given the greater transparency?

Would they go down, because the full extent of the corruption or the fraud is revealed? Would there be a massive reallocation of investment dollars to those companies that do prove themselves to be quite well run?

Or would the overall disclosure make investment unsustainable by institutional investors, because publicly it would be known by every pension fund holder and every 401(k) holder that this is a risk for them?

And then, what does that have effect not just on U.S. investors, but does that affect investors worldwide, where there's not a rush to replace U.S. investment if it does withdraw?

I mean, what is the effect of greater transparency? I mean, it's hard to predict, but I'm just curious.

COMMISSIONER FIEDLER: Three minutes, you have a --

COMMISSIONER WONG: Maybe Anne, I don't know. So, I know Anne's advocating for this greater transparency, and I agree with you, but what might be the effect if it happened?

MS. STEVENSON-YANG: I mean, what would be the effect? It would crash the market prices of all of these Chinese securities and make investing in them more or less untenable, is not going to happen. And this is why the Chinese government is so tremendously resistant to this sort of thing.

No worries, this is happening anyway, and that has to do with international capital flows and the availability of dollars. And I think has a lot to do with the way China has been closing up over the last few months.

But, yeah, it would not be a good thing for share prices at all.

COMMISSIONER FIEDLER: Anybody else?

COMMISSIONER WONG: I mean, this is just fascinating, I mean, because I have a legal background and a little bit of law and economics and the Coase Theorem says information and prices account for all information available.

But if there's this underlying feeling, maybe it's just your opinion and maybe this is not the opinion of others, but if there's an underlying feeling that greater transparency would reveal deep sickness in the Chinese economy and the Chinese corporations, that it would crash markets, yet money continues to rush into that market.

I mean, this is fascinating to me. Am I wrong?

MS. STEVENSON-YANG: Ponzis work until they stop working. I mean, I think much can be said about the sales orientation and the self-serving nature of U.S. financial institutions, but that's beyond the scope of this Commission.

COMMISSIONER WONG: Right.

COMMISSIONER FIEDLER: Oh, it's actually part of it.

COMMISSIONER WONG: And just going back to Ms. Rithmire's observation, and I tend to agree that, again, you're going in with eyes wide open as savvy investors and you're discounting for fraud and taking that into account.

But we have SEC laws for a reason. We have -- there is this idea that, and we've seen examples of it over time, that there is a bandwagoning effect with investment and maybe people, they say they do their due diligence, but they don't.

And I'm still just trying to wrap my mind around this, that if the information was exposed, that there would be large effects in the overall market, negative effects.

DR. RITHMIRE: I agree with Anne that there would be a massive reallocation of prices and a massive change to the Chinese market.

And I also, at risk for the institution I stand in, I think U.S. policy should be focused on protecting all Americans and not protecting the institutional investors that are taking risks with their money. I mean, let them do what they're going to do in foreign markets and we should be focused on protecting our interests.

But I agree that there is substantial price allocation and the fraud, it would reshape Chinese markets as we know it, which is why it wouldn't happen.

COMMISSIONER FIEDLER: Thank you, I want to thank everybody very much. The next panel is getting ready. We have a ten-minute break. This has been extremely interesting, even though I missed part of it, and I'm sorry for that. Thank you, again, and we'll reconvene in ten minutes with Panel II.

(Whereupon, the above-entitled matter went off the record at 11:21 a.m. and resumed at 11:31 a.m.)

PANEL II INTRODUCTION BY COMMISSIONER BOB BOROCHOFF

COMMISSIONER BOROCHOFF: I want to welcome everybody back for Panel II of the hearing on U.S. Investment in China's Capital Market. Our second panel will review China's financial opening and examine U.S. and foreign investor participation in China's capital markets.

First we're going to hear from Dr. Johannes Petry, IRC post-doctoral fellow at the SCRIPTS Cluster of Excellence in Berlin and a research fellow at the Centre for the Study of Globalisation and Regionalisation at the University of Warwick.

Next we'll here from Ms. Teresa Kong, Portfolio Manager at Investment Firm Matthews Asia.

Finally, we're going to hear from Mr. Adam Lysenko of Strider Technologies.

I want to thank all of you very much for being here today and for your testimony. The Commission is looking forward to your remarks. I will ask all of our witnesses to please keep their remarks to seven minutes.

Dr. Petry, we'll start with you.

OPENING STATEMENT OF JOHANNES PETRY, POSTDOCTURAL RESEARCH FELLOW, SCRIPTS CLUSTER OF EXCELLENCE; RESEARCH FELLOW, CENTRE FOR THE STUDY OF GLOBALIZATION AND REGIONALIZATION

DR. PETRY: Fantastic. Thank you for the invitation to testify at this hearing.

In my written statement I was asked to address a number of more specific questions on China's portfolio investment regime, index providers and U.S. investment restrictions and I will try to combine those issues in my remarks while offering a broader picture of China's capital markets and its global integration based on several years of my research.

So, to understand China's portfolio investment regime it's important to acknowledge that capital markets in China function quite differently than global markets. So, in essence this means that rather than the underlying principle of markets being the achievement of efficient outcomes through enabling the creation of private profit and the free flow of capital, capital markets in China are also designed to enable state control of market activities when market outcomes are directed towards national development policies. And this is really ingrained in how markets are organized in their infrastructures.

And this different logic of organizing markets also extends into China's investment regime. So, on the one side a more integrated and professionalized capital market is very much in China's national development interest. However, they lack the knowledge and expertise to develop this independently, so global institutions have a role to play in this process.

On the other side the authorities are quite wary of losing control over their markets, so while it is important to have a strong financial sector, this should be independent and without foreign influence, let alone dominance.

So rather than simply opening up their markets, the Chinese authorities try to manage the market opening process and the market infrastructures that link Chinese with global markets, such as the R(QFII) investor scheme, but especially Stock or Bond Connect, are designed to facilitate national development policies while maintaining this control of the markets. I describe this in more detail in my written testimony and cited research, and I won't go into detail here. However, this regime has implications for Chinese listed companies and financial industry.

So, first of all as already discussed in the previous panel, stock markets in China are not primarily designed to enable and open market for corporate control, such as M&As, and funding is also not the primary purpose of capital markets because a lot of companies in China have access to bank loans.

Capital markets are much more directed towards corporate reform with the aim of creating national champions. This started with SOEs but is also extended to private companies and linked to industrial policies such as Made in China 2025, and thereby a certain degree of foreign investment is quite helpful. However, foreign investment is not meant to translate into foreign control or dominance of Chinese companies. That's why you have a 30 percent cap in a lot of industries. However, this limited foreign investment translates into several national development aspects, if you will.

On the one side for an investor's help to develop Chinese capital markets more broadly, they improve listed company's corporate governance, they professionalize the Chinese financial industry, and they stabilize the Chinese market which is dominated by speculating retail investors.

And on the second level, as strategic investors, they are much more directly involved in Chinese companies' business activities. So in the financial industry that I study, the most pursued approach has been establishing joint ventures which then gave Chinese companies access to training facilities, technology and the international business networks of their global partners that are facilitating this creation of national champions. And I believe Adam's testimony will speak to that in more detail.

So in this process foreign ownership in Chinese A-shares has increased from 0.5 to 4 percent since 2014, and mainly this has been due to index inclusions. And I realize that in the previous panel a lot of the discussion was about savvy investors, but actually there is a difference between different types of investors in the Chinese markets.

Yes, you have your big investment banks and brokers and hedge funds there, but a big shift came from index providers or other index funds which are steered by index providers, which have become key actors in global markets. And this is especially with the role of passive investment after the Global Financial Crisis which made index decisions much more consequential because passive funds simply replicate an index and changes to index composition lead to quasi-automatic asset reallocations. So,the inclusion and exclusion and weighting of companies or countries such as China in indices is based on criteria defined by index providers whereby they steer capital.

And with respect to China, since 2017, China has been included into most major stock and bond indices and while its providers had pondered whether to include China since at least 2013, the main reason for repeated non-inclusions was restricted investor access to China's capital markets. This, however, changed with Stock Connect as foreign investors were much more willing to invest into China. So, these different infrastructures that link China's global markets are really important here.

And therefore the index inclusion was actually quite a boon for China's integration into global markets as it attracted long-term investors which were now forced to invest into China through index inclusion. The mechanism, however, maintained the characteristics of how markets function, so Stock Connect allows investment flows while maintaining capital controls and the monitoring of trading behavior and so on. As a result of that, foreign ownership of Chinese stocks and bonds almost tripled since 2015.

Now with respect to U.S. investment restrictions, there are three effects that could be measured here. The first is the effect on the asset allocation of U.S. investors, and if the aim was -- of these restrictions-- was to prevent U.S. investment into specific Chinese companies, this has been very effective through index exclusion, et cetera. However, the effect on these companies has been quite moderate, especially because -- mainly because-- international investors substituted U.S. disinvestments. So, there's a problem of U.S. unilateralism here.

And thirdly, is the effect on the Chinese capital markets as a whole where this really didn't make a dent. You had 1 trillion U.S. dollars of inflows into Chinese stock and bond markets in 2020 alone.

So, in theory restricting investments into specific companies is actually quite a smart economic policy tool and can help to achieve national development interest, national security interest. However, rather than more sweeping sanctions that equally harm both U.S. and Chinese economies, kind of surgically removing particular companies from investment decisions minimizes financial collateral damage. However, in order to be effective two criteria need to be met here:

First, if not a majority of the international investment community is on board, unilateral action is ineffective and can backfire. So international cooperation is crucial and should also involve European and other Asian counterparts in a multilateral effort.

And secondly, these standards should be transparent and applied consistently across countries, otherwise the U.S. risks to undermine the very principles that distinguish its capital markets from those in China: capital markets based on efficiency and free choice rather than being politicized.

This doesn't mean that liberal markets cannot be regulated. They can be regulated according to certain normative considerations that are applied universally, like if you think of ESG for instance, but they could quickly become illiberal when targeting one specific country for political reasons. So rather than investment restrictions based on short-term considerations these long-term effects should also be considered. Thank you very much.

PREPARED STATEMENT OF JOHANNES PETRY, POSTDOCTURAL RESEARCH FELLOW, SCRIPTS CLUSTER OF EXCELLENCE; RESEARCH FELLOW, CENTRE FOR THE STUDY OF GLOBALIZATION AND REGIONALIZATION

Dr. Johannes Petry
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"Testimony before the U.S.-China Economic and Security Review Commission"

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

19 March 2021

It is my honor to provide testimony on China's financial opening process. This statement aims to provide an overview of and background information on the functioning of Chinese capital markets and China's foreign investment regime as well as global investments into China and the role of index providers in this process. The below comments seek to address the questions raised by the Committee. However, it is important to note that existing research (by others and myself) has not yet fully analyzed the most recent developments in this process and especially the recent US-China investment restrictions are not as thoroughly researched as other aspects of this topic. Some assessments are therefore not backed up by as much rigorous research as others. I am looking forward to answering any remaining questions.

1. How does the Chinese government steer foreign portfolio investment inflows to achieve national development objectives? How/why does it continue to restrict foreign investment?

To understand China's foreign investment regime, in a first step it is important to acknowledge that capital markets in China function quite differently from 'global' capital markets (i.e. capital markets as they exist in the US or Europe). While Chinese capital markets have been rapidly developing in recent years, they are embedded within China's socio-economic system of state capitalism (for lack of a better term). Chinese capital markets function according to a different institutional logic than 'liberal' global capital markets. In essence, this means that rather than the underlying principle being the achievement of efficient outcomes through enabling private profit creation and the free flow of capital, capital markets in China are designed to enable state control over market activities while market outcomes are directed towards national development policies.[1]

This does not mean that profit creation does not play a role in Chinese markets. Like any capital market, Chinese markets are populated by millions of profit-driven speculating investors. But while efficiency through profit creation and free markets is the primary underlying principle in liberal global markets, in China the state intervenes into capital markets in order to facilitate state objectives. The defining difference between liberal and state-capitalist logic is not the existence of capital markets per se but rather the principles that underlie market organization (profit creation vs state objectives) and the actors that dominate/shape these markets (private financial actors vs state institutions). Thereby, however, certain levers of state control remain intact as a state-capitalist institutional logic is engrained in financial market infrastructures – the socio-technical arrangements that enable the functioning of capital markets. These market

[1] For two detailed academic studies on this topic, see:
Johannes Petry (2020) Financialization with Chinese characteristics? Exchanges, control and capital markets in authoritarian capitalism, *Economy & Society*, 49 (2): 213-238 (https://doi.org/10.1080/03085147.2020.1718913);
Johannes Petry (2020) Same same, but different: Varieties of capital markets, Chinese state capitalism and the global financial order. *Competition & Change* (https://doi.org/10.1177%2F1024529420964723).

infrastructures are organized by China's state-owned (stock and futures) exchanges which establish constraints and incentives for market actors, whereby they shape how markets work and attempt to direct market outcomes towards specific state policies. While state guidance of capital markets is never absolute, what can be observed in China is that a way of thinking about, managing and governing capital markets has emerged that significantly differs from global markets.

This different logic of organizing capital markets also extends to how foreign portfolio investment enters China. From being virtually isolated 20 years ago, portfolio investment flows into China increased unprecedentedly in the last couple of years (figure 1). However, as one interviewee during my research stated with respect to this global integration, 'it's absolutely a love and hate story, they love the money, love the stability, hate giving up control… and hate it if foreign investors want to dominate the terms'.[2] On the one hand, global investors can help facilitate the professionalisation and institutionalisation of China's financial industry which has been an important government policy in China's market development. Having a strong domestic financial sector is crucial for China's aspirations to becoming a global financial powerhouse. Increasing portfolio investment through international investors also alleviates pressures stemming from capital outflows. Hence, a more internationally integrated and professional capital market is very much in China's national developmental interest. As they lack the know-how and expertise to completely develop this independently, global financial institutions have a role to play in this process. On the other hand, the authorities are wary of losing control over market development through an increasing influx of foreign money. For the Chinese authorities, it is important to have an independent financial sector without foreign influence, let alone dominance. This is especially important with respect to differences between what the regulators sometimes refer to as 'hot money' (short-term speculators such as hedge funds) and 'real money' (long-term investors such as pension funds).

The Chinese authorities do not want to see sophisticated foreign speculators coming into China and potentially disrupt the domestic market. Especially events such as Japan's financial liberalisation in the late-1980s or the Asian Financial Crisis in 1997 and the impact these events had on domestic economic systems, made an impression on Chinese regulators and they do not want such developments unfolding in China, especially as their markets are already quite volatile due to the strong presence of domestic retail investors. In contrast, long-term investors such as pension funds, endowments, insurance companies and especially passive investment are treated differently as they are perceived to stabilize the Chinese market, also countering the speculative activities of Chinese retail investors. Consequently, the institutional logic that informs capital market integration is markedly different in Chinese and global capital markets. Rather than simply opening up their market, the Chinese authorities try to create the right conditions to attract long-term rather than short-term global investors. They do so by creating financial infrastructures that enable this global integration to facilitate national development while strictly maintaining control. Rather than a 'Big Bang' style liberalization, China's capital market opening is managed in a way so that it enables foreign investor participation while simultaneously maintaining a distinctively state-capitalist logic of running capital markets.

This extends beyond a mere analysis of capital controls, and as noted above a more nuanced picture of China's financial opening emerges by looking at financial infrastructures. Here, it is helpful to point towards the following statement that an emerging markets strategist of a global exchange made during an interview:

> I have an analogy… […] If you look at capital controls as a wall, people have eliminated them in different ways… and you can remove the wall, full liberalisation, Big Bang, and that has a whole range of problems… you can remove it gradually… or you can do what

[2] Interview: CEO, asset manager (Hong Kong, 28 June 2017).

> the Chinese are doing and build holes through it. It's this pilot project approach, you build holes and then you think you can repair them if needed, and you leave the height of the wall more or less intact.[3]

In order not to disrupt the domestic economy, investment flows are controlled through the infrastructural arrangements of the financial integration process (the 'holes' in the wall). The financial infrastructures that link Chinese capital markets with global markets – such as the (R)QFII investor scheme or the Stock Connect are designed to facilitate national development while maintaining state control.

The first mechanisms that enabled such cross-border access were the Qualified Foreign Institutional Investor (QFII), Qualified Domestic Institutional Investor (QDII) and Renminbi Qualified Foreign Institutional Investor (RQFII) programmes launched in 2003, 2006 and 2011, respectively. While QDII enabled designated Chinese investors to conduct financial transactions in global markets, QFII and RQFII investors could trade in Chinese capital markets. These schemes reflected the government policy of 'going out' and 'bringing in', thereby enabling the control of cross-border transactions for instance by quelling capital outflows after the 2015/2016 market crash. However, trading through these quotas was cumbersome and they were only issued to a few institutions.[4] In recent years, a much more comprehensive system of cross-border financial infrastructures has been created with the establishment of the Stock Connect between HKEx, SSE and SZSE in 2014 and 2016. Institutional investors viewed the Stock Connect as a more flexible access framework compared to the QFII and RQFII regimes, and consequently many large asset managers switched from (R)QFII to Connect funds.[5] However, the infrastructural arrangements of Stock Connect are also informed by state-capitalist logic.

On the one hand, following a state-capitalist logic the Connects also enable the tight control of markets. Because it is designed as 'closed loop', Stock Connect enables Chinese investors to diversify their portfolio and professionalize, while at the same time prohibiting capital outflows. This reversely applies to international investors. So, despite order routing and enabling transaction flows between the two markets, the Connect maintains Chinese capital controls. For the Connects, 'home-rules' also apply, and international investors must adhere to the characteristics of Chinese markets such as limited order types and data availability or t+1 (no intra-day trading).[6] Through the introduction of the so-called Northbound investor identification system in September 2018, the Chinese monitoring system to identify and track the behavior of individual investors was also applied to international investors investing through the Stock Connect.

On the other hand, Connect facilitates national development policies. For one, through increased cross-border market integration, Connect facilitates the Chinese governments' objective of educating and professionalizing Chinese investors. By early 2020, 8% of equity trading volume on HKEx was already conducted by mainland investors. Reversely, international investors can invest into China in a more seamless way than previously. As Bin Shi, Head of Equities at UBS Asset Management, noted: 'Hong Kong and China – these were two separate markets, the Stock Connect changed this! Much more so than QFII'.[7] International

[3] Interview: emerging markets strategist, exchange (London, 11 January 2018).
[4] For a complete list of all issued quotas, see: https://www.safe.gov.cn/en/AdministrationInformation/index.html.
[5] Mark Stephenson, Index Equity Portfolio Manager for iShares MSCI China A UCITS ETF at BlackRock, MSCI/iShares 'Bring your A Game to Investing in China' Webinar (20 September 2018).
[6] For a detailed analysis, see:
Johannes Petry (2020) Financialization with Chinese characteristics? Exchanges, control and capital markets in authoritarian capitalism, *Economy & Society*, 49 (2): 213-238 (https://doi.org/10.1080/03085147.2020.1718913).
[7] 'Equities Market Development Including Stock Connect' Panel, 7th ASIFMA China Capital Markets Conference (Hong Kong, 14 June 2017).

institutional investors thereby also have a calming effect on China's volatile stock market, especially because Stock Connect attracts the right kind of – i.e. long-term – investors (as discussed below in the discussion of China's index inclusion).

Overall, Stock Connect has proven to be a successful model for the Chinese government because its cross-border infrastructural arrangements successfully balance the state-capitalist objectives of national development and control. In fact, all other mechanisms that integrate China with global markets and enable foreign investors' access are similarly designed to enable market control, intervention and monitoring while facilitating national development objectives (figure 2).

2. What benefits do Chinese companies hope to derive from the financial resources and knowledge they acquire from foreign investors?

While historically China's financial system was largely bank-based, in the last decade capital markets have become much more important for corporate governance and corporate finance. The original purpose of stock markets in China was facilitating the reform and restructuring of state-owned enterprises while maintaining a degree of state control over these companies.[8] Therefore, capital markets in China are not primarily designed to enable an open market for corporate control as in liberal markets that are focused on shareholder value orientation and enabling mergers and acquisitions (M&As). Funding is also not the primary purpose of capital markets, especially as many companies listed in China can rely on extensive funding through Chinese banks, while equity market financing is rather used to bolster and complement existing business activities. Capital markets are much more directed towards corporate reform with the aim of creating national champions.

Two specific national development policies are also linked with the increasing importance of stock markets for China's state capitalism. First, the 'Going Global Strategy' (or 'Go Out policy') first announced in 1999 took off after the global financial crisis as China became an exporter of capital and outward FDI began to surpass inward FDI with increasing overseas acquisitions, especially in Europe and the US. Second, for China to climb up the value chain from the cheap, low-quality and labour-intensive 'factory of the world' towards more capital- and technology-intensive production of high-value goods as envisioned by the 'Made in China 2025' strategy that was announced in 2015. To a significant part, these programmes rely on the continued reform, financing and governance of Chinese companies through capital markets as noted during the CCP's 18th National Congress in 2012.

In creating national champions, a degree of foreign investment is very helpful. But it is important to note that foreign investment is thereby capped at 30% of a companies' outstanding shares. So, while foreign investors are encouraged to invest into Chinese companies through infrastructures such as Connect as well as recent financial market reforms in 2020, this investment is not meant to translate into foreign investor dominance, let alone control, of Chinese companies. Rather, foreign investors have three tasks.

First, one aim is to help professionalise the Chinese market and, by extension, the Chinese financial industry. Especially with an increasing importance of capital markets for China's political economy, developing their own competitive financial sector has become very important for Chinese officials. Rather than be dependent on foreign financial institutions, such as US investment banks, there is a growing understanding that financial markets are a powerful,

[8] See: Yingyao Wang. The rise of the 'shareholding state': financialization of economic management in China, *Socio-Economic Review*, 13(3): 603-625 (https://doi.org/10.1093/ser/mwv016).

potentially harmful force but also a tool that is best owned and wielded independently. Since CITIC Securities' unsuccessful bid for Bear Stearns in 2008, it became clear that China's authorities were serious in their aspirations to create their own globally competitive investment banks – a 'Chinese Goldman Sachs'. Importantly, global financial institutions have thereby been both utilised by the Chinese authorities to facilitate this learning process but also kept at bay by not allowing them too much influence and market power. Second, as already noted, another aim is to stabilise the Chinese market which is dominated by domestic retail investors with very volatile trading behaviour. Especially through Connect, which is dominated by pension funds and passive investment, foreign investors act as patient capital (see section below). These two dimensions refer to any kind of foreign investment into Chinese capital markets. However, one needs to distinguish between 'normal' portfolio flows into China, for instance, as a result of index inclusions, and strategic investments into Chinese companies.

Third, as strategic investors, foreign financial institutions are linked more closely with Chinese companies themselves, as strategic investment is aimed to directly facilitate the development of their business activities. Until 2020, the most pursued approach had been for international banks, brokers, and asset managers to establish joint ventures with Chinese counterparties. This has been the preferred Chinese government option for onshore access. Similar to joint ventures in the manufacturing sector, the idea was to facilitate a 'legitimised transfer of intellectual property', as one interviewee called it.[9] For global financial institutions, the prospect of future access to China is an important driver of these often-lopsided arrangements, because 'they all know the huge potential that exists… so they make a lot of concessions and spend a lot of money'.[10] Even though it is much easier for international financial institutions to establish fully-owned operations in China since reforms in early 2020, they still require regulatory approval. Overall, strategic investments (not limited to joint ventures) have therefore been an important driver of the professionalisation of China's financial industry.

By gaining access to training opportunities, knowledge and technology transfer or international business networks for Chinese companies, the government utilizes strategic investments to further their national development of creating globally competitive national champions. This engagement with international counterparts mirrors China's overall industrial upgrading strategy where international cooperation is used to facilitate innovation and knowledge exchange, in turn facilitating national development in a state-capitalist logic.

3. How did the Chinese government engage investment index providers and foreign asset managers in this process? What do these negotiations tell us about the Chinese government's attitudes toward foreign investor participation?

Index providers such as MSCI, FTSE Russell and S&P DJI form a vital part of global financial markets, steering capital through including/excluding countries and companies from indices (see section below). In June 2017, MSCI decided to (gradually) include China A-shares into its emerging market index which serves as a benchmark for investments worth US$1.8 trillion, followed by FTSE Russell and S&P DJI in 2018. In early 2019, MSCI then announced to quadruple the weighting of Chinese A-shares to 20%. By March 2019, index inclusions had steered at least US$84 billion of passive and active investment into China's stock market, with resulting long-term inflows estimated at US$400 billion over the next decade.[11]

[9] Interview: business development, index provider (Hong Kong, 27 September 2018).
[10] Interview: APAC director, global exchange (Singapore, 7 December 2017).
[11] *South China Morning Post* 'US$400 billion expected to flow into Chinese stocks after MSCI inclusion: top fund manager' 15 May 2018.

Over the years, MSCI had been in close contact with Chinese regulators, advising on how to meet inclusion requirements. Some observers suggest that Chinese regulators made concessions to MSCI. The Chinese exchanges had for instance been actively improving the suspension system of Chinese companies, improving English information services and assisting Chinese companies in how to become eligible for index inclusion. Others, however, voiced concerns that the inclusion resulted from pressure by the Chinese government and MSCI's profit expectations through increased access to China. The *Wall Street Journal*, for instance, highlighted that Chinese asset managers suspended cooperation talks with MSCI and that the Chinese exchanges threatened to cancel MSCI's access to Chinese stock market data in case of a non-inclusion.[12] The truth probably lies somewhere between.

However, it is also important to take into account the increasing preference of global investors for Chinese investments. Although MSCI had pondered whether to include China since 2013, the main reason for repeated non-inclusions was restricted investor access to China's capital market. This changed with Stock Connect which was crucial for MSCI and other index providers' decisions to include Chinese A-shares into their indices. As Chin-Ping Chia, MSCI's Head of Asia-Pacific Equity Research, stated: '[Previously] the access scheme was based on the (R)QFII framework, and it was certainly challenging for some investors to get the license and invest… but the whole development of Connect was a very big game changer'. [13] International investors were much more willing to invest in China through Stock Connect, especially as China increasingly became too big to ignore in global capital markets, which was also revealed in index providers' consultations with their clients (i.e. international investors). While only 1,700 SPSA accounts to trade China via Stock Connect existed before MSCI's inclusion in June 2017, their number increased to over 9,700 by January 2020. Consequently, foreign ownership of Chinese stocks and bonds almost tripled since 2015 (figure 3).

Overall, none of the Chinese exchanges' activities to accommodate index inclusions went against state-capitalist logic: market access through Stock Connect enabled continued market control and improving companies' English language capabilities and tightening delisting rules only improved corporate governance, facilitating the development goal of company reforms. Essentially, index inclusions were a boon for China's integration into global markets as it brought China's financial integration even more in line with state-capitalist logic. As one Hong Kong-based asset manager noted during an interview, while 'Chinese regulators still don't like hedge funds, fast money, *MSCI inclusion attracts the right kind of foreign investors* – long-term, passive, they trade very little…'.[14] Through the index inclusions, such long-term investors were forced to invest into China. Similarly, Julien Martin, General Manager of Bond Connect, stated: 'I do consider the inclusion as sort of a trigger… […] from arbitrage and fast money going in, we finally see global asset managers to look at China, making their accounts ready, investing into China'.[15]

With its index inclusions, China had arrived in the upper echelons of global finance. However, this unprecedented inflow of foreign capital takes place according to rules set out by China's exchanges and follows a state-capitalist logic – facilitating the professionalisation and institutionalisation of Chinese markets (national development) while maintaining Chinese exchanges' monitoring and intervention system as well as reducing market volatility (control).

[12] *Wall Street Journal* 'How China Pressured MSCI to Add Its Market to Major Benchmark' 3 February 2019.
[13] MSCI/iShares 'Bring your A Game to Investing in China' Webinar (20 September 2018).
[14] Interview: product development, asset manager (Hong Kong, 3 July 2017).
[15] HKEx/Risk.net 'Chinese Bonds – Riding the Waves of Foreign Inflows' Webinar (28 November 2018).

4. What kind of regulation concerning the scope and limits of index provider authority with respect to individual companies is appropriate?

Index providers have increasingly become key actors in global financial markets. In order to discuss their regulation, one first has to look at their transformation and changing role in global capital allocation. [16] Historically, index providers were primarily providers of information. Indices were 'news items', helpful for investment decisions — but arguably not essential. Indices are numerical tools that enable comparative evaluations of groups of assets over time. The purpose of indices is to display the performance of specific (and often complex) economic entities such as national stock markets. Actively managed funds used these indices as baselines to compare their performance, but indices were not expected to direct financial markets. The hallmark of active investors was to be different from the index — the index was there to be beaten. Hence, index providers' decisions over the composition of their indices had relatively limited impact on financial flows as their exact composition was not yet crucial to investors, listed companies or countries (see figure 4). This changed fundamentally with the global financial crisis, which triggered two reinforcing trends: concentration of the index industry and the rise of passive investment. Together, these transformed index providers from merely supplying information to exerting power over asset allocation in capital markets globally.

First, the index industry concentrated — not least because banks sold non-core businesses to raise cash, as they tried to stay afloat during the global financial crisis. By 2017, the three major index providers S&P DJI, MSCI and FTSE Russell accounted for 27%, 26% and 25% of global revenues in the index industry, respectively. This market concentration led to a growing power position of the few index providers that had historically positioned themselves and their brands in financial markets. With profit margins averaging between 60-70%, they operate in a quasi-oligopolistic market structure. This is because their indices are not easily substitutable, due to unique brand recognition and network externalities, e.g. through liquid futures markets based on their indices. The S&P 500, for instance, represents US blue chips like no other index. It is also the most widely tracked index globally, and S&P 500 index futures are the most traded futures contract in the world (figure 5).

Second, and more importantly, the money mass-migration from active towards passive investments significantly increased the authority of index providers. They came to influence asset allocation in unprecedented ways, as more and more funds directly tracked the indices they own, construct and maintain. ETFs indexed to FTSE Russell indices more than doubled from US$315 billion in 2013 to US$765 billion in 2019. Meanwhile passive funds tracking MSCI indices increased more than sevenfold between 2008 and 2020, from $132 billion to more than $1 trillion. ETFs and index mutual funds that follow S&P DJI indices increased from $1.7 trillion in 2011 to staggering $6.3 trillion in 2019. This trend had continued since. Whereas in the past indices only loosely anchored fund holdings around a baseline, now they have an instant, 'mechanic' effect on the holdings of passive funds. As passive funds simply replicate an index, index providers' decisions to change index compositions lead to quasi-automatic asset reallocations. Index providers now effectively 'steer' capital flows.

In addition, index providers increasingly also have a steering effect over actively managed funds as benchmarking against indices has reached enormous proportions: US$14.8 trillion, US$16 trillion and US$11.5 trillion of assets (equities and bonds) were benchmarked against the indices of MSCI, FTSE Russell and S&P DJI in 2018/19, respectively. This is up from US$7 trillion (MSCI), US$7.1 trillion (S&P DJI) and US$7.1 trillion (FTSE & Russell) in 2013.

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[16] We analyze this in detail in the following academic study:
Johannes Petry, Jan Fichtner & Eelke Heemskerk (2021) Steering capital: the growing private authority of index providers in the age of passive asset management, *Review of International Political Economy*, 28(1): 152-176 (https://doi.org/10.1080/09692290.2019.1699147).

Nowadays, index changes need to be reflected by actively managed funds which measure their performance against these indices. From a mere information tool, they have become crucial baselines to inform investment decisions. Thereby, the rise of passive management also increases the authority of index providers through active management. By steering evermore passive capital, index decisions mechanically move ever larger parts of the markets. This produces a 'pull effect' that actively managed funds need to follow. Next to these large benchmarks, index providers also create tens of thousands of customised indices for their clients that inform their investment strategies. Overall, with the ongoing shift towards passive asset management, index providers turned into powerful market actors. No longer mere benchmarks, their indices have become central building blocks in this new era of US financial markets. Which companies or countries are included into an index or excluded (i.e. receive investment in- or outflows) is based on criteria defined by index providers, thereby setting standards for corporate governance and investor access. In the past, the purpose of indices was to measure markets, now they move markets.

However, so far, no regulation governs index providers' investment decisions and index providers often deflect responsibility for investment decisions. This was for instance demonstrated by the efforts of a large group of international investors (170+ firms representing $9.7trillion of assets) to convince index providers to exclude manufacturers from controversial weapons such as cluster bombs, landmines or biological/chemical weapons from their benchmark indices. In their response, however, the index providers noted that their task was merely to create a representative picture of stock markets with their benchmarks whereas they offered other indices to take into account such investor preferences.[17] However, this neglects fact that the main benchmarks of index providers – be it the S&P500, FTSE100 or MSCI Emerging Markets – are tracked by a multiple of assets than their other index products, largely due to the above-described brand recognition and network externalities. Hence, if the benchmark does not change, changes of changing asset allocations are small.

Rather than merely representing a market with their benchmarks, nowadays index providers increasingly define what this market is and have a significant influence on investment decisions. These investment decisions, however, are reversely based on a methodology that aims to represent the market – and are not subject to any specific guidelines. Closer regulatory scrutiny should therefore be put on index providers and their changed role within capital markets. Whether to invest in companies linked to the Chinese military, companies such as Saudi Aramco, or controversial weapons is not merely a technical decision.[18] As a forthcoming paper in the Harvard Business Law Review argued, under the relevant statutory and regulatory regimes, index providers are investment advisors and should be regulated as such by the SEC.[19] This is especially important as this power to steer investments and set standards is concentrated in the hands of very few private firms which form an oligopoly that dominates the index industry with high barriers of entry which severely limit competition.

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[17] *Investors & Pensions Europe* 'Index providers respond to controversial weapons campaign' 14 February 2019.
[18] *Washington Post* 'Index funds might sound boring. But who decides which countries and companies to include?' 8 January 2020.
[19] Paul G. Mahoney & Adriana Robertson (forthcoming) Advisers by Another Name. *Harvard Business Law Review* (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3767087).
See: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3767087.

5. How do you assess the impact of current U.S. restrictions on investment in Chinese companies listed on the Mainland?

With respect to current US restrictions on investment in Chinese companies, the question is what these restrictions aim to achieve. There are three potential effects that the restrictions could have: on US investors; on banned Chinese companies; and on Chinese capital markets more broadly.

First is the effect on the asset allocation of US investors. Following the investment ban, index providers such as MSCI, FTSE Russell and S&P DJI have excluded select Chinese firms from their indices. In the case of MSCI, 10 Chinese companies were deleted from the index which in total represent 0.28% of the MSCI Emerging Market index.[20] Further, US investment banks have delisted hundreds of derivatives linked to these companies which reduced hedging possibilities of these stocks.[21] Therefore, the investment ban led to rapid immediate investment flows out of these individual stocks, e.g. the Chinese telecommunication firms listed in Hong Kong.[22] If the aim of current restrictions has been to prevent US financial institutions from investing into certain Chinese companies, then they have been very effective.

Second, is the effect on specific Chinese companies. Here, the effect has been more mixed, as other international investors substituted for US divestments. As a recent Reuters article highlighted, after a brief drop in share prices after US restrictions set in, European and Asian investors quickly snatched up discounted stocks of these Chinese companies, driving their prices up again.[23] At the time of writing, the effect of US investment restrictions on the share performance of banned Chinese companies has only been moderate. Of course these restrictions had an impact on these companies, also with respect to the reduced hedging possibilities noted above. But as previously noted, Chinese companies – especially when listed in mainland China – do not list because of funding needs. Therefore, the effects of investment outflows are measured compared to similar outflows in US markets. The effect on Chinese companies has been smaller, largely because of US unilateralism.

Third, is the effect on Chinese capital markets as a whole. As of 2020, Chinese companies account for 40.95% of the MSCI EM index as their weighting has more than doubled since 2014 (18.24%).[24] US investment restrictions have therefore hardly made an impact on the overall allocation of assets into Chinese companies. Only targeting a small number of companies does not reverse the massive funding shift into the Chinese economy. According to a recent study in the Financial Times, global investors poured more than $1trillion into Chinese capital markets in 2020 alone. [25] In particular US financial institutions have been rapidly expanding their China allocations in recent years. Hence, rather than actually restricting access to Chinese capital markets, the restrictions probably had a larger effect on the performance of US investors, which were not able to capitalize on the same gains as other international investors eager to invest into China. As long as Chinese capital markets continue to offer large returns and the Chinese economy remains the world's economic engine, international investors will continue to flock to Chinese capital markets.

If the aim was to restrict funding access for Chinese companies more broadly, another much more drastic solution would be widespread sanctions as in the case of Iran. But given the

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[20] MSCI press release (https://www.msci.com/documents/10199/63363b6c-281f-798e-7f57-10728bb5b964=.

[21] *Wall Street Journal* 'Blacklisting of Chinese Stocks Prompts Banks to Delist Hundreds of Derivatives' 8 January 2021.

[22] *Bloomberg* 'MSCI Deletions Trigger Rush to Sell Chinese Telecom Stocks' 8 January 2021.

[23] *Reuters* 'Sanctions-hit Chinese firms surge as global buyers swoop in' 14 January 2021.

[24] See: *MSCI* 'The Rise of Emerging Markets and Asia'(https://www.msci.com/insights-gallery/emerging-markets).

[25] *Financial Times* 'Global investors place Rmb1tn bet on China breakthrough' 14 December 2020.

increasing interconnectedness of Chinese and US financial systems / economies, such actions would be non-advisable. Further, it is also important to remember that over the last decade, facilitating such access for US investors to China had in fact been an important policy goal of the United States. As noted above, global capital markets are built upon the principle of free markets, an idea that the US championed and facilitated in emerging markets across the globe, especially vis-á-vis China. Such actions would not only mark a reversal of decade-long US foreign economic policy but also increasingly undermine the principles that distinguish US capital markets from Chinese markets: a focus on free, accessible markets based on efficiency, rather than markets being politicized.

Threats by the Trump administration to delist Chinese companies following the Luckin Coffee scandal have, for instance, further bolstered China's state-capitalist markets as many overseas-listed Chinese companies are now pursuing (secondary) listings in Hong Kong and Shanghai. When SSE's STAR market was launched in June 2019 to 'bring home' Chinese tech companies, it was initially unsuccessful at that. It was only deteriorating Sino-American relations that pushed Chinese unicorns towards a Chinese listing and propelled STAR to become the world's 3rd largest IPO market in 2020. With more Chinese companies coming home, the Chinese exchanges' influence over Corporate China only increases, as a state-capitalist market logic now also encompasses Chinese companies previously listed in the US. As this example demonstrates, such unilateral US policies can easily backfire and can even strengthen Chinese capital markets.

6. What recommendations for legislative action would you make based on the topic of your testimony?

Index providers. Currently, no regulation guides index calculation which is aimed at representing specific stock markets. As argued above, it should be considered whether index providers ought to be regulated as investment advisors by the SEC. This applies both to their customised indices as well as their benchmarks. Whether with respect to investment into Chinese companies with military links or other areas (e.g. controversial weapons), the SEC should aim to create a regulatory framework for index providers and their business activities.

In the European Union, certain regulations such as the Benchmarking Regulation (BMR) that was created after the LIBOR-scandal as well as the Sustainable Finance Taxonomy to standardise ESG investment already seem to influence index creation (albeit the exact extent of this influence is not clear yet). If the US government were to assess tools to influence index provider activities, these two EU regulations might be good starting points.

US investment restrictions. Current restrictions are effective in preventing US financial firms from investing into China. It does not, however, significantly impact the activities of Chinese firms, let alone Chinese capital markets more broadly.

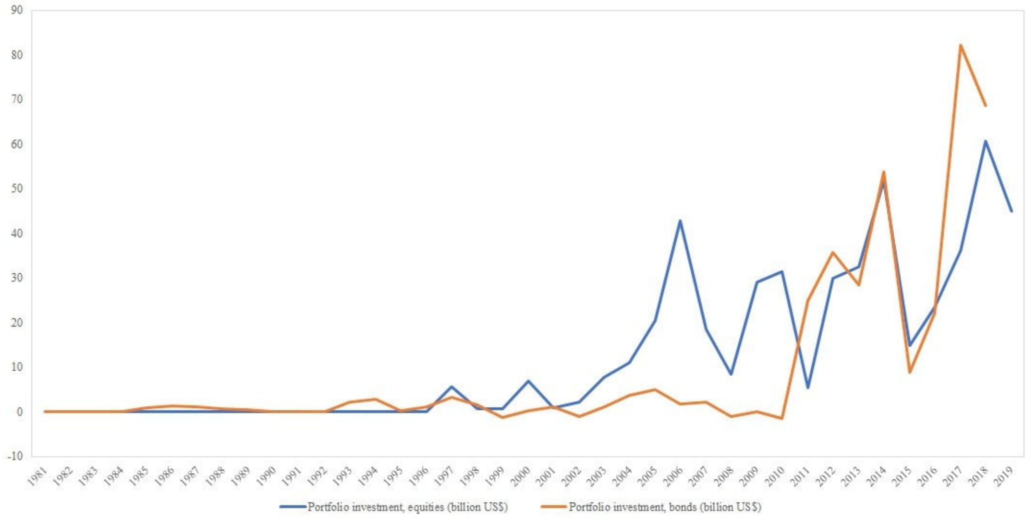
On the one hand, unilateral action can backfire. Threats to delist Chinese companies (after Luckin Coffee) have only bolstered the development of China's capital markets. Similarly, the unilateral investment ban has probably harmed US investors more than the delisted Chinese companies. On the other hand, I would strongly advise against more sweeping measures (e.g. sanctions). First, the Chinese and US financial systems are very strongly entangled and such measures would inevitably hurt both economies. Second, this would also undermine the principles that distinguish American from Chinese capital markets (efficiency / free flow of capital vs politicized / controlled markets).

In theory, restricting investments into specific companies is a smart economic policy tool. Rather than more sweeping measures that equally harm both the US and Chinese economies, 'surgically' removing particular companies from investment decisions minimizes financial collateral damage. However, in order to be effective, two criteria need to be met.

First, international cooperation is crucial. If not the majority of the international investment community is on board, restrictions mainly effect the US as the restricting country (US investors), not the restricted entities (Chinese companies). Hence, regulations should also involve European investors, maybe also institutional investors from Japan or Korea, in a multilateral effort. Unilateral action is not effective in this respect.

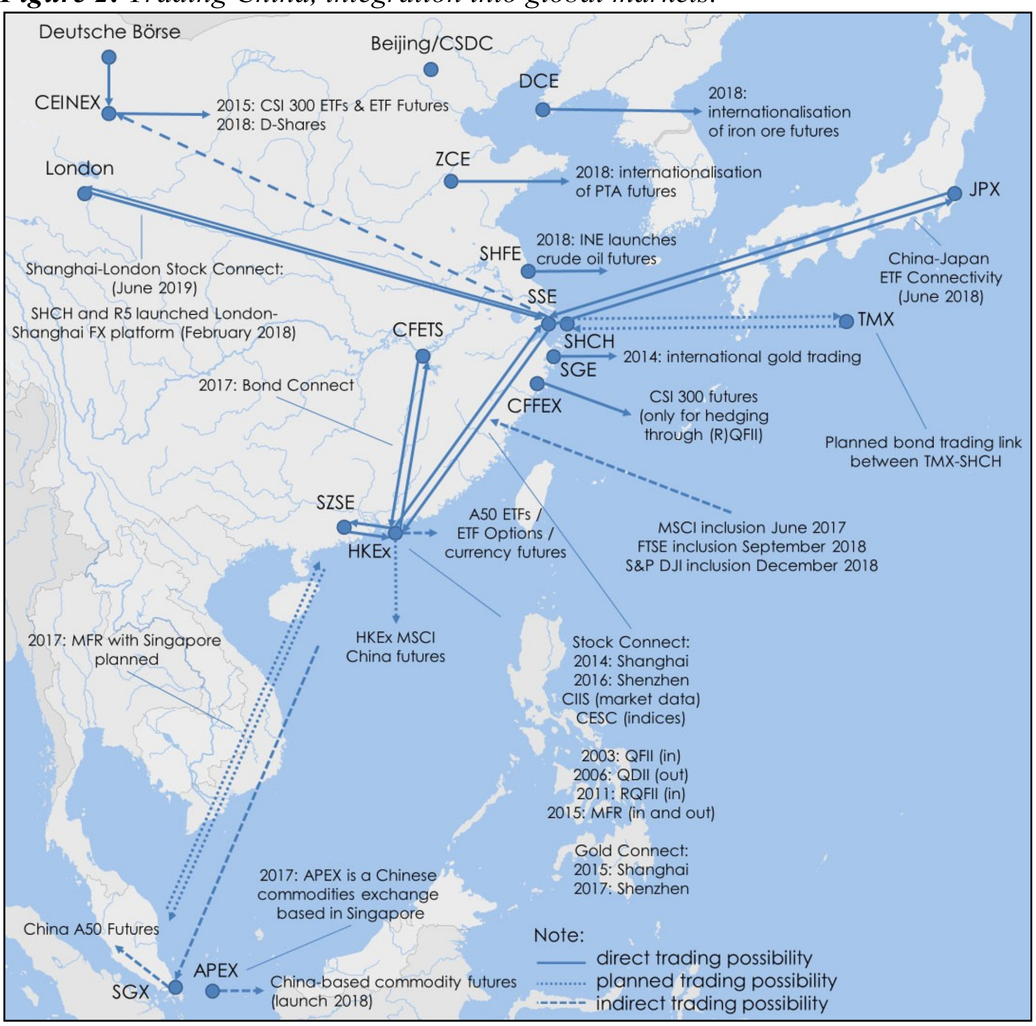
Second, the standards for such investment restrictions should be transparent and should be applied consistently across countries. If these restrictions are only created to harm Chinese companies/capital markets, the US risks violating the very principles that underpin liberal capital markets which they have championed for decades. Markets can be liberal but regulated according to certain normative considerations that are applied universally, but they quickly become illiberal and politicized when targeting one specific country. Rather than a short-sighted ban of Chinese companies based on narrow political considerations, the long-term effects of such restrictions on the US-led global economic order should also be considered.

Figure 1: *China's portfolio investment net inflows, 1981-2019.*



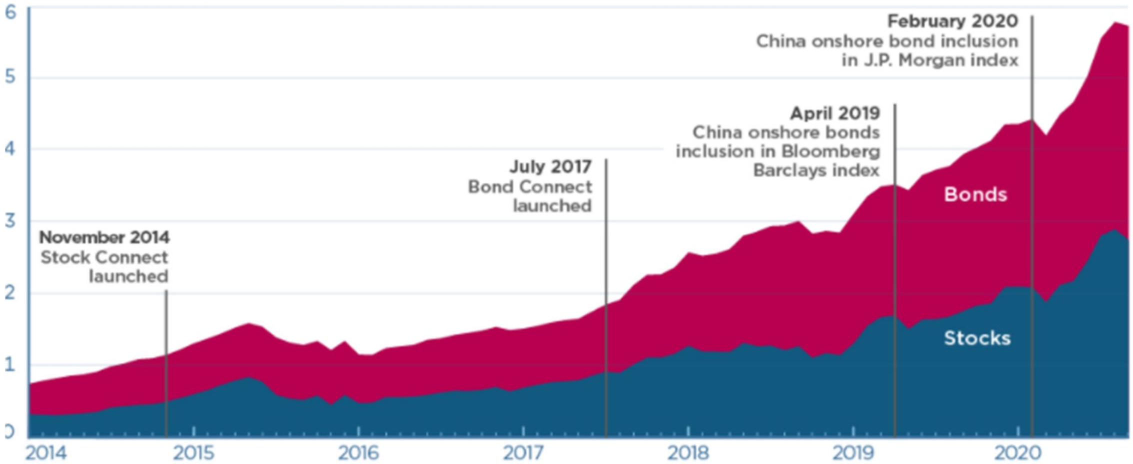
Source: https://journals.sagepub.com/doi/10.1177/1024529420964723.

Figure 2: *Trading China, integration into global markets.*



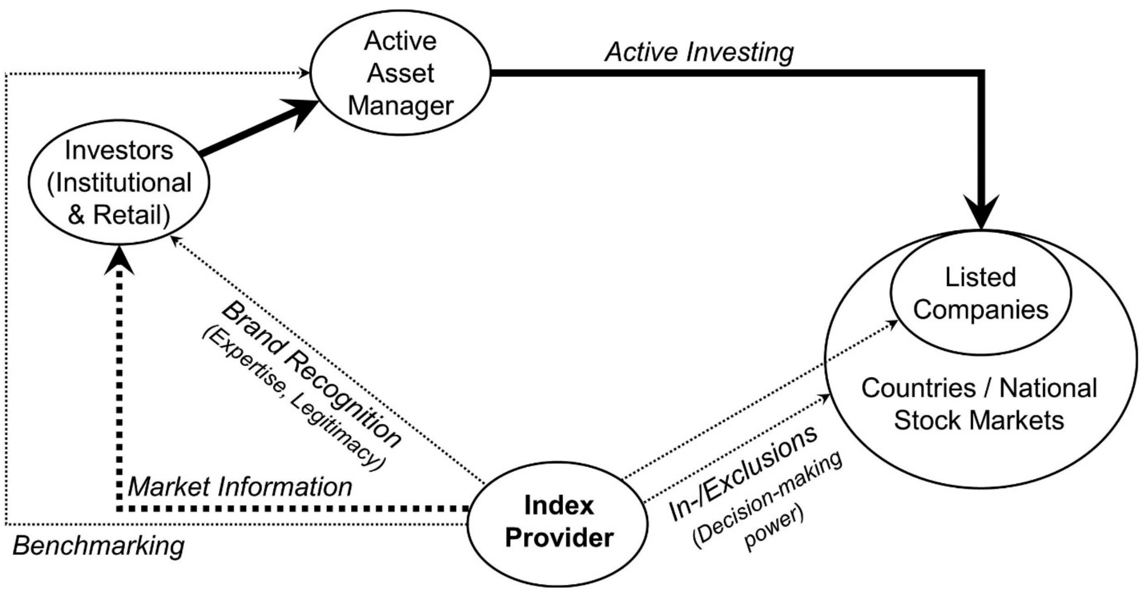
Source: https://journals.sagepub.com/doi/10.1177/1024529420964723.

***Figure** 3: Foreign onshore portfolio investment in China (in trillion RMB).*



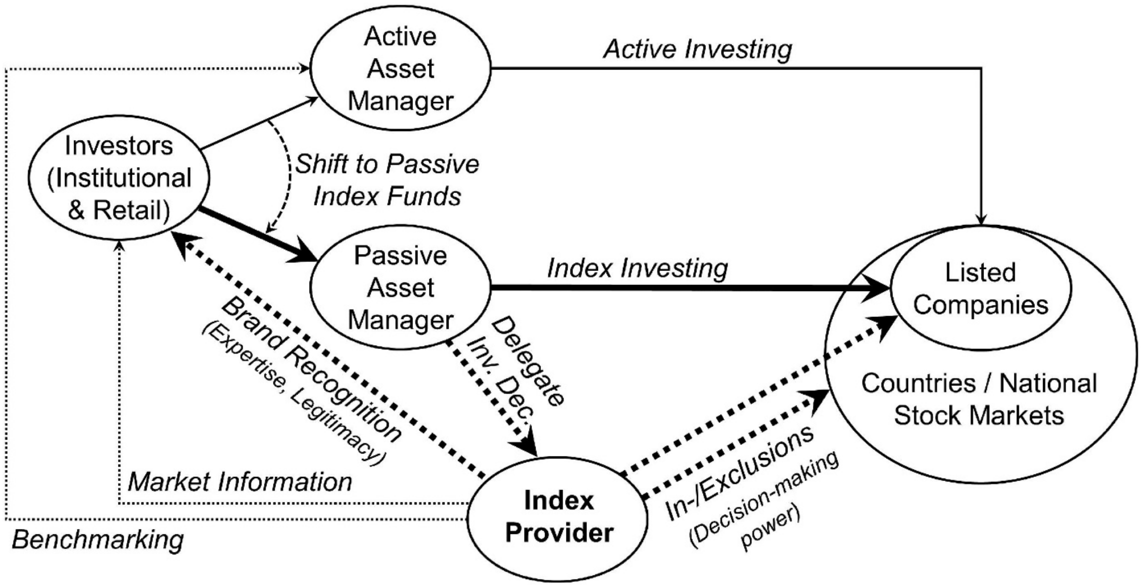
Source: *https://www.piie.com/research/piie-charts/rising-foreign-investment-chinas-onshore-stocks-and-bonds-shows-accelerating*.

***Figure 4:** The role of index providers before the shift to passive investing.*



Source: *https://www.tandfonline.com/doi/full/10.1080/09692290.2019.1699147*.

Figure 5: *The role of index providers after the shift to passive investing.*



Source: [*https://www.tandfonline.com/doi/full/10.1080/09692290.2019.1699147*](https://www.tandfonline.com/doi/full/10.1080/09692290.2019.1699147).

OPENING STATEMENT OF TERESA KONG, PORTFOLIO MANAGER, MATTHEWS ASIA

COMMISSIONER BOROCHOFF: Thank you very, very much.

Next we'll hear from Ms. Teresa Kong.

Ms. Kong, can you hear me?

MS. KONG: Yes.

COMMISSIONER BOROCHOFF: Go ahead.

MS. KONG: Commissioners, thank you for the opportunity to speak to you. My testimony today is based on over 25 years of working in the debt capital markets advising international sovereigns and companies on how to borrow as well as investing in these markets on behalf of global investors.

Currently, I'm portfolio manager and Head of Fixed Income at Matthews Asia, the largest dedicated Asian manager in North Manager, with about 30 billion in assets. We take a long-term investment horizon of at least three, and many times much, much longer periods of time in these assets. So, you're hearing directly from the bond girl.

I would like to address three key questions: the why, the how, and the implications of U.S. investments in China.

First, what are the motivations? The key motivation behind U.S. investments, just like in most other places, is indeed return. However, returns always come with risks and uncertainties. And the major dimension of risk for most Americans investing in bonds abroad are credit, currencies, and interest rates with the biggest risk in investing in Chinese corporates being the credit component.

While the overall default rate in China is rising it is still very low relative to international markets. By our estimates, the default rate for 2020 stood at around one percent compared to six percent of U.S. high yield. Over time, though, I want to highlight the fact that we do expect default rates in China to go up, and this is due to structural forces that have kept default rates low. So, for example, state support is one very important factor.

It is however really important to remember that defaults are a necessary evil in well-functioning developed markets. By allowing poorly managed companies or ones with unsustainable capital structures to default, the Chinese government is preventing moral hazard, thus enforcing good governance and fiscal discipline.

I would be remiss to not address a very key question that I often get asked. Can we even trust the numbers? I want to highlight that much of the differences between U.S. and China has to do with three key factors: One is accounting, two is the bankruptcy code, and three is governance.

So first a word on accounting. Something as simple as cash. What is it, where does it fit, and how can I get my hands on it, are very different in the U.S. versus China. And that's because U.S. follows U.S. GAAP and China follows China GAAP and there are many differences in terms of what is considered cash in China versus what's considered cash in the U.S. So many of these misunderstandings could be attributed to one, accounting.

The second is the bankruptcy code. There is so much that we don't understand about the China bankruptcy code, and so as a portfolio manager, what I do is I steer clear of any companies that have even any probability of default. So, we tend to invest in very high-quality companies in China precisely because we know what we don't know.

And the third key thing is governance. Corporate governance is something that we spend a lot of time as portfolio managers and analysts really trying to understand by looking at historical behavior of the management team, looking at their alignment of interests.

So, just to state something quite obvious, I have never met a CEO who's paid in his own company's bonds, right? Every CEO is paid in some form of cash, or maybe equity. So, as a bond holder my interest may not necessarily be aligned with that of the key executive. And we all know from business school that you can actually increase a rate of return on your equity quite easily by increasing your leverage. And so understanding corporate governance is another key, and the key questions in China may oftentimes be different than those being asked in the United States because there are additional dimensions on where those interests lie.

So, with that I want to move on to the second key question, which is how do Americans invest in China? First there's the external bond market. So, when I say external, I mean the offshore bond market. And the total notional outstanding by Chinese corporates in offshore market currently is about 600 billion. That's about two-fifths the size of the U.S. high yield market.

Typically, investors have some exposure to this market through a global credit or emerging market bond fund. These bonds are held by retail investors via these bond funds and we typically hold them through a Euroclear account and it follows typically U.S. law or U.K. law, so some type of international law.

The reality though is that we do have to be very mindful that the jurisdictional purview can extend from U.S. all the way to the Virgin Islands and local Chinese laws because these assets sit in China and are often governed by the actual issuer's domicile, which can often be offshore places like the U.S. Virgin Islands or the Cayman Islands.

The second key market that we could be exposed to is the China local or onshore bond market. The China onshore bond market is actually the second largest in the world already, with about 15 trillion U.S. dollar equivalent notional outstanding, which makes it about a third of the size of the U.S. bond market.

Ownership by international investors is still very low, around three percent of the overall China bond market, and the number is slightly higher for government bonds at around nine percent. Ownership has been low because the Chinese government has historically limited market access to foreigners, but as the access has opened up and as global bond indices have added China to their indices, we expect these numbers to go up. So just a 6 to 10 percent allocation by international investors would translate into about -- let's call it, round numbers, 400 billion of additional inflows into China.

But currently the overwhelming majority of U.S. investors do not have any exposure to onshore China bonds, neither government nor corporates, and no major international bond indices have begun to consider Chinese corporate bonds for inclusion yet. If we were to hold these bonds, we do hold them typically through a local custody account subject to Chinese law.

Lastly, I want to address the implications of U.S. investments in China. Going down the path of sanctions and prohibitions alone can be counterproductive, including the use of executive orders such as the ones that were announced in the last quarter of 2020 targeting U.S. investments in Chinese military companies. In my opinion, prohibiting U.S. persons from investing in public securities of loosely-defined CCMCs can be harmful to U.S. investors.

Entities that are directly responsible -- so, I'm just going to call these directly responsible entities going forward -- for producing military equipment for the military, for example, are typically not publicly listed. They are usually held -- they're usually a subsidiary of a major company and a lot of times they are an arm of a state-owned enterprise.

An analogous example would be to limit any U.S. person from investing in GE because GE Aviation produces goods for the U.S. military. Here, the directly responsible entity is GE Aviation which does not have any publicly traded securities. So, by instituting a general prohibition on investments in GE, the policy makers are actually preventing investors from investing in potentially a really great company.

But if the U.S. Government officials think that it is absolutely necessary to impose sanctions or prohibitions, then targeting specific commercial transactions between U.S. persons and directly responsible entities might be a more effective measure.

To conclude, I believe U.S. policies towards China have to be grounded in engagement and multilateralism. It lies in being more invested in China so that we can influence with a carrot instead of a stick. It likes in liaising with our allies with similar values to find common ground and pursue common policy goals.

Finally, I do want to take this opportunity to highlight that words have consequences, especially words used by our leaders about China. I woke up to these consequences Wednesday morning learning yet again of another act of violence, this time by a gunman killing eight people in Atlanta, six of whom are women of Asian descent.

As President Biden noted in January, xenophobic comments by political leaders, including references to COVID-19 as the China virus, have stoked fears, harassment and hate crimes against innocent and loyal Americans of Asian descent.

The Commission and Congress can contribute to solutions by holding our leaders accountable, accountable for their words, accountable for their actions, and accountable to implementing laws protecting all Americans regardless of race, ethnicity or country of origin. Thank you.

PREPARED STATEMENT OF TERESA KONG, PORTFOLIO MANAGER, MATTHEWS ASIA

Testimony of Teresa Kong to the U.S.-China Economic and Security Review Commission Hearing on ***"U.S. Investment in China's Capital Markets and Military-Industrial Complex"***

Thank you for the opportunity to appear before the Commission today.

My testimony today is based on over 25 years of working in the debt capital markets, advising international sovereigns and companies on how to borrow, as well as investing in these markets on behalf of global investors. It is structured to address three key questions: What are the motivations and risks for a U.S. investor investing in the China bond market? How does a U.S. investor invest in the China bond market? And finally, what are the implications of these U.S. investments in China?

I. Motivations Behind U.S. Investments in China Bond Market

The primary components of return and risk for Chinese debt are interest rates, currency, and credit. First, in terms of government credit, China has an A1/A+/A+ rating from the three major international rating agencies. Second, interest rates in China have more room to fall than to rise as inflation remains subdued. Finally, the Chinese renminbi (RMB) might continue on its appreciation path relative to the U.S. dollar. As an example, if we start with a yield of 3%-4% for a China government bond, add potential 1%-2% appreciation and 1% for credit spread for an investment grade corporate, that could potentially mean 5% -7% total return for a U.S. dollar-based investor.[1]

However, returns come with risks. The RMB can depreciate and interest rates can rise, eroding returns. The biggest risk in investing in Chinese corporates is credit—what is the probability of default? While the overall default rate in China is rising, it is still low relative to other markets and it is likely to remain in the in low single digits given China's remarkable COVID-19 recovery and its economy is healthy. By our estimates, the default rate for 2020 stood at ~0.8%. The U.S. high yield default rate, for comparison, is around 6% on a 12-months trailing basis.[2]

In our view, the relatively low default rate can be attributed to the following reasons:

- Companies who issue bonds in China tend to be the best in their respective industries and are not representative of the entire Chinese economy. Hence, there is a sampling bias.

[1] Source: Bloomberg. As of March 11, 2021 a 10 year US Treasury bond, denominated in USD, currently yields ~1.5% while a China Government bond, denominated in CNY, currently yields ~3.2%.

[2] Source: BOFA, Data as of February 28, 2021

- The large presence of State Owned Enterprises (SOEs), which enjoy relatively easy access to liquidity. The bond market is usually just one of the many channels of financing the SOEs have access to, reducing the likelihood of default.
- Government support of key sectors such as banking, resulting in very low default rate of Chinese banks.

Over time, we expect some of the structural forces like government support of certain sectors or companies to diminish, paving the way for default rate to gradually increase.

Defaults are indeed a necessary evil. They are signs of a maturing capital market where participants have to be sophisticated analysts of credit risks to generate superior returns. Investors can no longer just rubber stamp an investment because it has a guarantee or a keepwell agreement from a state owned enterprise—even for companies of strategic importance.

The recent defaulted companies share commonalities of weak corporate governance, poor financial performance and a track record of making questionable investments. By allowing poorly managed companies or ones with unsustainable capital structures to default, the Chinese government is preventing moral hazard and enforcing good governance and fiscal discipline. This has been a consistent goal of Chinese policymakers for over a decade.

Another question that often arises is whether U.S. investors can trust the local market credit ratings? Why are there so many domestic rated AAA companies?

The Chinese domestic ratings are derived from historical domestic default data. International ratings are derived from a substantially longer data set, over multiple credit cycles across a broad set of countries and industries. Thus, the resulting ratings are different. Since default rates have been low in China for the reasons discussed, most companies get an AA or above domestic rating.

With international rating agencies now able to enter and compete in the domestic market, we expect greater transparency into the credit worthiness of Chinese companies. Over time, we expect domestic ratings to gradually be calibrated closer to an international rating scale with longer histories for companies with similar credit metrics.

II. How Does a U.S. Investor Access the China Bond Market?

The "External" or "Offshore" bond market

Of these three key dimensions of credit, currency, and risks, if I want to take on only the credit risk of a corporate, I can buy a USD-denominated bond issued by a corporate. This is known as an "external" or "offshore" bond. Offshore bonds are custodied in an international clearing house like Euroclear, issued under foreign laws (e.g. English or New York law)[3], traded over-the-counter by international and domestic broker dealers, and are primarily held by global institutional investors.

The total notional debt issued by Chinese corporates in the offshore market is approximately US$611 billion, or approximately two-fifth of the U.S. high yield market.[4] U.S. investors typically have some exposure to this offshore market if they own a global or emerging market bond mutual fund or ETF.

The China "Local" or "Onshore" bond market

To gain exposure to all three dimensions of credit, currency, and interest rates, one could invest in China's "local" or "onshore" bond market. Onshore bonds are held in local custody in a domestic Chinese bank, are issued under Chinese law, traded mostly by domestic broker-dealers and are primarily held by Chinese institutional investors.

China's onshore bond market is currently the second largest in the world with approximately RMB 100 trillion notional outstanding (~US$ 15 trillion notional outstanding).[5] It is about 35% of the size of the U.S. bond market, which continues to be the largest bond market globally.[6]

Ownership by international investors is still relatively low, around 3% percent of the overall China bond market, and around 9% percent for government bonds. Ownership has been historically low because of limited market access. But as the Chinese government has liberalized access, the global bond indices have begun to include China bonds into their indices. As we speak, China is about 6% of the Bloomberg Barclays Global Aggregate Index. It is 10% of the JP Morgan Global Bond Index (GBI-EM). Finally, it is slated to be included in the FTSE Russell Global Bond Index in October 2021. As a result, we would expect international investor ownership of Chinese bonds to rise in the coming years.

Based on our estimates, assets benchmarked to just these three indices alone total about US$4 - 5 trillion. Thus, even a 6% - 10% inclusion over the next couple of years could amount to approximately US$200 - 400 billion of additional global inflows.

[3] Source: Bond Prospectus
[4] Sources: JPM Asia Credit Index (JACI), BAML US HY Master Index; Data as of February 28, 2021
[5] Source: AsiaBondOnline; Data as of December 2020
[6] Source: SIFMA 2020 Capital Markets Fact Book; Data as of December 2019

The initial foray by international investors into onshore China bond market has largely been in government bonds. This is because the government bond market is large (representing about one-third of the total bond market), liquid, and can fit neatly into the responsibilities of an existing sovereign analyst. Investment in onshore corporates has been more limited due to the infrastructure demands inherent in investing in corporates—researching, trading, managing, and monitoring of hundreds of distinct companies. Furthermore, corporate bonds are typically less liquid and have shorter maturities of three years or less. Other than specialists like Matthews Asia and the largest dozen or so U.S. asset managers, most investor firms cannot afford the human and capital investments necessary to have credible investment capability in this nascent market. Hence, most retail U.S. investors have zero exposure to the domestic onshore China corporate bond market.

III. Implications of U.S. Investments in China

As a portfolio manager, it is my fiduciary duty to invest prudently to maximize returns while minimizing risks. Investing responsibly is one way to minimize risks. We do this via active engagement of our portfolio companies to assess their environment, social and governance (ESG) track record.

To provide one example, we are invested in a global ports operator with a mixed track record on labor relations and worker safety. When we brought up the issue of employee treatment several years ago, company management was defensive. Any criticism was brushed off as incomplete and biased media coverage. Reports of union busting at some of the company's ports were said to have mischaracterized its actions, and that worker fatalities like when a container fell and crushed a truck were a one-off. As we and other investors continued to bring up the same topic year after year, the company shifted its stance. They acknowledged that they are new to the journey of ESG, but have been working to steadily collect data and improve disclosure on a port-by-port basis. Once they hone their ability to track and measure relevant environmental and social metrics, they intend to turn them into real policies that positively impact their employees on the job. This company has slowly begun to see strength in ESG as an investment that will generate a return, rather than a cost.

This leads me to my belief that U.S. policy towards China has to be grounded in the principles of engagement and multilateralism. As more global investors with shared values invest more in China, we can incentivize them to adopt good policies and behaviors. Similarly, as Chinese companies rely more deeply on the global capital markets, they have more skin in the game.

The second tenet of multilateralism is driven by necessity. My lonely voice as one institutional investor would be unlikely to impact the labor practice of any company. However, when a chorus of investors sing the same tune, we can influence with a carrot instead of a stick. China is already too big for any one country acting alone to have material impact. Unilateralism, absent coordination with our allies, could be counterproductive to our policy goals. It might end up putting U.S. investors at a disadvantage by limiting our opportunities in the global capital markets or even lead to losses to investor portfolios.

Going down the path of sanctions and prohibitions alone can be counterproductive—including the executive orders (EOs) announced in the last quarter of 2020 targeting U.S. investments in Communist Chinese Military Companies (CCMCs). Since "U.S. persons" is a broad term that could include any U.S. person in facilitating a transaction, several broker dealers took the safest route and stopped making markets altogether while waiting for further clarification, resulting in mark-to-market losses.

In my professional opinion, prohibiting "U.S. persons" from being able to invest in "public securities"[7] of loosely defined CCMCs is detrimental to U.S. investors. It hampers asset managers from fulfilling fiduciary duties to the best of their abilities. Entities that are directly responsible (DRE, Directly Responsible Entity) for producing military equipment for the PLA (People's Liberation Army) are often not listed and do not have any publicly traded securities. These characteristics of DREs make sanctions on "public securities" less than effective, rendering the policy ineffective in achieving its objective of limiting capital to Chinese military companies. An analogous hypothetical example would be to limit any "U.S. persons" from being able to invest in General Electric (GE) because GE Aviation produces goods for the U.S. military.[8] Here, the DRE is GE Aviation but GE Aviation does not have any publicly traded equity or bond securities[9]. By instituting a general prohibition on investments in General Electric, the policy prevents investors from being able to invest in a great company like GE. Even more importantly, it does not achieve the policy objective of prohibiting development of GE Aviation or related military technologies. If the U.S. deems that it is absolutely necessary to impose sanctions or prohibitions, then targeting specific commercial transactions between "U.S. persons" and DREs might be a more effective way to achieve its policy objective.

To conclude, I believe U.S. policy towards China has to be grounded in engagement and multilateralism. It lies in being more deeply invested in China so that we can influence with a carrot instead of stick. It lies in liaising with our allies with similar values to find common ground and pursue common policy goals. We change people through conversation, not censorship. We change policy through engagement, not sanctions. I trust that the Commission can help the

[7] Source: Executive Order 13959
[8] Source: GE Aviation
[9] Source: Bloomberg

Congress and the President to work with our allies towards constructive engagement with China.

Teresa Kong, CFA
Portfolio Manager
Matthews Asia

OPENING STATEMENT OF ADAM LYSENKO, STRIDER TECHNOLOGIES

COMMISSIONER BOROCHOFF: Ms. Kong, thank you very, very much for your testimony.

And now we will hear from Mr. Adam Lysenko.

MR. LYSENKO: Good morning, everyone. I'm grateful to the Commission for the invitation to share my views on U.S. investment in China's venture capital and private equity markets.

I want to take a -- to make a few remarks on China's private equity ecosystem, its relationship with China's technology acquisition efforts, and implications for U.S. policy, beginning with background on China's private equity ecosystem.

Where does China fit into the global venture capital and private equity spheres? China is now home to a significant total of global PE investment each year. In 2020, more than 20 percent of global VC investment dollars funded start-ups in China, and about six percent of announced non-venture PE deals by investment value involved target companies in China. China's position as a magnet for VC investment is particularly striking given that only a few percent of total global venture capital dollars flowed to Chinese start-ups before 2010.

What role does foreign capital play in China's VC and PE markets? In 2020, 54 percent of all VC transactions in China measured by total invested capital included at least one offshore investor, with the U.S. participation rate at 29 percent. These totals exclude U.S. and other foreign limited partner investment or VC funds managed by general partners from China which have directed billions of additional dollars of foreign capital to Chinese start-ups over the last two decades as well.

By total announced investment, foreign non-venture capital PE investors matched or narrowly outspent their onshore Chinese counterparts in each of the last two years, making foreign investors relatively more heavyweight players in China's non-venture capital PE ecosystem.

In terms of relation to China's technology acquisition efforts, where does foreign VC investment fit into China's technology acquisition plans? Under the leadership of Xi Jinping, China has accelerated an unprecedented whole-of-society effort to advance its strategic technological capabilities and leapfrog over established dominant players at the edge of the global innovation frontier.

China's multifaceted technology transfer strategy includes fostering foreign inbound venture capital investment as one of numerous elements. This alone is worthy of policy consideration, regardless of whether a careful weighing of benefits and risks finds that there are indeed unacceptable costs to foreign participation in China's PE ecosystem, and particularly to foreign investment in Chinese technology firms.

How do Chinese start-ups rely on foreign engineering and entrepreneurial talent? The most important reliance China's start-ups have on foreign talent is their dependence on Chinese entrepreneurs and engineers who have studied abroad or worked for foreign firms before returning to China. By the end of 2019, 4.2 million out of 4.9 million Chinese nationals, or 86 percent, had gone home after completing studies abroad, giving China an infusion of nearly 4 million new workers with overseas training or experience from 2009 to 2019. And external survey data indicate close to an additional 1 million Chinese nationals returned home in 2020 thanks to travel restrictions tied to the COVID-19 pandemic as well as more onerous immigration and visa policies in places like the United States.

Another important foreign cohort supporting China's technology start-ups consists of foreign engineers at research and development centers in international technology clusters found in the United States and other developed economies.

Finally, touching on U.S. policy implications. What role should U.S. government take? The U.S. government needs to lead out on crafting solutions to challenges presented by China's state-led, market-oriented overseas technology acquisition strategy. Free markets cannot address these challenges effectively on their own because China is using its influence to alter domestic and foreign economic actors' incentives within free markets to foster its own desired outcomes, often at the expense of U.S. and other foreign interests. U.S. economic actors are not fully internalizing the costs of their behaviors vis-á-vis China because they do not have to directly bear those costs.

Government can fill this leadership role in three important ways:

(1) Bring transparency and awareness to China's overseas economic statecraft ambitions and strategies. Government can help private market participants better price the risks of engaging with China across various economic conduits by tracking, understanding, and educating on China's evolving efforts to acquire foreign technologies and expertise. Even today there remains a worrying lack of understanding among many U.S. research institutions, multinational corporations, financial investors, and others about the scope and purposes of China's global technology acquisition strategy.

In order to accomplish this goal, government should consider forming a central body in charge of in charge of understanding and monitoring China's technology acquisition efforts, providing better tools for government to collect relevant information, and giving itself more authority to proactively warn private market players of specific risks.

(2) Counter the distorted economic incentives China has introduced into international markets with appropriate policy. Understanding and informing private market actors about China's technology acquisition strategies will not be enough alone. Absent any regulatory or economic consequences, U.S. and other foreign players will still make decisions that harm long-term U.S. interests in exchange for short-term economic gains.

As it contemplates policy and regulatory solutions, the U.S. Government should prioritize its efforts based on China's evolving strategies and observed real world behaviors and should pursue steps that are targeted and precise instead of blunt and unnecessarily self-harming. This is not to say that the scope of any solution will necessarily be small; the threat China poses to U.S. interests through its technology acquisition programs is measured in the trillions of dollars in terms of both resources committed by China and potential costs to the United States.

In order to accomplish this goal government should consider identifying and implementing needed policy fixes to counter risks tied to U.S. investment in China and proactively identifying and engaging in other areas where policy or regulatory attention is needed, including in some areas where U.S. lawmakers have already implemented recent policy changes such as investment screening.

(3) Adopt policies to promote innovation and keep the United States the world's leading technological power. The United States owes its current position at the pinnacle of the global technology ladder to a social and economic environment that has been highly conducive to innovation over many decades. As the United States considers policy responses to China's efforts to acquire foreign technological expertise, we should remember that no amount of preventative actions to keep technology transfer at bay can maintain the United States at the forefront of the global technological frontier if the United States loses its position as the most

attractive destination for innovators from around the world, including from China.

An ample body of academic literature exists illuminating the kinds of support needed to maintain a competitive innovation ecosystem, from public funding and tax credits to building human capital through progressive immigration rules and a focus on STEM educational capacities. China is competing with the United States to become a center of global innovation and the United States must outcompete in these realms if it is to maintain its long-term technological edge.

Thank you. And I look forward to answering your questions.

PREPARED STATEMENT OF ADAM LYSENKO, STRIDER TECHNOLOGIES

March 19, 2021

Adam Lysenko
Testimony before the U.S.-China Economic and Security Review Commission

Hearing on U.S. Investment in China's Capital Markets and Military-Industrial Complex
Panel II: U.S. Investment in China's Stock, Debt, and Venture Capital and Private Equity Markets

The views expressed in this testimony are the author's alone and do not represent those of any of the organizations with which the author is, or has been, affiliated.

Executive Summary

Background on China's Private Equity Ecosystem

- Thanks to the rapid expansion of venture capital and other private equity investment in China during the last decade, China is now home to a significant total of global private equity investment each year. In 2020, more than 20% of global venture capital investment dollars funded startups in China, and about 6% of announced non-venture capital PE deals by investment value involved target companies in China. China's position as a magnet for venture capital investment is particularly striking given that only a few percent of total global venture capital dollars flowed to Chinese startups before 2010.

- In 2020, 54% of all venture capital transactions measured by total invested capital included at least one offshore investor, with the US participation rate at 29%. These totals exclude US and other foreign limited partner investment through VC funds managed by general partners from China, which have directed billions of additional dollars of foreign capital to Chinese startups over the last two decades as well. By total announced investment, foreign non-venture capital PE investors matched or narrowly outspent their onshore Chinese counterparts in each of the last two years, making foreign investors relatively more heavyweight players in China's non-venture capital private equity ecosystem.

- The mix of foreign private equity investors in China has historically been dominated by professional private equity fund managers reliant on capital from passive third-party institutional, high-net-worth, and other investors like life insurers, pension funds, and family offices. By total investment value, professionally managed foreign PE funds participated in 92% of all venture capital and 82% of all private equity transactions in China involving foreign investors in 2020. Corporations are the second-most common foreign investor type in China's private equity space. In 2020 these entities took part in 15% of Chinese venture capital transactions and 34% of other Chinese private equity transactions with foreign participants by total investment value. Corporate private equity investors have a more complex set of strategic investment drivers.

Relation to China's Technology Acquisition Efforts

- Under the leadership of Xi Jinping, China has accelerated an unprecedented whole-of-society effort to advance its strategic technological capabilities and leapfrog over established dominant players at the edge of the global innovation frontier. China's multifaceted technology transfer strategy includes fostering foreign inbound venture capital investment as one of numerous elements. This alone is worthy of policy consideration, regardless of whether a careful weighing of benefits and risks finds that there are unacceptable costs to foreign participation in China's private equity ecosystem and particularly to foreign investment in Chinese technology firms.

- The most important reliance China's startups have on foreign talent is their dependence on Chinese entrepreneurs and engineers who have studied abroad or worked for foreign firms before returning to China. By the end of 2019, 4.2 million out of 4.9 million Chinese nationals (86%) had gone home after completing studies abroad, giving China an infusion of nearly 4 million new workers with overseas training or experience from 2009 to 2019. And external survey data indicate close to an additional 1 million Chinese nationals returned home in 2020 thanks to travel restrictions tied to the COVID-19 pandemic as well as more onerous immigration and visa policies in places like the United States.

- Another important foreign cohort supporting China's technology startups consists of foreign engineers at research and development centers in international technology clusters found in the United States and other developed economies. Chinese companies operating on the global frontiers of emerging technology areas are especially reliant on these overseas operations. For example, many of China's most ambitious autonomous driving technology companies have significant R&D presences in the United States with dozens or even hundreds of employees in Silicon Valley and other locations.

US Policy Implications

- The US government needs to lead out on crafting solutions to challenges presented by China's state-led, market-oriented overseas technology acquisition strategy. Free markets cannot address these challenges effectively on their own because China is using its influence to alter domestic and foreign economic actors' incentives within free markets to foster its own desired outcomes at the expense of US and other foreign interests. US economic actors are not fully internalizing the costs of their behaviors vis-à-vis China because they do not have to directly bear those costs.

- Government can fill this leadership role in three important ways:

  (1) Bring transparency and awareness to China's overseas economic statecraft ambitions and strategies. Government can help private market participants better price the risks of engaging with China across various economic conduits by tracking, understanding, and educating on China's evolving efforts to acquire foreign technologies and expertise. Even today, there remains a worrying lack of understanding among many US research institutions, multinational corporations, financial investors, and others about the scope and purpose of China's global technology acquisition strategy.

  (2) Counter the distorted economic incentives China has introduced into international markets with appropriate policy. Understanding and informing private market actors about China's technology acquisition strategies will not be enough alone – absent any regulatory or economic consequences, US and other foreign players will still make decisions that harm long-term US interests in exchange for short-term economic gains. As it contemplates policy and regulatory solutions, the US government should prioritize its efforts based on China's evolving strategies and observed real world behaviors and should pursue steps that are targeted and precise instead of blunt and unnecessarily self-harming. This is not to say that the scope of any solution will be small; the threat China poses to US interests through its technology acquisition programs is measured in the trillions of dollars in terms of both resources committed by China and potential costs to the United States.

(3) Adopt policies to promote innovation and keep the United States the world's leading technological power. The United States owes its current position at the pinnacle of the global technology ladder to a social and economic environment that has been highly conducive to innovation over many decades. As the United States considers policy responses to China's efforts to acquire foreign technological expertise, we should remember that no amount of preventative action to keep technology transfer at bay can maintain the United States at the forefront of the global technological frontier if the United States loses its position as the most attractive destination for innovators from around the world. An ample body of academic literature exists illuminating the kinds of support needed to maintain a competitive innovation ecosystem, from public funding and tax credits to building human capital through progressive immigration rules and a focus on STEM educational capacities. China is competing with the United States to become a center of global innovation, and the United States must outcompete in these realms if it is to maintain its long-term technological edge.

1. Describe the evolution of China's private equity and venture capital markets, including foreign participation therein.

Private equity (PE) investment, which includes venture capital (VC) investment in high-growth startups as a major subset, has a shorter history in China than it does in the United States and in many other advanced economies.[1] Before the 2000s, China lacked the policy environment and financial development needed to foster a large, thriving private equity ecosystem. Foreign financial investment inflows were also tightly restricted. Early foreign venture investments in Chinese firms such as Softbank's storied $20 million stake in Alibaba in early 2000 were carried out through investments in offshore holding companies instead of directly in mainland Chinese firms, circumventing prohibitive onshore regulatory structures.[2]

Beijing only started to formulate the basic regulatory frameworks necessary for direct onshore venture capital and other private equity investments in the early 2000s.[3] Substantial reforms in the following years paved the way for the maturation and expansion of China's private equity ecosystem for both domestic and foreign investors. For example, authorities legalized the limited partnership structure commonly used in the private equity space first for domestic investors and then for foreign investors in the mid- and late-2000s.[4,5] China also began implementing pilots of Qualified Foreign Limited Partners (QFLP) programs in 2010, providing additional ease in fund partnership establishment, operation and exit.[6]

Thanks to developments like these, private equity investment activity in China accelerated beginning in the late 2000s (Figure 1). At first, the most private equity investment dollars flowed through non-venture PE transactions with foreign investors. Notable examples included Temasek's $1.5 billion stake in Bank of China and Bank of America's $2.5 billion investment in China Construction Bank prior to the Chinese firms' IPOs in the mid-2000s. China's venture capital market took off thereafter in the late 2000s and 2010s. By 2016 there were more than $140 billion in annual venture capital and other private equity investments being announced in China each year. This activity peaked in 2018 with around 6,000 venture capital transactions and more than 200 other private equity deals worth nearly $230 billion.

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[1] This testimony relies heavily on the following report, which I draw from hereafter without additional specific attribution:

Lysenko, Adam, Thilo Hanemann, and Daniel Rosen, *Disruption: US-China Venture Capital in a New Era of Strategic Competition*, Rhodium Group, January 2020, available at: https://www.us-china-investment.org/research.

[2] Henny Sender and Connie LingStaff, "Softbank to Invest $20 Million In Hong Kong's Alibaba.com", Wall Street Journal, 18 January 2000, available at: https://www.wsj.com/articles/SB948202996877749173.

[3] For example, see: Ministry of Commerce, *Administrative Regulations on Foreign-Invested Venture Capital Enterprises* "外商投资创业投资企业管理规定", October 2002, available at: http://www.mofcom.gov.cn/article/swfg/swfgbl/201101/20110107348941.shtml.

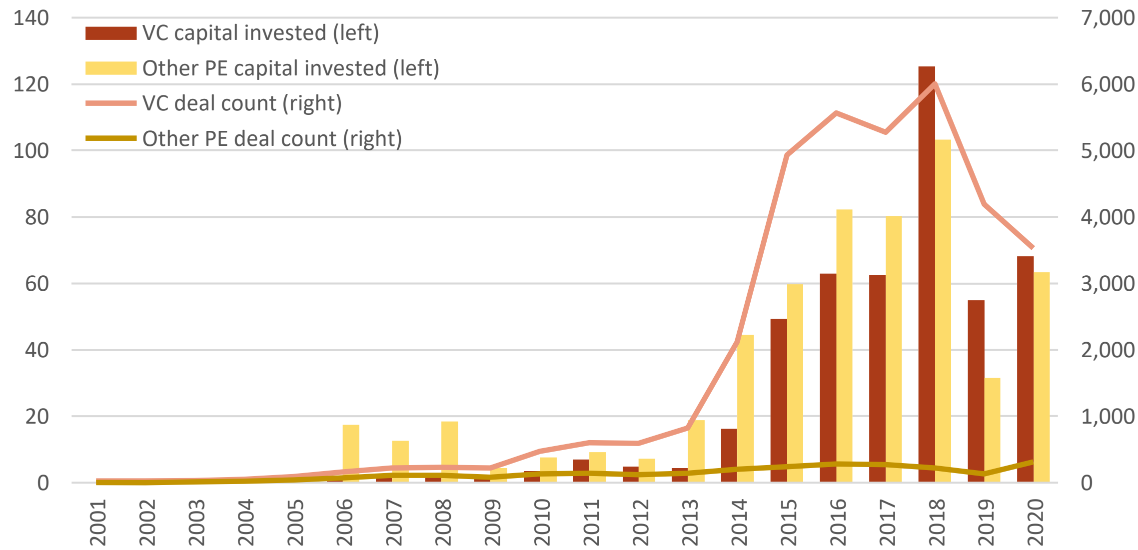
[4] Central People's Government of the PRC, *Partnership Law of the People's Republic of China* "中华人民共和国合伙企业法", August 2006, available at: http://www.gov.cn/flfg/2006-08/28/content_371399.htm.

[5] State Council, *Administrative Measures for the Establishment of Partnership Enterprises by Foreign Entities or Individuals in China* "外国企业或者个人在中国境内设立合伙企业管理办法", November 2009, available at: http://www.gov.cn/zwgk/2009-12/02/content_1478238.htm.

[6] Shanghai Municipal Government, *Shanghai Implementing Measures on the Launch of the Pilot Programme for Foreign-Invested Equity Investment Enterprises in Shanghai* "关于本市开展外商投资股权投资企业试点工作的实施办法", December 2010, available at: http://www.sficc.com/article.php?id=1338.

Beginning around mid-2018, frothiness in Chinese venture and technology markets and changing policy variables in China and abroad combined to steer private equity investment activity lower compared to the record highs in 2018. Fears about Chinese macroeconomic health and a growing consensus that many startups were pursuing unsustainable top line growth without viable routes to profitability led to a sharp contraction in venture fundraising. IPO valuations also came under pressure, with notable Chinese firms like Xiaomi seeing their market values fall after their public listings. These conditions eased in 2020, and private equity investment in China recovered somewhat following the 2019 declines back to levels typical between 2015 and 2017.

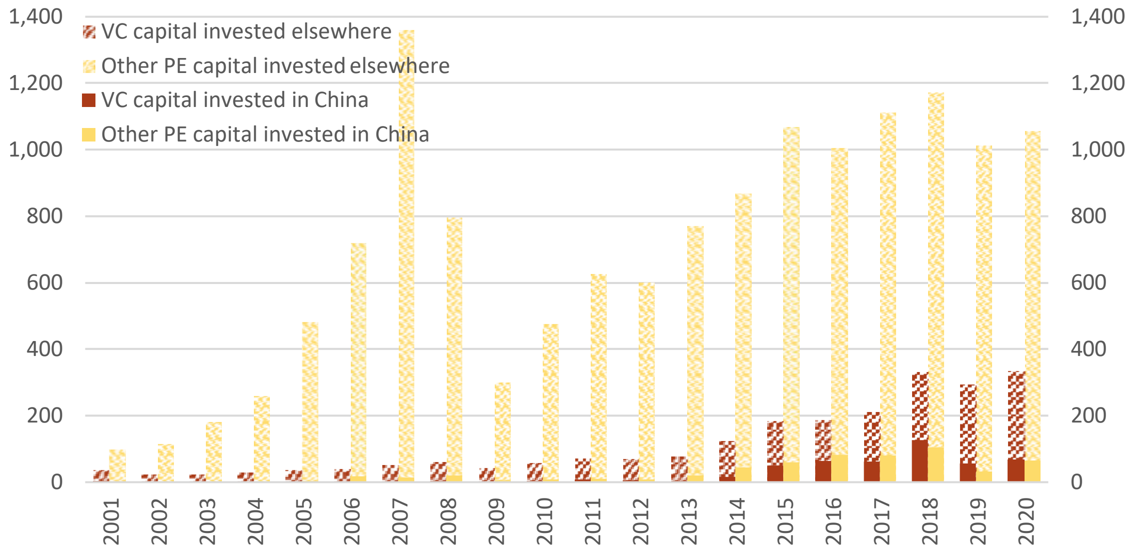
Figure 1: Announced Venture Capital and Other Private Equity Investment in China, 2001 – 2020
USD billions (left); Deal count (right)



Source: Pitchbook.

Thanks to the rapid expansion of venture capital and other private equity investment in China during the last decade, China is now home to a significant total of global private equity investment each year (Figure 2). In 2020, more than 20% of global venture capital investment dollars funded startups in China (down from a peak of almost 40% in 2018), and about 6% of globally announced non-venture capital PE deals by investment value involved target companies in China (down from a peak of almost 9% in 2018). China's position as a magnet for venture capital investment is particularly striking given that only a few percent of total global venture capital dollars targeted Chinese startups before 2010.

Figure 2: Announced Global Venture Capital and Other Private Equity Investment, 2001 – 2020
USD billions

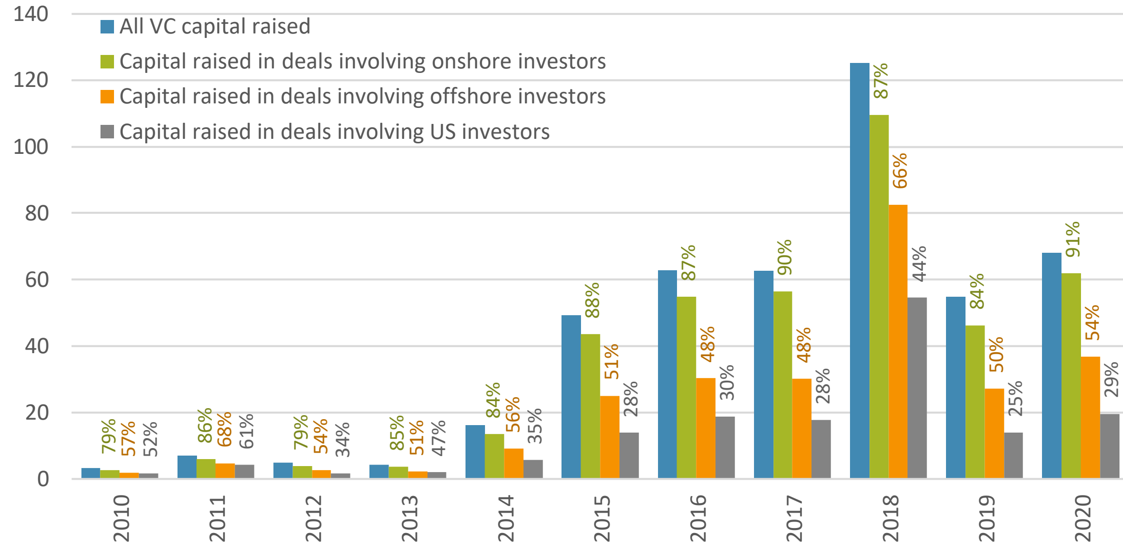


Source: Pitchbook.

Foreign investors have played an outsized role in the development of China's private equity and venture capital ecosystems from the earliest days. In the venture capital space, essentially all of China's leading first-wave technology firms like Alibaba, Tencent, and Baidu received financing from US and other foreign venture investors in the late 1990s and early 2000s. Foreign investors continued participating in many of the largest venture fundraising rounds for Chinese startups in the years that followed. In 2020, 54% of all transactions measured by total invested capital included at least one offshore investor, with the US participation rate at 29% (Figure 3). These totals exclude US and other foreign limited partner investment through VC funds managed by general partners from China such as Hillhouse Capital, Primavera Capital, and Hony Capital, which have directed billions of additional dollars of foreign capital to Chinese startups over the last two decades as well. By transaction counts, foreign participation in China's venture capital market has historically been a bit lower, reflecting foreign investors' tendency to participate in larger, higher-profile deals. In 2020, 16% of venture fundraising rounds for Chinese startups involved at least one foreign investor, and 8% included at least one investor from the United States.

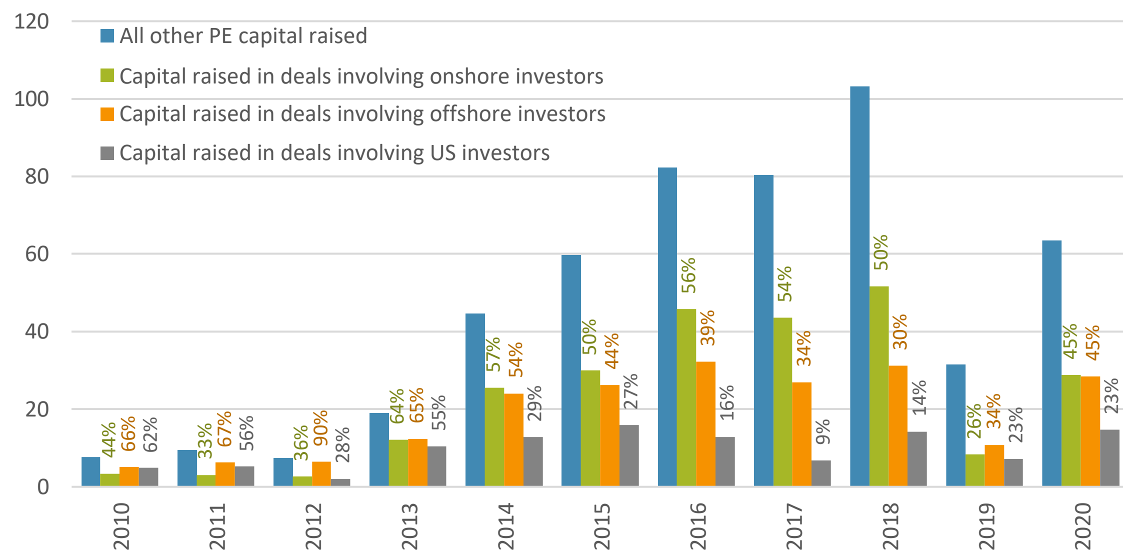
Foreign investors have also been important players in China's non-venture capital private equity market, although patterns of foreign and domestic participation and overlap differ somewhat from the venture capital space (Figure 4). In the venture capital realm, onshore investors have taken part in most deals in China over the last decade, with annual participation rates between 70% and 90% measured by either total investment value or by transaction count. In contrast, onshore investor participation rates for other private equity transactions have been closer to 50% in recent years, with foreign participation rates not far behind. By total announced investment, foreign non-venture capital PE investors even matched or narrowly outspent their onshore Chinese counterparts in each of the last two years, making foreign investors relatively more heavyweight players in China's non-venture capital private equity ecosystem. This is partly a result of how private equity transactions involving mature companies tend to include fewer investors in each transaction, which reduces onshore and offshore investor overlap. It also highlights the stunning speed at which China has been able to develop a deep bench of onshore venture capital investors with ample access to capital over the last decade.

Figure 3: Announced Venture Capital Investments in China by Investor Location, 2010 – 2020
USD billions



Source: Pitchbook. Figures may not sum to 100% due to multiple investors participating in the same transactions, missing data on investor locations, etc.

Figure 4: Announced Other Private Equity Investment in China by Investor Location, 2010 – 2020
USD billions



Source: Pitchbook. Figures may not sum to 100% due to multiple investors participating in the same transactions, missing data on investor locations, etc.

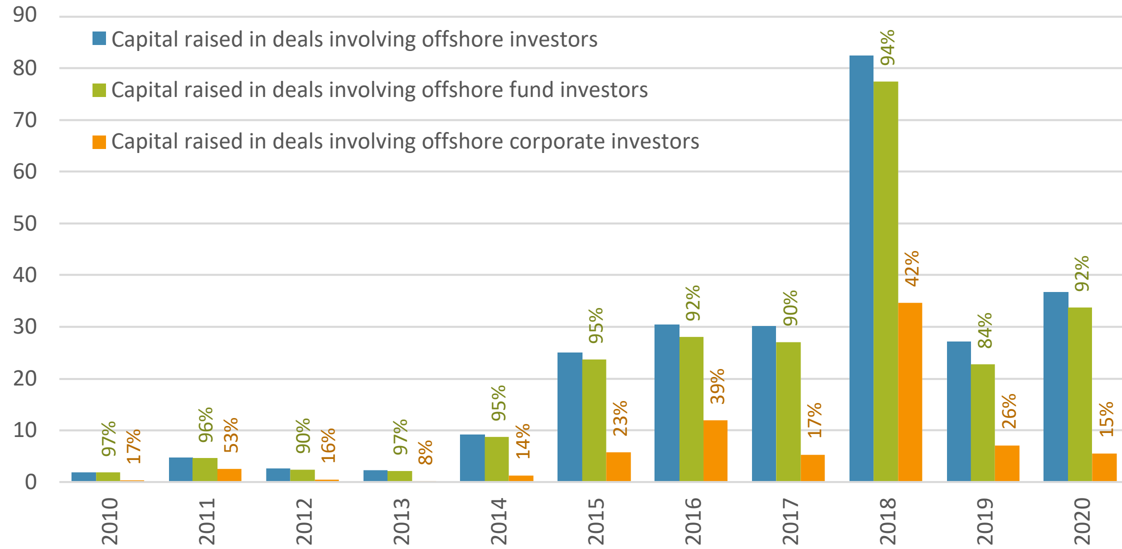
The mix of foreign private equity investors in China has historically been dominated by professional private equity fund managers reliant on capital from passive third-party institutional, high-net-worth, and other investors like life insurers, pension funds, and family offices. These investors generally structure their funds as tax-haven domiciled limited partnerships with the PE fund managers retaining discretion over capital deployment as general partners. Fund managers' primary goals are to increase their portfolio companies' value and generate financial returns for their limited partners, who in turn pay asset management and performance fees. As PE fund managers must compete to attract third-party capital, developing a strong track record of financial returns is the most important component of their long-term commercial viability and is the most prominent driver of investment decision-making.

Given these incentives, it is not surprising that foreign PE fund managers have found China to be such an exciting investment destination over the last two decades. The enviable performances of several of China's first- and second-wave tech startups like Alibaba, JD.com, and Xiaomi have served as a powerful draw for more recent investors seeking to replicate early successes, and PE fund managers have found many lucrative opportunities within China's burgeoning technology startup ecosystem tied to China's massive and growing web-connected population in the years since. Moreover, private equity investment in China has emerged as an important diversifying tool for US and other global investors seeking the benefits of imperfect correlation with other global asset classes and markets. By total investment value, professionally managed foreign PE funds participated in 92% of all venture capital and 82% of all private equity transactions in China involving foreign investors in 2020 (Figures 5 and 6). Examples of active foreign fund PE investors in China include Walden International, Kleiner Perkins, or Tiger Global Management in the venture capital space and Carlyle Group, Warburg Pincus, or Morgan Stanley in the non-venture capital private equity realm.

Corporations are the second-most common foreign investor type in China's private equity space. In 2020 these entities took part in 15% of Chinese venture capital transactions and 34% of other Chinese private equity transactions with foreign participants by total investment value. Corporate private equity investors have a more complex set of investment drivers compared to professional PE fund managers, which are usually overwhelmingly focused with financial performance. And while corporate PE investors are sensitive to financial losses, without third-party investors to compete for or a set timeframe for exiting investments they generally have more flexibility to explore commercial and strategic synergies with investment targets. For example, a foreign corporate venture investor might make strategic investments in Chinese startups developing new technologies or business models to bolster the investing corporation's competitive position in China and abroad or to support the development of future demand for the company's products. Examples of active foreign corporate PE investors in China include Intel Capital, Foxconn, or CyberAgent Capital in the venture capital space and Amgen or Danone in the non-venture capital private equity realm.

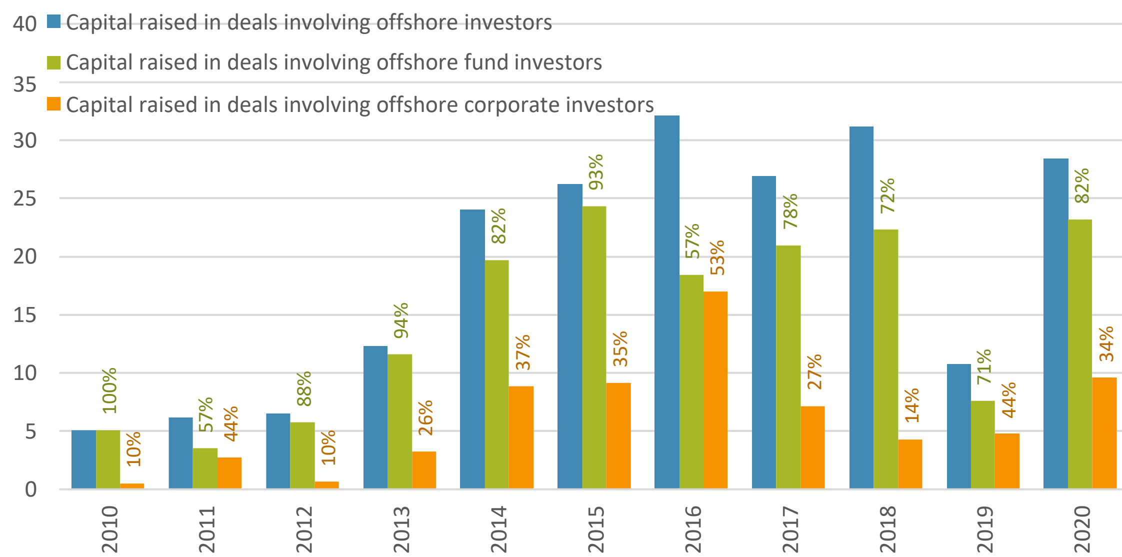
Compared to professional PE funds and corporate investors, other foreign investor types have generally played more marginal roles in China's private equity ecosystem. Examples include angels, accelerators, and other pre-early-stage investors; funds of funds; direct institutional investors; government-affiliated venture investors; and so on. Investment goals, niches, and time horizons vary by each of these players.

Figure 5: Announced Venture Capital Investment in China by Foreign Investor Type, 2010 – 2020
USD billions



Source: Pitchbook. Figures may not sum to 100% due to multiple investors participating in the same transactions, missing data on investor types, etc.

Figure 6: Announced Other Private Equity Investment in China by Foreign Investor Type, 2010 – 2020
USD billions



Source: Pitchbook. Figures may not sum to 100% due to multiple investors participating in the same transactions, missing data on investor types, etc.

1.1 Beyond capital, what do Chinese firms get from working with foreign investors?

Regardless of investor type or their underlying financial or strategic motives, most foreign PE investors take stakes in Chinese firms hoping that those companies will be commercially successful. Therefore, foreign PE investors have strong motivations to support their Chinese portfolio companies with resources other than just investment capital to maximize the likelihood of profitable investment exits and other outcomes including development of new technologies, business models, and future revenue streams. Therefore, virtually all private equity investors try to offer networking support to connect portfolio companies with prospective customers and employees, subject matter experts, potential follow-on investors, and any others who may be able to help the portfolio companies succeed. Investors may also offer support in helping Chinese startups access foreign end markets, for example by assisting them in navigating unfamiliar foreign legal and regulatory regimes. To the extent a foreign PE investor has in-house technical expertise or other unique resources (e.g. if the investor is a real-economy technology corporation), it may also directly offer technical support to portfolio companies to enable faster product or technology development and commercialization.

1.2 What is the government's footprint in directing capital flows and the investment agendain China's startup ecosystem?

The Chinese government directs investment flows to Chinese startups through industrial policy programs, by providing the promise of lucrative revenue opportunities via government procurement, and by controlling whether foreign entities may invest in specific industry and technology areas through the use of formal and informal market access restrictions.

Industrial Policy Programs

China regularly signals its state technology development priorities to private market participants via industrial policy pronouncements that include details on specific technologies of interest, development goals, commercialization timeframes, and so forth. Prominent examples from recent years include the *Guidelines to Promote National Integrated Circuit Industry* (National IC Plan) released in 2014 and the *Made in China 2025* domestic manufacturing development plan published in 2015. Industrial policy signaling pronouncements like these encourage startup formation among entrepreneurs who anticipate favorable regulatory treatment and other benefits for supporting China's strategic technology development ambitions. Both domestic and foreign investors may in turn anticipate brighter outlooks for Chinese startups in covered technology areas, directing capital to related firms in China.

The Chinese government also organizes deployment of vast capital troves to invest in priority technology areas in tandem with these industrial policy pronouncements. These state-directed venture capital investment funds undoubtedly impact the Chinese venture capital ecosystem and the behaviors of its domestic and foreign participants. Nominally, Chinese venture investment government guidance funds have raised astronomical sums to invest in Chinese technology startups – as of early 2020 Chinese officials had established more than 1,700 government guidance investment funds with a registered target size of 11 trillion RMB (1.55 trillion USD), although these funds had actually only raised less than $700 billion.[7] For context, in 2020 there were only about $130 billion in total venture capital and other private equity transactions announced in China, roughly a quarter of total capital reportedly raised by China's venture capital government guidance funds. Although actual capital deployment has likely been only a fraction of these totals, upward pressure on technology startup valuations and the existence of potential government buyers as exit counterparties have likely encouraged investment within areas of China's venture capital ecosystem where government funds have been active.

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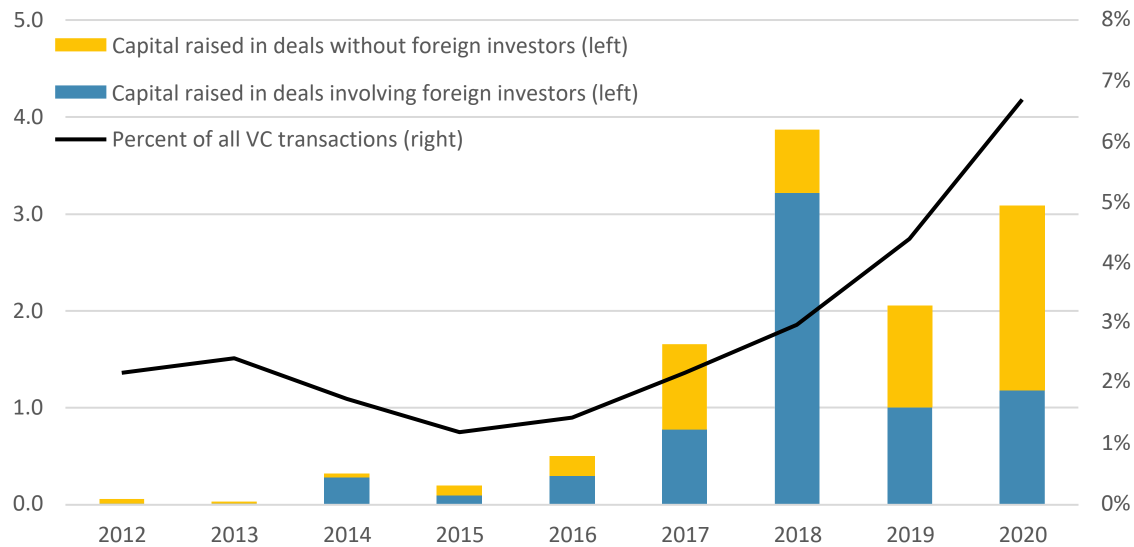
[7] Luong, Ngor, Zachary Arnold, and Ben Murphy, *Understanding Chinese Government Guidance Funds: An Analysis of Chinese-Language Sources*, Center for Strategic and Emerging Technology, March 2021, available at: https://cset.georgetown.edu/research/understanding-chinese-government-guidance-funds/.

As far as quantifying the impacts of Chinese industrial policy on venture capital activity, there have been quantifiable increases in venture capital investment in areas heavily promoted as part of China's industrial policy efforts, although it is difficult to definitively prove causation. For example, since China introduced the National IC plan in 2014 and formed the National Integrated Circuit Industry Investment Fund to invest in domestic chip capabilities, annual venture capital investment in Chinese semiconductor firms grew more than tenfold from $0.3 billion to a peak of $3.9 billion in 2018 (Figure 7). The 2020 total was only slightly lower at $3.1 billion. In addition, the percentage of all venture investments in Chinese startups targeting companies in the chip space increased from less than 2% in 2014 to 7% in 2020.

Figure 7: Announced Venture Capital Investment in Chinese Semiconductor Startups, 2012 – 2020
USD billions (left), percent of all VC transactions in China (right)



Source: Pitchbook.

Procurement Opportunities

Outside of explicit industrial policy efforts, Chinese government entities also direct the flow of capital to certain technology segments through procurement spend. For example, by creating a massive end market for surveillance technology products used to monitor Chinese citizen's behaviors, including the activities of ethnic minorities in regions like Xinjiang, the Chinese government has created lucrative revenue opportunities for related technology startups like facial recognition software technology company SenseTime, surveillance software and camera provider Hikvision, and voice recognition technology company iFlytek. Many of these firms have drawn investment from foreign venture players. For example, Intel Capital was an early investor in iFlytek[8], Qualcomm Ventures took a stake in

[8] As per Pitchbook, iFlyTek's full list of historical investors includes IPV Capital, Intel Capital, Keda Holdings, Legend Capital, Fosun Venture Capital Investment, China Mobile, Anhui Railway Development Fund, and Cybernaut (China) investment.

SenseTime[9], and Australia's Macquarie Group is an investor in facial recognition technology firm Megvii[10].

Market Access Restrictions

Foreign venture capital investors in China are subject to China's foreign investment regulatory regimes, which include substantial formal equity caps and other formal restrictions in certain sectors. Foreign VC investors also often face informal restrictions and discrimination. There have been some liberalizing reforms in recent years including progress towards lifting existing restrictions on foreign investment by reducing the list of restricted sectors on China's Negative List and providing a more level playing field through a new FDI law. However, other steps have been more regressive. For example, China introduced an onerous new cyber security regime and new mechanisms such as national security reviews for foreign investment. In all, Chinese authorities maintain numerous tools they can use to direct foreign participation in local technology niches, including through venture capital investment.

1.3 What are the Chinese government's objectives?

The Chinese government has two principal goals in influencing China's venture capital market: bolstering China's technological competitiveness and safeguarding against systemic financial risks.

Bolstering Technological Competitiveness

Under the leadership of Xi Jinping, China has accelerated an unprecedented whole-of-society effort to advance its strategic technological capabilities and leapfrog over established dominant players at the edge of the global innovation frontier. The last few years have only seen an intensification and centralization of these efforts: China is inching closer towards – not away from – a model of state-driven strategic technology acquisition that challenges established global economic norms and US interests. For example, after cataloging major growth in the number of state-run technology conversion enclaves, Sino-foreign science and technology professional organizations, outreach organizations, transfer programs, and other facilitators from 2013 to 2019, William Hannas and Huey-Meei Chang recently noted that "there is little ground to support a belief that growth in China's indigenous innovation—if it is happening at all—is accompanied by a decline in China's predatory transfer behavior."[11] As long as the

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[9] As per Pitchbook, SenseTime's full list of historical investors includes 5Y Capital, Advantech Capital Partners, Alibaba Group, All-Stars Investment, Alpha Intelligence Capital Fund, Alumni Ventures Group, Bank of China Group Investment, Beyond Ventures, CDH Investments, China Everbright, China International Capital Corporation, China Merchants Securities, Co-Stone Capital, Dalian Wanda Group, Fidelity International, Francis Leung, Glade Brook Capital Partners, Hopu Investment Management, Huarong Intl Financial, Huaxing Fund, IDG Capital, Infore Investment Holding Group, Orient Securities Company, Qualcomm Ventures, Sagamore Investments, Sailing Capital, Shanghai Free Trade Zone Equity Fund, Shanghai Shimao Company, Silver Lake Management, Singtel Innov8, SoftBank Investment Advisers, Star VC, Suning Company, TCL Venture Capital, Temasek Holdings, Tiger Global Management, and Zhongping Guoyu Asset Management.

[10] As per Pitchbook, Megvii's full list of historical investors includes Alibaba Group, Ant Group, Bank of China Group Investment, Boyu Capital, CCB International, China State-Owned Assets Supervision & Admn Commission, Comet Labs, GGV Capital, Hon Hai Precision, ICBC Financial Asset Investment, Legend Star, Lenovo Capital and Incubator Group, Macquarie Group, New Alliance Capital, Qiming Venture Partners, Russia-China Investment Fund, Sinovation Ventures, SK Group, Sunshine Insurance Group, and The Abu Dhabi Investment Authority.

[11] William C. Hannas and Huey-Meei Chang, "Chinese Technology Transfer: An Introduction", *China's Quest for Foreign Technology*, ed. by William C. Hannas and Didi Kirsten Tatlow (Routledge, 2020).

United States and other global innovation leaders continue to leave doors open for China to siphon away technology and knowhow, whether licitly or illicitly, China will continue to avail itself of those opportunities.

The *State Council Notice on the Publication of the Program to Build a National Technology Transfer System* released in September 2017 articulates China's vision for a multifaceted technology transfer strategy, which includes fostering foreign inbound venture capital investment as one of numerous explicitly identified elements.[12] The notice encourages local governments and other stakeholders to "guide enterprises towards establishing international technology management companies and overseas research and development centers; launch cooperation with foreign technology transfer organizations, business incubation organizations, and start-up investment organizations." US and other foreign investors may debate the real-world efficacy or actual practical risks of China's ambitions in the inbound technology investment space, but there should be no confusion around China's stated hope to leverage inbound investment in technology startups to promote China's strategic technological capabilities.

Maintain Systemic Financial Stability

Beyond technological development goals, Chinese authorities are also very sensitive to perceived risks to financial market stability, and regulators have demonstrated willingness to sacrifice near-term startup formation rates and stomach downdrafts in valuations in order to combat financial risks. For example, a key driver of the 2019 downturn in China's venture fundraising activity was Beijing's deleveraging campaign, which depressed major sources of capital for onshore venture fund formation as part of its crackdown on domestic financial excesses. The loss of these capital sources reverberated through China's venture capital ecosystem, contributing to a sharp drop in new fundraising and a downward adjustment to tech valuations. Similarly, China tightly controls the inflow and outflow of foreign portfolio investment, and in conditions of systemic financial stress has made it difficult for foreign investors to freely move capital as they enter and exit onshore investment positions.

2. Differentiate the risks to the United States of passive portfolio investment in Chinese securities versus private equity and venture capital investment.

Both foreign private equity and foreign passive securities investments provide Chinese firms with capital that may be used in ways that are detrimental to US interests or values (although it is certainly not just Chinese firms that this dynamic applies to – individual American firms also sometimes make decisions that are harmful to US interests). But beyond providing capital, private equity investment also often includes an active component of support for Chinese portfolio companies. Depending on the investor, this support may be much less fungible than the capital provided and may promote development of an investment target's business or technology capacity more efficiently than would be possible otherwise.

2.1 What separates the risks of U.S. investor participation in China's private equity and venture capital markets from those in other emerging markets?

[12] State Council, *State Council Notice on the Publication of the Program to Build a National Technology Transfer System* "国务院关于印发国家技术转移体系建设方案的通知", September 2017, available at: https://cset.georgetown.edu/wp-content/uploads/t0069_China_tech_transfer_system_EN.pdf.

China is an ideological and strategic competitor with the United States, and no other nation has ever engineered such a massive state-led, whole-of-society approach to pursuing dominance in strategic technology areas like China has. I have serious concerns about how the world might change if China were ever able to displace the United States as a global technological and strategic power and more forcefully project its models of economic and societal governance abroad. China's ambitions in this regard are alone worthy of consideration, regardless of whether a careful weighing of benefits and risks finds that on net there are unacceptable costs to any of the myriad economic linkages China has forged with the world, including foreign investment in Chinese technology startups. Similar investments in other regions simply do not entail comparable great-power competition considerations involving a US ideological competitor of China's stature and single-mindedness.

3. Describe the activities of U.S. and other multinational firms in co-investing with Chinese entities in Chinese tech startups.

As shown in Figure 3 above, co-investment in Chinese startups among foreign and domestic venture investors is very common. This is a natural result of the increasing sophistication of China's professional venture capital investors, the continued interest among foreign venture investors in the Chinese market, and the fact that most venture capital fundraising rounds include multiple investors. In most recent years, at least 80% - 90% of fundraising rounds for Chinese startups have involved at least one investor from mainland China, while at least 40% - 50% of transactions have included at least one foreign investor.

3.1 Beyond financial resources, what else do these firms provide to Chinese start-ups, and what risks might such exchanges create for the United States?

I refer readers to my comments in section 1.1 above.

4. How dependent is China's startup ecosystem on foreign managerial expertise and engineering talent, particularly in high tech sectors?

The most important reliance China's startups have on foreign talent is their dependence on Chinese entrepreneurs and engineers who have studied abroad or worked for foreign firms before returning to China. These "Hai Gui" individuals (also colloquially called "Sea Turtles" due to a homophonic pronunciation in Chinese) far outnumber any other cohorts of foreign managers or engineers supporting China's technology sector, and they have been a key ingredient in vitalizing China's domestic technology startup environment over the last decade.

Data from China's Ministry of Education illustrate the scale of China's Hai Gui population. At the end of 2009, a little under half a million Chinese nationals had completed overseas studies and returned to China, representing 62% of all those who had gone to study abroad at the time. Just ten years later at the end of 2019, 4.2 million out of 4.9 million Chinese nationals (86%) had returned home after completing studies abroad, giving China an infusion of nearly 4 million new workers with overseas training or experience from 2009 to 2019.[13,14] And external survey data indicate close to an additional 1 million Chinese nationals subsequently returned home in 2020 thanks to travel restrictions tied to the COVID-19 pandemic as well as more onerous immigration and visa policies in places like the United States.[15]

Chinese entrepreneurs who have studied abroad or worked for foreign firms continue to account for a significant minority of new technology startup formations in China, including many companies that have drawn US scrutiny in recent years. For example, Tang Xiao'ou and Xu Li both worked at Microsoft Research Asia prior to establishing SenseTime. Megvii founder Yin Qi is a Columbia university computer science alumnus. And CloudMinds co-founders Robert Zhang and Bill Huang are likewise both US educated. Each of these firms is now on the Commerce Department's Entity List.

Another important foreign cohort supporting China's technology startups consists of foreign engineers at research and development centers in international technology clusters found in the United States and other developed economies. Chinese companies operating on the global frontiers of emerging technology areas are especially reliant on these overseas operations. For example, many of China's most ambitious autonomous driving technology companies like Pony.ai, TuSimple, and Baidu have significant R&D presences in the United States with dozens or even hundreds of employees in Silicon Valley and other locations. AMD's fabless semiconductor joint venture in China (which was added to the Entity List in 2019) has an R&D operation in Texas. Huawei has an expanding artificial intelligence-focused research presence in the United Kingdom. And Entity List member Hikvision has an R&D center in Canada.

4.1 How are heightened geopolitical tensions impacting these kinds of knowledge transfers, and what other factors may be driving these changes?

Studies have shown that Chinese nationals who have gone to school or worked abroad have tended to decide whether to remain abroad or return to China based heavily on the balance of financial opportunities in each jurisdiction.[16] Other considerations like cultural preferences and the degree Chinese nationals feel welcome abroad undoubtedly also play a role, along with each individual's personal relationship with and feelings towards the Chinese state. The fact that the percentage of overseas Chinese nationals returning to China after studying or working abroad has risen substantially in the last decade reflects both a growth in new opportunities for these individuals in China and also a relative deterioration of their opportunity sets abroad.

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[13] Ministry of Education of the People's Republic of China, *The Ministry of Education announces the statistical results of all kinds of overseas students in 2009* "教育部公布2009年度各类留学人员情况统计结果", June 2010, available at: http://www.moe.gov.cn/s78/A20/gjs_left/moe_851/201006/t20100628_90108.html.

[14] Ministry of Education of the People's Republic of China, *Statistics of students studying abroad in 2019* "2019年度出国留学人员情况统计", December 2020, available at: http://www.moe.gov.cn/jyb_xwfb/gzdt_gzdt/s5987/202012/t20201214_505447.html.

[15] He Huifeng, "China's overseas graduates return in record numbers into already crowded domestic job market", South China Morning Post, 21 September 2020, available at: https://www.scmp.com/economy/china-economy/article/3102384/chinas-overseas-graduates-return-record-numbers-already.

[16] Zeithammer, Robert and Ryan Kellogg, *The Hesitant Hai Gui: Return-Migration Preferences of U.S.-Educated Chinese Scientists and Engineers*, Journal of Marketing Research, Vol. 50, No. 5 (October 2013), pp. 644-663, available at: https://www.anderson.ucla.edu/faculty_pages/robert.zeithammer/HesitantHaiGuiJMR.pdf.

Escalating US-China tensions have unambiguously made the United States a less attractive place for Chinese engineers and entrepreneurs to live and work over the last few years, partly explaining the accelerated rate of overseas Chinese talent returning to China. This trend may prove costly to the United States in the long run. As a recent report from the National Security Commission on Artificial Intelligence found, attracting and retaining foreign engineering talent, *including from China*, is an important ingredient in maintaining overall US technology competitiveness.[17] Keeping talented Chinese entrepreneurs and engineers engaged in the United States prevents them from pursuing endeavors in China that may be harmful to US interests.

New regulatory policies and an environment of heightened geopolitical tensions have also impacted Chinese technology firms' reliance on foreign research and development outposts, but the net effect has so far entailed more substitution and reorganizing across international borders than wholesale withdrawal from foreign R&D investment. For example, the Export Control Reform Act of 2018 (ECRA) and other regulatory developments like Entity List designations have introduced some new difficulties for Chinese companies developing technologies at US research centers. In response, companies like Huawei and CloudMinds have scaled down their US operations while continuing to invest in global R&D operations elsewhere. Companies like Didi have diversified by opening research centers in other jurisdictions instead of expanding their existing US footprints. And other firms like satellite imaging and software services provider Twenty First Century Aerospace Technology have avoided the United States altogether and instead established R&D bases elsewhere in North America and Europe over the last few years.

5. How do you assess the impact of current U.S. restrictions on investment in Chinese companies listed on the Mainland?

Beyond a few modest headaches such as forcing China's leading mobile telecommunications companies to delist from US stock exchanges, US policies prohibiting investment in certain Chinese companies have so far had only minimal tangible impacts on Chinese firms' business prospects and operations. The United States has simply been unable to meaningfully starve Chinese companies of development capital through the use of investment bans involving only its own citizens and stock exchanges. This reality reflects the globalized and highly mobile natures of modern international financial investment: alternatives abound. Although many companies still prefer to list in the United States, today Chinese technology firms can also raise capital in Hong Kong, on tech-focused exchanges in mainland China, or in a number of other international venues. And while the United States is a major global supplier of portfolio investment capital, there are plenty of other domestic and foreign substitutes to buy up US positions if US investors are forced to withdraw. Given these dynamics, it is not surprising that impacts on US investors have appeared to be more significant in some cases than on the underlying targeted Chinese firms as a result of these policies so far.[18]

A straightforward way to measure the relative impacts of different targeted policy tools on the operations of Chinese companies is to observe stock prices of publicly traded firms impacted by these exogenous US policy shocks. In the case of US investment bans on Chinese companies with military links,

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[17] National Security Commission on Artificial Intelligence, *Final Report*, March 2021, available at: https://www.nscai.gov/wp-content/uploads/2021/03/Full-Report-Digital-1.pdf.

[18] Alexander Osipovich and Chong Koh Ping, "Trump's Ban on Chinese Stocks Roils Investors", Wall Street Journal, 10 January 2021, available at: https://www.wsj.com/articles/trumps-ban-on-chinese-stocks-roils-investors-11610274600.

few targeted companies have seen their stock prices massively impacted as a result of US policy action, indicating minimal financial stresses or other negative outcomes for those firms. For example, at the end of February, the Hong Kong shares of China Mobile traded more than 7% above their November 11 closing price (the day before the Trump administration first announced the investment bans), despite enduring a delisting from US exchanges in January. The Hang Seng index was up about 12% over the same period, indicating only a slight underperformance for China Mobile. Compare this to the performance of ZTE: the Chinese firm's Hong Kong-listed shares fell more than 30% in the weeks after it was added to the Entity List in March 2016, while the broader Hang Seng market traded mostly flat. Cutoff from critical US technology inputs was clearly more impactful for ZTE's business that a US delisting and investment ban were for China Mobile's.

5.1 What could the United States do differently to target investment that could potentially benefit Chinese defense firms or otherwise fund companies acting contrary to U.S. national security interests?

Where US and other foreign investment in Chinese technology firms consists only of fungible capital, the main determinant of the efficacy of any investment ban is the extent that targeted Chinese companies can raise replacement capital from other sources. Only if a firm is effectively starved of capital can an investment ban have major impacts on a company's business. However, effecting capital starvation within our deeply interconnected and globalized financial system is extremely difficult, even if the United States is able to coordinate with like-minded allies on investment restrictions. There are enough alternative sources of capital from both private and government sources in China as well as from investors in other jurisdictions who are unlikely to agree to US-led investment prohibitions so as to make a widespread capital starvation strategy practically untenable.

This is not to say there is no space for regulating US capital investment in Chinese companies on principle; like many others in the United States, I feel that there is something perverse about investing in Chinese firms that are acting contrary to US interests and values, especially when those behaviors constitute those companies' whole raison d'etre. However, recognizing that capital starvation is rarely an achievable outcome, US policymakers should carefully weigh the potential economic costs they are likely to impose on US investors on a case-by-case basis and know that they are unlikely to meaningfully affect target Chinese firms' business prospects through this channel alone. Moreover, in some cases US investment bans may also have unintended negative consequences, for example by encouraging the Chinese government to forge stronger direct ownership ties with strategic companies as US and other foreign investors withdraw, pushing those Chinese companies closer to the embrace of the state.

The United States and its allies may be better served focusing on regulating scenarios where US and other foreign players offer more than just fungible capital to Chinese firms. In cases where investors contribute proprietary technical knowhow, valuable networking ties, or other forms of differentiated support to Chinese investment targets acting contrary to US interests, regulatory intervention is much more likely to have tangible impacts on those Chinese companies' businesses. For example, in cases where existing tools like the US export controls regime fall short, the United States might regulate the types of non-financial contributions US investors can offer to their Chinese investment targets, possibly differentiating based on Chinese firms' ties to the Chinese state, presence in critical technology areas, or other relevant criteria. This would necessitate a government-led effort to first understand the scope of potential harm to US interests stemming from unregulated foreign investment in Chinese technology companies, including a careful study of historical patterns, technologies, linkages, applications, and so on.

6. The Commission is mandated to make policy recommendations to Congress based on its hearings and other research. What recommendations for legislative action would you make based on the topic of your testimony?

I want to begin by emphasizing the need there is for government to lead out on crafting solutions to challenges presented by China's state-led, market-oriented overseas technology acquisition strategy. Free markets cannot address these challenges effectively on their own because China is using its influence to alter domestic and foreign economic actors' incentives within free markets to foster its own desired outcomes at the expense of US and other foreign interests. Absent any policy response, the United States' default option is to continue to allow its own citizens and corporations to be led by the economic incentives China has crafted through state intervention in global markets. These incentives typically offer US economic actors short-term rewards at the expense of long-term sustainability and the broader economic and strategic interests of the United States. Addressing Chinese overseas technology acquisition efforts involves a textbook case of mispriced externalities: US economic actors are not fully internalizing the costs of their behaviors vis-à-vis China because they do not have to directly bear those costs.

Government can fill this leadership role in three important ways:

(1) **Bring transparency and awareness to China's overseas economic statecraft ambitions and strategies.** Government can help private market participants better price the risks of engaging with China across various economic conduits by tracking, understanding, and educating on China's evolving efforts to acquire foreign technologies and expertise. Even today, there remains a worrying lack of understanding among many US research institutions, multinational corporations, financial investors, and others about the scope and purpose of China's global technology acquisition strategy.

    The following are practical steps US government may consider in pursuit of this goal:

    - **Form a government body in charge of understanding and monitoring China's technology acquisition efforts**. Government should consider forming a centralized body tasked with monitoring the latest developments in Chinese technology acquisition policy and strategy on behalf of all US public and private stakeholders. As much as practically possible, this body should have access to the insights and knowledge generated and held within all arms of the federal government, including law enforcement and defense segments, to maximize knowledge sharing and efficacy. This body should release regular public reporting with appropriate details to provide stakeholders with timely, accurate information on the latest potential risks and costs of enabling Chinese technology acquisition efforts.

    - **Provide the tools for government to collect information**: Understanding and educating on China's technology acquisition activities requires that government be able to systematically assess channels and cases of Chinese technology transfer efforts. This in turn requires government to have good information on the activities of US and other foreign economic actors engaging with China. Currently there are many areas where a lack of data makes this difficult. For example, US private equity investors often do not disclose their funders or Chinese investment targets, preventing government from understanding how their behaviors may be harmful to US interests (it is notable that China requires considerably more disclosure among its corporate investors than the United States does). Also, US firms often choose not to disclose cases of Chinese technology transfer they are involved in, even when disclosure could help inform others in the United States about important risks or developments. The US government should systematically identify areas like these where a lack of information is a major hurdle and craft policy to enable government to acquire needed datapoints.

- **Give government the authority to proactively warn private market players of specific risks:** Current well-meaning regulations like those prohibiting US intelligence agencies from disclosing actionable information to specific private sector participants without sharing that same intel with a firm's competitors have unintentionally made it difficult for government to alert US companies and other organizations to specific China-related technology acquisition threats. The US government should consider changes to these regulations to allow it the needed latitude to fully share valuable information with private market players to counter imminent technology transfer risks. Poor communication among government and private market stakeholders creates preventable opportunities for China to effect harmful technology acquisitions.

(2) **Counter the distorted economic incentives China has introduced into international markets with appropriate policy**. Understanding and informing private market actors about China's technology acquisition strategies will not be enough alone – absent any regulatory or economic consequences, US and other foreign players will still make decisions that harm long-term US interests in exchange for short-term economic gains. As it contemplates policy and regulatory solutions, the US government should prioritize its efforts based on China's evolving strategies and observed real world behaviors and should pursue steps that are targeted and precise instead of blunt and unnecessarily self-harming. This is not to say that the scope of any solution will be small; the threat China poses to US interests through its technology acquisition programs is measured in the trillions of dollars in terms of both resources committed by China and potential costs to the United States.

The following are practical steps US government may consider in pursuit of this goal:

- **Implement needed policy fixes to counter risks tied to US investment in China**: As part of its efforts to create transparency and understanding around China's strategies for acquiring foreign technologies, the US government should determine what kinds of US investments in Chinese technology and other companies entail legitimate, unmitigated risks to US interests. The US should then work (ideally with allies) to craft targeted policies that guide investors from the United States and elsewhere away from investment activities in China that unacceptably strengthen Chinese strategic capabilities or entail other unacceptable compromises to US principles and values. Policymakers should understand that in most cases, capital starvation and significantly altering Chinese company behaviors will not be likely outcomes of any policies restricting investment in Chinese startups or other companies.

- **Proactively identify and engage in other areas where policy attention is needed**: China's multifaceted technology acquisition strategy involves numerous conduits of technical transfer, many of which are more potent than US investment in Chinese technology startups. The US government needs to systematically identify these conduits and determine whether there is need for policy intervention in each case. For example, while US lawmakers have given significant attention to investment screening and export controls in recent years, other non-equity conduits such as R&D partnerships and talent recruitment programs have not been scrutinized as closely with an eye towards actionable policy solutions.

There is also need for continued attention in areas where US lawmakers have recently implemented policy changes. For example, although passage of the Foreign Investment Risk Review Modernization Act (FIRRMA) in 2018 created new authorities for the Committee on Foreign Investment in the United States (CFIUS) to review foreign venture capital investments and resulted in a notable drop in Chinese industrial policy and other state-affiliated venture investments in the United States, a lack of public enforcement actions since then and a growing perception that skirting new rules has limited repercussions has resulted in a rebound in Chinese state-affiliated investment in the US startups space. Unless FIRRMA enforcement in the venture capital space becomes timelier and more systematic (and also more public, to the extent that is possible given confidentiality requirements), this dynamic is unlikely to reverse.

(3) **Adopt policies to promote innovation and keep the United States the world's leading technological power**. The United States owes its current position at the pinnacle of the global technology ladder to a social and economic environment that has been highly conducive to innovation over many decades. As the United States considers policy responses to China's efforts to acquire foreign technological expertise, we should remember that no amount of preventative action to keep technology transfer at bay can maintain the United States at the forefront of the global technological frontier if the United States loses its position as the most attractive destination for innovators from around the world. An ample body of academic literature exists illuminating the kinds of support needed to maintain a competitive innovation ecosystem, from public funding and tax credits to building human capital through progressive immigration rules and a focus on STEM educational capacities.[19] China is competing with the United States to become a center of global innovation, and the United States must outcompete in these realms if it is to maintain its long-term technological edge.

Inclusivity towards foreigners has long been a critical element of the strong innovation environment in the United States. In that light, I find the recent direction US immigration policy has taken to be particularly concerning. We must keep the United States a welcoming place for global entrepreneurial talent, including from China, in order to maintain the United States' competitive global edge in innovation. US-trained Chinese entrepreneurs and engineers have played a more important role in the recent development of China's technology capabilities than funding from US venture investors has. By fostering anti-Chinese sentiment in the United States through policy and rhetoric, our leaders have risked cementing a more alienating environment that has already encouraged hundreds of thousands of Chinese innovators to go home instead of applying their talents in the United States. I encourage policymakers to carefully consider how the United States can use immigration policies in narrow, targeted ways to prevent harmful knowledge transfers while strongly signaling our commitment to remain an open society where innovators from any nation are welcome to participate and prosper in our vibrant ecosystem.

[19] For example, see: Bloom, Nicholas, John Van Reenen, and Heidi Williams, *A Toolkit of Policies to Promote Innovation*, Journal of Economic Perspectives, Vol. 33, No. 3, Summer 2019, (pp. 163-84), available at: https://www.aeaweb.org/articles?id=10.1257/jep.33.3.163.

PANEL II QUESTION AND ANSWER

COMMISSIONER BOROCHOFF: Thank you to all three of our witnesses. We're going to go in reverse alphabetical order for questions.

So, Commissioner Wong, it's your turn.

COMMISSIONER WONG: Thank you, Mr. Chairman.

And thanks to all of the witnesses today. Very, very informative and it's really assisting all of us as we move forward on drafting our recommendations and our analysis for the members of Congress. I don't have too many questions, but maybe I'll just go to Mr. Lysenko.

I was interested in your testimony, and you mentioned that the venture capital and private equity, the deal number as well as the volume of investment, has increased in recent years. I think you cite some regulatory changes that make the market more -- the China market more attractive to VC firms and private equity firms.

Would you also agree though that, I mean, over time--and perhaps this is a cumulative effect, that -- you mentioned the return of educated Chinese citizens to China who have been educated abroad: engineers, business people, that their time spent in, let's just say, Silicon Valley, built out their networks and understanding of venture capital culture and private equity culture where they could form relationships and understand how it operated and that this is bearing fruit for the Chinese market today, meaning that they can draw in and have -- with these relationships the investors and those venture capitalists seeking yields down the line?

MR. LYSENKO: Yes, I think without reservation I would agree with that. As I laid out in my more-detailed testimony the -- even today where you have an ecosystem in China that is producing more engineers, creating more experienced venture capitalists, these foreign returned investors, entrepreneurs, engineers are still accounting for a high proportion of the newly-formed start-ups in China, including some of those that within the United States we view as being potentially challenging to U.S. interests.

For example, if you go and look at a list of Chinese start-ups that have been placed on the U.S. Entity List in the last two years, several of them which have been founded in the last two years include returning engineers and entrepreneurs from the United States, for example.

COMMISSIONER WONG: Right. It was just more of an observation than a question, but the process of-- let's just focus on venture capitalists-- is not easy. Making your company attractive to venture capital investors, laying out the business plan, having the right talent, speaking -- literally speaking the right language for these investors is a hard thing to learn. And when you spend time in Silicon Valley and you spend time in these -- I would just call them kind of information bubbles, you learn the culture. And they can transport that back and again, build out their networks internationally. And that's not necessarily a bad thing. That happens with countries around the world and that's why in large part come to the United States, for our world-class higher education.

But you mentioned this -- in parallel there's also these info bubbles around the national security aspects of the U.S.-China economic relationship. And you mentioned this where you were advocating for greater information provision, greater education, greater give and take with the investor community on the Chinese government's strategic goals in the industrial space and the technological space.

And when you live in Washington, D.C. and when you study these issues like you do and the others on this panel, you kind of feel like this is information that's just out there and people know it, especially now that the U.S.-China competition and U.S.-China policy is taking such a forefront role in our foreign policy. But my experience when I go to Silicon Valley, when I go to New York, when I go to other places is that the thinking on the China strategy might be lagging five to ten years, just speaking in general.

So, I would agree with you that a piece of this, not obviously a sufficient one, but a piece of our approach on this issue is greater give and take between the national security community, between the government and the investor community, breaking down these information bubbles so that we are all working with the same set of information about Chinese intentions and policies. More of a comment than a question.

COMMISSIONER BOROCHOFF: Thank you.

MR. LYSENKO: And I'll just respond by saying I agree. Yes.

COMMISSIONER BOROCHOFF: Thank you, Commissioner.

Commissioner Wessel, it's your turn.

COMMISSIONER WESSEL: Thank you. Thank you all for being here.

And, Ms. Kong, thank you for your comments regarding not only the acts in Atlanta this past week, but the overall concerns of the community which I think we all take to heart and we wrestle with here in terms of -- we are U.S.-China Commission, so our policies and focus is with regard to the CCP. Many of our concerns: human rights, other challenges, apply to other nations as well, but Congress has restricted our mandate. So, thank you for your comments and please don't take any of the comments we or any of -- I or any of my colleagues may make about China as being limited in their concerns, if you will.

Mr. Lysenko, let me ask you a question regarding transparency because VC is in a different realm. It is not subject to the same market disclosures, et cetera, because -- until it becomes a public investment.

What access do you have, or are you aware of your colleagues who study it, into VC activities in China? Going out to Silicon Valley, going up to Boston, not only Route 128, but if you go to MIT and just walk around the corner, the number of other investors and other companies there is phenomenal. Are we given the same kind of access -- or do you have the same kind of access to understand what's happening in China that they and other countries have here?

MR. LYSENKO: I think there's definitely an informational disparity just broadly between China and the United States. If you look at the types of disclosures that are required of the Chinese firms, both public and non-public in China, they in many cases exceed the types of disclosures that U.S. companies are forced to make.

For example, China has a unified social credit system that includes ownership relationship ties between every private and public company in China. And so, if I want to track venture capital investment activity, it's actually a lot easier in China to do that than it is in principle in the United States due to these informational disparities.

COMMISSIONER WESSEL: Are those social credit scores publicly available, all of the components of it? I thought those were directed to government utilization.

MR. LYSENKO: There is a lot of information in China that I am certain is exclusively meant for government view, but the type of information I'm talking about, including equity relationships between companies, both private and public, in China are publicly available and anyone can look at them.

There's no analogous disclosure in the United States, and so, actually ironically in some ways, it's more difficult to track the behaviors of venture capital and other private equity investors in the United States than it is in China. That being said, there are some great companies out there, mostly in the private market like Preqin or PitchBook or CB Insights, who have tried to take on this problem by using innovative tools, relationships with investors to pull data together in a way that's very useful. And so, like other researchers looking into venture capital and private equity spaces I'm heavily reliant on information provided by those commercial data providers.

COMMISSIONER WESSEL: Okay. Ms. Kong, you -- and I enjoyed your comment about being the bond girl at the front end -- You talked about CEOs in China not being paid in bonds and debt instruments. That's not a component of U.S. pay either, is it?

MS. KONG: That's absolutely right. My point there is to show that corporate governance and the questions that we ask are actually very consistent across the world. And we find the same type of malfeasance in the United States as we do in places like China.

COMMISSIONER WESSEL: But in terms of bonds in China, do bond holders have preferential claims in bankruptcy to assets over equity holders? Is it similar to what occurs here?

MS. KONG: That's a really great question. So, the bankruptcy code in the United States has many decades, over almost now a century of precedents, where an investor can rely on to see whether rules such as structure subordination and absolute seniority are followed.

In China if you are at a subsidiary level with securities -- so if your loan is actually securitized, secured by underlying assets, you do have first claim. However, there is no such thing as relying on precedents or being able to look at historically what has happened in a bankruptcy court to induce what your recovery might be.

COMMISSIONER WESSEL: Okay. Thank you. If there's another round, would welcome other questions. Thank you.

COMMISSIONER BOROCHOFF: Thank you, Commissioner Wessel.

Commissioner Talent, your turn.

COMMISSIONER TALENT: Thank you, Bob.

Dr. Petry, I'm very interested in your discussion which is on page 102 of your testimony about how and why the index providers decided to include Chinese A shares. I'm not sure I understood it, which will be my lack my knowledge rather than your explanation, but if I understand correctly, Beijing made some changes in response to suggestions from the index providers making it easier I guess to delist Chinese companies and providing more English information services, but that none of those changes went against what you call their state capitalist logic and that the real decisive factor was the fact that the Stock Connect Program allowed international investors much greater access.

Am I correct that as a result of that these investors began to clamor with the index providers for them to list Chinese companies? And I guess I'm wondering, in your opinion, did the fundamental issues that were keeping them from listing them -- in other words, which I assume had to do with transparency, concerns about fraud that the last panel discussed--were those really cleared up? I mean, are you personally comfortable with this? Because we have a lot of passive investors, these index funds who are not following this day to day. Their money is invested based on these index funds and I'm concerned that they may not know the risks they're running.

So, would you discuss that a little bit more, please?

DR. PETRY: Of course. Happy to. So, the -- yes, the decisive factor for the inclusion of Chinese stocks and bonds -- I mean, I'll talk about stocks. The decisive factor about the inclusion of Chinese stocks into MSCI, FTSE Russell, and S&P Dow Jones indices was Stock Connect.

So, the way index providers make their decisions on whether to include or exclude emerging markets is based on -- I mean there's some quantitative metrics such as you need a certain amount of companies that have a certain market capital, certain liquidity, but a lot of countries tick these boxes.

The real decisive factor is very often market access. So, how easy can international investors go in and out of the market? And that was something that was really difficult before the Stock Connect. You had the QFII and R(QFII) investor schemes, but there was issues about the repatriation of profits, how easily you could get in and out, settlement cycles and so on.

So, and with Stock Connect you had a much more seamless way of entering China without actually having to have an entity within China as well, so you just trade through a Hong Kong broker with the Connect. And this kind of mechanism made it a lot easier for international investors to invest into China.

Considerations about fraud and so on were not really part of the discussion, because what the index provider does is it tries to represent the market. It does not try to outperform the market. So, if the market goes down, it goes down; if it goes up, it goes up, and that's what the index tracks. So, these individual considerations about fraud in individual companies or on the macro level was not something that was part of the consideration. It was really about market access, which was enabled by Connect.

COMMISSIONER TALENT: So, if you were -- I have another minute. If you were in the body that we are advising, would you be comfortable with this development? I mean I'm not talking now about national security issues or the rest of it. I'm talking about concern about the integrity of our investors and adequate protection for our investors. I mean, just what's your personal opinion about it? Would you be comfortable with this?

DR. PETRY: So, I would say there's really something to think about when it comes to index funds. You don't -- these are not sophisticated investors, so this is a good point that you make.

So I would say -- I mean one thing that the Commission could do was think about whether it's appropriate to think -- to propose more regulation for index providers, because at the moment there really -- the regulation is very little. And as I said, they represent a market; that's what they do, but actually the decisions have much larger consequences. And if for instance this was linked to ideas about corporate governance or ESG, this is definitely something that is probably a discussion worth having.

COMMISSIONER TALENT: Thank you.

COMMISSIONER BOROCHOFF: Thank you, Commissioner Talent.

Commissioner Scissors?

COMMISSIONER SCISSORS: I have two questions interrupted by a comment. The questions are actually very simple.

Ms. Kong, you said in your oral testimony and also in your written that international investors are about three percent of the bond market. You said a larger share of the government bond market -- in your written testimony I recalled seeing nine percent. Can you tell us either now or by written what data you used to determine those shares? I'm not challenging you. I just want to know what the sources were.

MS. KONG: Certainly. So, let me clarify the numbers. The three percent of the overall bond market is the entire China bond market, which includes government, policy banks, as well as the enterprises. The nine percent number refers to the percentage of foreign ownership in the Chinese government bond market.

Those sources are based on our broker dealers, so many of the major broker dealers publish an estimate. We don't have the exact numbers. And then the Asia Bond Online, which is under the Asia Development Bank, also provides a lot of information.

COMMISSIONER SCISSORS: Okay. Do you -- you'll know why I'm asking this question, and it's out of knowledge of something else and ignorance here. Is Hong Kong counted as an international investor? In direct investment, Hong Kong is seen as an external source. Is nine percent international ownership of Chinese government bonds, does that include Hong Kong on the international side?

MS. KONG: That's a great question. I will double check my numbers and get back to you.

CHAIRMAN BARTHOLOMEW: Thanks.

All right. Mr. Lysenko, the comment which you -- I don't want you to respond to because I don't want you to shatter my dreams. I want to say that I agree with your call for U.S. leadership. I agree that Chinese distortions harm the country more than they harm actors in the market. I agree that information provision is a necessary U.S. action, government action, and I agree that it's far from sufficient. And if I mischaracterize you, just nod and say that I didn't, because I want that to be true.

And I also have a question for you, which is a little easier. I read your written testimony as saying you don't see that much difference between venture capital and what we could call generic portfolio investment. That is of course my view, so it's very easy for me to read your testimony that way. But if you agree, great; if you don't agree, push back and tell me where you think the key differences are.

MR. LYSENKO: Yes, I think there's a little bit of nuance there, Commissioner, and I'll push back just a little bit.

What they have in common is that, by and large, most U.S. venture capital investors in China are going to be characterized as like fund managers who are just seeking financial returns. And so, the motivations for most venture capital investors and then passive portfolio investors in China are very similar, just looking for a return.

But something distinct happens sometimes in the venture capital space, and that's that because these venture organizations are investing in individual startup companies, those startup companies' fate have a lot to do with the resources, the connections, the networks that the VC investor sometimes can bring to the table.

And so, if I'm an average Joe American putting $5 in a U.S.-listed Chinese stock, I'm not lending that Chinese company anything other than my capital. But sometimes what can happen in the venture capital, private equity space is that they'll be lending more than just capital. They'll take maybe an observer seat on the board or a board seat and start to direct that company's strategy. They might make introductions to key knowledge holders outside of the company or to other intermediaries that benefit those start-ups down the line.

In the case of some strategic investors, if you're a U.S. corporate venture capital investor looking not just for a financial return but also to create future market opportunities for yourself in China, you might have an incentive to share like technical expertise and other things.

So, there can be a distinction where in some cases in this private equity realm you're offering more than just capital.

COMMISSIONER SCISSORS: So, the reason I asked you that question, and thank you for your answer, is I feel like we need to separate out as Commissioners in our advice to Congress the generic portfolio investment has the more naïve investor. They're not as connected and so on. Their exposure there is just money. Do we want them to be able to invest freely in China, which is a good thing, but if they don't know what the hell is going on, so maybe we want to protect them?

On the venture capital side, they're much more sophisticated. We don't need to protect them. They don't need protection as has been brought up before. We need to worry about them, that they may be bringing a little too much to the table in certain -- I'm not -- I don't want to put words in your mouth. I need to worry about them that they may be bringing a little too much to the table in certain key sectors.

So, the Commission has brought up both concerns and I was just trying to get at for most generic portfolio investment, there's one kind of concern, which is protecting the investor, and for venture capital the concern shifts more to protecting the country.

MR. LYSENKO: I think that whether or not those risks are real and need to be addressed with policy in the VC space is beyond the scope of my expertise, but I do agree that there are different considerations in those two buckets that merit separate consideration, yes.

COMMISSIONER SCISSORS: Thank you.

COMMISSIONER BOROCHOFF: Thank you, Commissioner.

And thank you, Mr. Lysenko.

Commissioner Kamphausen?

COMMISSIONER KAMPHAUSEN: Thanks very much to our panel.

Ms. Kong, I have a question for you and it's certainly not my area of expertise, so please bear with me.

In your written testimony, you say “in my professional opinion prohibiting U.S. persons from being able to invest in public securities of loosely-defined Communist Chinese military companies, CCMCs, is detrimental to U.S. investors.” And you give two reasons: One, it hampers the ability of asset managers to perform their fiduciary duties to the best of their abilities; and secondly -- so that's more an inhibition that you argue is not useful to them as they manage assets. But then you say it's also not likely to work because the CCMCs are usually not entities on their own. They're DREs as you refer to them. And so -- or I should say they're subsidiaries of DREs, and you use the example of GE and GE Aviation.

This is a very helpful set of insights, but I guess my question is are there other reasons, are there other factors? I mean, apart from we can't do our job as well and in any case it's not likely to work because these are -- they just don't exist as -- these companies don't exist as separate entities, are there other factors that maybe with a little more time you could elaborate on?

MS. KONG: Certainly. Thank you very much for that question, Commissioner.

The one thing that I did not mention is just the fact that these securities have already been placed in the primary market. So, they're currently trading the secondary market, meaning that the capital has already been invested in these companies. And so, for example, when the executive order came about, owning a subsidiary, which is an agricultural chemical company, which has very little if anything to do with the Chinese military company, was in fact kept under this executive order because it's 100-percent owned subsidiary, right?

And so, at that point, we're faced with the question of do we sell it now when there's no buyer, right? Think about it this way: You need a buyer in order for us to potentially sell the security. And the actual capital has already been taken in by this company because now we're -- it's all trading at secondary market. So, it really -- from a first order effect, it doesn't affect the company at all. If anything, the first order effect is that now the U.S. investor may actually have to take a mark to market hit, and if in fact that security is sold, will take a real loss just because of this specific regulation.

That's more of a minor point because over the long run the second order effect, I think, will actually limit the demand for that -- the capital for that particular subsidiary. So, over long run it will have some effect.

But I think the primary two reasons you cited, as I've explained in my written testimony, are in fact the most important ones, that most of these military companies by and large are not publicly traded. And because so many companies in China are large conglomerates, we end up basically being prevented from investing in a lot of really good companies out there that may actually be offering a very attractive return given the underlying risks.

COMMISSIONER KAMPHAUSEN: Thanks very much. Yield back my time.

COMMISSIONER BOROCHOFF: Thank you, Commissioner.

Commissioner Goodwin?

COMMISSIONER GOODWIN: Thank you, Commissioner.

And thanks again to the panel for your excellent testimony.

Ms. Kong, I want to touch on a portion of your written testimony about rating agencies and credit ratings. You wrote that with international rating agencies coming into the domestic market, we should expect greater transparency to the creditworthiness of Chinese companies. And I want to explore that question, will there in fact be greater transparency and whether those ratings will be more accurate assessments of the risk posed by the debt that's being issued.

We explored this issue a little bit in last year's annual report to Congress and actually posed the question whether the international agencies will in fact be immune from some of the competitive pressures and regulatory meddling that has distorted a lot of the credit ratings issued by the domestic agencies.

So, how confident are you in the ability of the international rating agencies to withstand these pressures, but competitively and from a regulatory standpoint and to issue ratings that more accurately assess the risk?

MS. KONG: Great question. So, there are two key components: The first component is that international rating agencies are determining their ratings over a much larger sample size. So, imagine a distribution, right, of outcomes for a company that has let's say two times interest coverage. That is going to be calibrated over decades across different countries and over different industries.

In China, the capital markets are very nascent, and so the amount of information is calibrated -- the rating is calibrated over a much smaller time period, over a much smaller subset of industries. And as a result, because there have been so few defaults, almost all of these ratings will tend to be -- they look very, very optically high.

But an international rating agency will look at the same company with two times interest coverage and will most likely calibrate substantially lower because, internationally, we've had substantial market falls. So, that's the first part of my answer.

The second part of the answer actually has to do with the fact that it is the company itself that typically pays for the rating, which means that if a company decides not to pay for an international company to do a rating because it's not required because the majority of their investor base are based in China, then we're not going to get that transparency.

COMMISSIONER GOODWIN: So, just to make sure I'm understanding you, so in the -- depending upon the model of compensation, and obviously some of the rating agencies are in fact paid by the issuer as opposed to being paid by investors, those competitive pressures to issue perhaps inflated ratings that help them garner more business will still be there, correct?

MS. KONG: That is correct. I will say that a lot of companies decide not to go with the big 3 international rating agencies just because their investor base has become increasingly local, and they do not require, for example, large U.S. investors to actually be part of the book building process in a primary issuance.

I think that if a company is interested in attracting foreign capital, specifically the money centers of New York and London, then having a rating from one of the big three is very important because a lot of our institutional investors and their risk buckets are based on those ratings.

So, for example, right, an insurance company in the United States has very strict limitations in terms of what percentage of that insurance portfolio, the general insurance portfolio, can be in sub investment grade, and they only look to the big three agencies.

COMMISSIONER GOODWIN: Okay. And how about on the back end? I know with a string of defaults in the last quarter of last year there was some suggestion that part of the problem was that these domestic rating agencies were reluctant to issue downgrades in the same manner that international agencies do, which is to provide an advance warning to investors about potential default.

Instead, they issued a series of successive downgrades in quick succession, resulting in multiple defaults. And part of the reason why they did that is a reluctance to issue downgrades for fear of losing -- regulators were pressuring the rating agencies to not issue downgrades for fear of the volatility it might inject into the market. Is that accurate and would international agencies be subject to those same sorts of regulatory pressures?

MS. KONG: Rating agencies are really between a rock and a hard place. We've seen over and over, whether it's in the European banking crisis or in the current crisis whereby a lot of, for example, emerging market countries -- their ability to borrow internationally at a class of capital that is low enough is very much predicated on the rating of a country.

And so, rating agencies often have to ask, am I becoming an endogenous variable in the sustainability of this capital structure and in the ability of this company to actually raise additional liquidity?

And so, in the case of Chinese rating agencies, I'm sure they're under the same constraints. Oftentimes, also in the international rating agencies, if you don't get adequate information, they will also withdraw a rating. So, there are times when a company could be spiraling down into a default and the company oftentimes just does not provide sufficient disclosure, in which case you know rating agencies also just say we know that we don't know enough to actually even opine on the rating.

So, rating agencies do have a lot of constraints, but whether these rating agencies are necessarily acting nefariously, we really have no evidence of that.

COMMISSIONER GOODWIN: Thank you.

COMMISSIONER BOROCHOFF: Commissioner Fiedler?

COMMISSIONER FIEDLER: Yes, I have a couple of technical questions here.

Ms. Kong, in your company, on the equity side, if you own equities as a large institutional investor, your folks are filing 13F filings with the SEC to list what you own. On the debt side, is there a similar requirement?

MS. KONG: So, currently we file all of our holdings. It is publicly available on a quarterly basis under the United States. In our foreign-managed funds, which are UCITS-based in Luxembourg, those holdings are actually available on a monthly basis.

COMMISSIONER FIEDLER: Including debt holdings?

MS. KONG: Every one. Every single security. Correct.

COMMISSIONER FIEDLER: Is that similar with other companies that are disclosing their debt holdings as well, and the 13Fs?

MS. KONG: So, we disclose everything by filing, and we are a U.S. mutual fund under the '40 Act, so every U.S. mutual fund would be under a similar rule.

COMMISSIONER FIEDLER: Dr. Petry, and other witnesses, too, the U.S. Government names Chinese military-related companies in its restrictions. People are calling for greater transparency into the information and the decision-making process. And I think there's quite a lot of legitimacy to the targeting process being understood, but is it also understood that it's the U.S. Government and some significant part of their information is going to be classified? In other words, they have access to information that the rest of us do not, especially as it involves military-related companies. So, there's going to be always some degree of non-transparency to this decision-making process. I mean, that's true in the CFIUS process right now, right?

(No audible response.)

COMMISSIONER FIEDLER: Does everybody sort of agree with that?

(No audible response.)

COMMISSIONER FIEDLER: The comment I would like to make that we have -- it's a small amount of investment. My answer to that seems to be at the -- I mean the Chinese restrict the amount of investment in equities at the moment. They're only now opening up to foreign investors in a bigger way. And there's -- we haven't talked about the principled part of this equation, which is does a U.S. entity -- I mean let me give you a sort of more graphic example.

China Electronics Technology simply makes the innards of ballistic missiles' guidance systems. The United States is hardening its military facilities in Guam against those ballistic missiles. So, it's spending money. Okay. We are deeply concerned about whether the Chinese are going to take military action against Taiwan and it remains to be seen how involved the U.S. is going to be, but it would presumably involve ballistic missiles. Therefore, does it matter whether we're helping them a lot or just a little? Should we at all be involved in facilitating Chinese ballistic missile companies?

And, Ms. Kong, you talk about that they are largely state-owned enterprises that aren't traded, but if you look for instance at China Electronics Technologies, they have a half a dozen publicly traded subsidiaries that contribute to their general business where their ownership ranges go from 47 to 11 percent.

And I know that we have already stated that ownership positions don't necessarily -- we've heard testimony, ownership positions are not the controlling factor here, but if you -- if China Electronics Technologies owns 47 percent of something, I'd presume that they have a lot to say about what happens with that company. And that company is invested in by U.S. investors.

So, is there a difficulty in understanding why the U.S. Government would want to say we don't think our citizens' money should be going towards this stuff?

MS. KONG: Thank you, Commissioner Fiedler. First, you're raising in -- your example of this particular company I think is very fair, and that in fact is my job, right? I highlighted the key dimensions of risk and return are credit, currencies, and rates. And the one thing I didn't highlight because it's not necessarily a risk is actually an uncertainty, right? It's not measurable. It is the regulatory environment and the policies between China and U.S.

So, for companies like that, we as an active investor would actually deem that to be uninvestable because we are very aware of the current political environment and we would not want to be investing in anything that has to do with the U.S.-China military, at least explicitly, right? We certainly don't have privy to all the information that you would, but that is a huge dimension now of our analysis and it really falls under the entire ESG framework that we integrate into our process.

COMMISSIONER FIEDLER: Well, I mean, I appreciate the fact that you don't, but there are a considerable number of others that are continuing to invest in those, so apparently -- I mean we've heard testimony that people don't take national security considerations into account in making their investment in their fiduciary duty. Therefore, it seems to me that it is helpful in fact if the U.S. Government says no, we think that company is bad because of X, Y and Z.

And we have a -- I think it's fair to say that the last administration was a bit hurried in its edicts on this and in the implementation of it. And the new administration has got it in its lap and seems to be not opposing the general principle, but is struggling with the implementation. And that's what we are doing in this hearing, this same thing. That's why this hearing is so important it seems to me to advising members of Congress who are introducing bills left and right regarding this.

So, the nuanced testimony that you and others have given are useful to us, but don't seem -- I just want to underscore the notion that there's also principle involved in this. I mean we have applied this to trade. We have said trade can be dangerous. What the U.S. Government is now saying is money can be dangerous, and investment can be dangerous as well. And I don't think there's a broad brush that can be painted here, but it is serious business and I appreciate your testimony today. Thank you.

COMMISSIONER BOROCHOFF: Yes, you want to --

DR. PETRY: Yes, if I could briefly respond to that comment. I think there's two aspects to that: One is how transparent is the process? And I think there is an understanding that there is some degree of non-transparency involved when it comes to military issues.

The other -- so the principle aspect, that makes sense. The other aspect is how efficient are these restrictions? And this I believe only works if you at least get U.K. investors on board for instance, or European investors. And therefore, I believe that there's a balance between how non-transparent is the process and how many people can you actually get on board to make this more effective? So, I think this is a balance that needs to be calibrated or thought about.

COMMISSIONER FIEDLER: Yes, and I think it's -- it also strikes me as a bit of a political process. In other words, we have started the process and now should get others on board, but the -- perhaps starting the other way by negotiating with others about what the process should look like probably was deemed unwise. So, we provided a little bit of leadership on this question and now we'll see whether we can get any others to join us. Thank you. I'm done.

COMMISSIONER BOROCHOFF: Thank you.

Vice Chairman Cleveland?

VICE CHAIRMAN CLEVELAND: Thank you. Remarkable testimony. I appreciate everybody's contribution.

I have two questions: one for Ms. Kong and one for Dr. Petry.

Ms. Kong, as you know GAAP, FASB, whatever accounting measures you use, the assumptions and principles on cost and revenue disclosure and the viability of a business are designed to promote some measure of uniformity across the globe. You mentioned that -- and I don't want to mangle your words, but I think you mentioned something to the effect that how the PRC uses or applies the GAAP is very different than how the U.S. may apply it. And I'm interested in those differences because as we are exploring options in terms of clarification on reporting, I'm curious if when it comes to standards of accountability in accounting that there are discrepancies that are important to highlight. That's for you.

And then for Dr. Petry, you described the forthcoming opening of the financial sector starting in 2020 and that it was designed to facilitate the professionalization of the financial industry in China and legitimize -- I think your words were the transfer of intellectual property. And that's the benefit on the Chinese side. For foreign firms, they are driven by the prospect of access to markets. And so, they accept something of a; I think your words were lopsided arrangements.

I'm interested in whether or not there are risks as the financial markets open that we should be looking at, attending to, that are repeating past practices that the CCP and businesses have engaged in, and in particular, whether or not opening in the financial market will reinforce national champions and whether or not we would be drawn into unique risks related to distressed assets and the inability to properly price those distressed assets, since that seems to be where we're moving first.

So, Ms. Kong, if we could talk about if there are inconsistencies in GAAP or FASB or whatever the accounting measure is?

And, Dr. Petry, if you'd talk a little bit about the financial sector, I'd appreciate it. Thank you.

MS. KONG: Thank you very much for that great question. First, I want to just underscore that U.S. follows U.S. GAAP, U.S. Generally Accepted Accounting Principles. China has its own set of GAAP, which differs from U.S. GAAP in many aspects, but the general principles are the same. But to illustrate this maybe I can just give you a very specific example.

So I mentioned cash because I think all of us know what cash means, right? Well, the reality is -- is that in the U.S., a company can only recognize an asset on its balance sheet as cash if, for example, it is a commercial paper with at least A1P1 rating and it's easily liquid. And, in China there is a similar criteria, but A1P1 paper in China, as we've just talked about because of the ratings, may actually be issued by a corporate of much lesser credit quality. So, that's the first dimension: What is it?

Second, where does it sit? So, as a foreign investor in any onshore jurisdiction, you always have to figure out, okay, this is in an onshore Chinese bank account, but I'm buying the bond through an entity which is listed in the British Virgin Islands. The entity itself is a variable interest entity, a VIE structure, and therefore my ability sitting in the United States to attach these assets should there be any event of a default is very limited.

And so, the point here that I'm illustrating is definitely the case with places like China where -- and it's true in many foreign regions, by the way -- where we as the portfolio manager has actually to do a lot of analysis and read those footnotes to really understand what something as simple as cash is.

And then, last but not least, the component I mentioned about regulatory and legal risk, in order for a company to even pay me as a bond holder -- so the coupon itself has to be signed off by several government agencies because it's considered to be a foreign exchange transaction and the central bank plus SASAC have to actually provide sufficient quota for the company to do that.

And so, as you can see, something as simple as cash has many hurdles and sometimes defaults can actually be triggered by any one of these technical defaults.

VICE CHAIRMAN CLEVELAND: Thank you.

Dr. Petry?

Thank you very much. That was helpful.

DR. PETRY: Yes, thank you for these interesting questions. I think there was a slight misunderstanding. What I referred to with regard to the transfer of intellectual property and these lopsided arrangements that refer to joint ventures between Chinese financial firms and global financial firms. So, this changed a little bit in 2020 with the opening up of the Chinese financial sector so that a lot of U.S. investment banks could buy out their Chinese joint ventures and have fully owned operations in China. So, this is a bit different from the joint venture aspect.

But one important aspect to keep in mind here is that, yes, these openings were also negotiated as part of the trade negotiations, but actually they were already something that was being envisioned by the Chinese government. It was just a timeline that was moved forward by a year or half a year because they were actually quite confident that this opening up, or this further opening up of their financial sector, would not lead to a (audio interference) organization. So, you would not have U.S. firms dominating the Chinese market.

And so, the other aspect -- so this is one aspect which is the opening of China's markets and changing ownership structures of brokers and asset management companies within China. The other aspect is increasing portfolio investment inflows, and I think this is where you refer to the risks that are created thereby.

So, I mean for the first question whether this would reinforce national champions, to some degree, yes. I mean they would have more money invested in them. There has been a lot of research showing that companies that are included in an index will have a series of benefits such as a higher stock valuation that's also persistent over a long time and so on. So, I mean there will be benefits from this respect. And also, it's prestigious to have international investors for some of these national champions.

So, there is a limited benefit to national champions through portfolios flows, but actually strategic investments are much more important in that regard.

When it comes to the risks from distressed assets, et cetera, there is -- I would say this is rather small because, as Ms. Kong mentioned, Chinese corporate bonds have not been included into any of these bond indices yet. So, this is not of concern for these portfolio investors, at least for the large group of investors that follows these indices.

And when it comes to stocks, there might be a market downturn at some point, but I don't believe that -- it will be similar like in 2015. If you have a stock market downtown, the government will try to step in and save the day with a national team or however they will do it. So, I don't believe that the stock market in China will actually crash and remain at a very low level.

So, from this respect I don't see -- I think a lot of international investors see there won't be that much of a risk of investing into the Chinese stock market.

COMMISSIONER BOROCHOFF: Thank you very much. I'm going to take a place behind Chairman Bartholomew and call on her now.

CHAIRMAN BARTHOLOMEW: Thank you very much and thank you to all of our witnesses.

Ms. Kong, I want to address your final comments, too, and to say what's happening to Asian Americans, the attacks on Asian Americans across the country are abhorrent and to emphasize that the work we do, the concerns that we have are about the actions of the Chinese government, the Chinese Communist Party, not about the people of China. And I'd like to really draw that distinction.

I have a couple of general comments and then I guess a big picture question for all of you.

General comments are when we hear for example -- Ms. Kong, you note here that ownership by international investors is still relatively low. My concern always is we go from relatively low, so we shouldn't or don't need to do something to too big and we can't do something because it upsets the apple cart. So, I would just say that there is a reason to look at things when they are small and try to address the problems so that they don't grow bigger.

Dr. Petry, you talk about the need for us to work together, but it seems to me that one of the things that Xi Jinping and his government are really doing again is divide and conquer. I see the EU-China investment agreement as really a perfect example of that. And so, I'd like you to address how is it that we can work together at a time when we know that Beijing is going to do everything it can to pit one country against another, one industry against another? It's sort of going back to some old tactics.

But the bigger question I'd like to ask all of you -- Ms. Kong, I was amused -- I mean recognizing that a long-term horizon for the investment community is three to five years, but that's a really short term of course in the bigger picture of things. And I'd like you -- what I struggle with reconciling is the CCP wants investment coming in, they want investment in capital markets, but they don't want to cede control. There's a different kind of messaging that goes on. We all talk about this as China is capitalist, and yet at the same time the messaging that's going on to the party inside of China is that they are the grave diggers of capitalism.

So, if I could just ask you all to say where do you think this goes? I want to pull you out of the specifics that you talk about, but what happens? Where does this go? Is Beijing able to continue to balance competing things or what happens?

I'll start anywhere. Ms. Kong, you want to start?

MS. KONG: As a portfolio investor, we are never the controlling -- we never have a controlling say, whether it's in equities -- and certainly not in bonds. We have historically always been able to exert influence through integrating ESG into our investment process.

Your question actually goes way beyond ESG, right? Your question really goes to the heart of control and whether or not equity investors can directly influence through things like voter proxies and whether or not we'll come up against, right, resistance, right, when control actually goes to a certain point.

I think there's many shades of gray within in the investable universe in China. There are certainly companies that are very much privately-run, very much indistinguishable, right, when it comes to how its run from a corporate governance standpoint to a U.S. company, all the way to companies that are very opaque, non-transparent, and it's opaque even to the domestic investors. And so that gets to the heart to us of really investability, right?

We're very careful about knowing what we don't know. I think one of the key tenets of being a good portfolio manager is to be very humble and to know that there are times when there will be certain uncertainties that we're not going to be able to price in. And we have the luxury of being an active investor and holding actually a very small number of securities that we think gives our underlying clients the best risk-adjusted returns.

To your point about investment horizon, I used three years, but the reality is many of our portfolio holdings we've held for over five, ten years in our equities. In the bond space the maturities of our bonds just tend to be much shorter, so many of them actually mature in five years. So, this just reflects the actual term of the underlying instruments.

CHAIRMAN BARTHOLOMEW: Mr. Lysenko, we haven't heard from you for a little while.

MR. LYSENKO: Yes, I'd be pleased to take a minute and talk about this.

I view China as being a place of numerous inherent tensions, and we've seen these tensions tighten in the last several years. There's a tension between wanting to allow China's private markets to flourish, to allow capital to be allocated more efficiently, and between that and this desire from the top to maintain control and to have the leverage necessary to stamp out crises and to influence.

There's another obvious tension in the way that Beijing is orienting itself vis-á-vis international markets. Johannes mentioned earlier how that Stock Connect Program was really important in providing the impetus to allow Chinese shares to be added to international stock indices. What that represented was like Beijing giving up a little bit of control to allow the convertibility necessary to add these securities to the index. So, there's always this tension going on in China between domestic forces, foreign forces, wanting more control, letting free markets work to create better outcomes.

I don't have a crystal ball and I don't know how those inherent tensions are going to be resolved. I think that what is important for us is to realize that what we can control is our response to what Beijing is telling us it intends to do and what it's demonstrating its intentions are. So, it may be that this model of trying to add more state control and maintain China's growth potential and economic health turns out to be unsustainable. And maybe within five, ten, twenty years that unsustainability is going to force Beijing to change.

But in the meantime, what we can do is look at the types of distortions that Beijing's policies are introducing abroad and how our own domestic economic actors are responding to those distortions, both here and within China, and identify cases where those distortions are unacceptable to us and where we need to make changes.

If I could tell you definitively how this would all play out in five, ten, fifteen years, I would. I wish I could. I don't know, but that's what we do know and that's what we can control.

CHAIRMAN BARTHOLOMEW: Okay. Mr. Petry?

DR. PETRY: Thank you. Yes, I want to say that I really agree with Adam's statement right now in terms of the broader issues on the intentions of China and how we could deal with them. So, I wholeheartedly agree with him in that respect.

And with regard to your follow up question on to – that China divides and conquers, I think the very -- I mean from a strategic point of view, getting the U.K. on board is something that's very important. And they're not part of the agreement with the EU, so I mean strategically that makes sense. Also, because they're the second largest financial center after the U.S. So, that would make the investment restrictions much more effective even if you don't get the EU involved, for instance.

More generally, I think in order to tackle the China challenge, it's important to repair relationships with Europe which have been damaged in the last couple of years. And then you probably wouldn't see something such as the investment agreement. I mean you might see it, but there is -- you might have a chance to actually mediate the process a bit more if there was more of a working relationship between Europe and the U.S., which doesn't exist at the moment. Thank you.

CHAIRMAN BARTHOLOMEW: Thank you.

COMMISSIONER BOROCHOFF: That was a such a great question with great answers. I'm not going to ask another question. I'm going to thank the panel and the witnesses for this panel who gave such phenomenally interesting answers. And we will adjourn and be back at 2:00 p.m. Eastern.

(Whereupon, the above-entitled matter went off the record at 12:54 p.m. and resumed at 2:00 p.m.)

PANEL III INTRODUCTION BY COMMISSIONER JEFFREY FIEDLER

COMMISSIONER FIEDLER: Welcome back. This is our third panel and we will assess U.S. National Security Risks posed by investment in Chinese companies. First we'll hear from Mr. Jason Arterburn, Program Director at C4ADS. Then we'll hear from Nathan Picarsic, Co-founder of Horizon Advisory and Senior Fellow with the Foundation for the Defense of Democracies. And thirdly we'll hear from Emily Weinstein, Research Analyst at Georgetown Center for Security and Emerging Technologies. Thank you all for your testimony today, and I will remind you that you have seven minutes. And Commissioners each have five in questioning you. So Jason, can we start with you?

OPENING STATEMENT OF JASON ARTERBURN, PROGRAM DIRECTOR, C4ADS

MR. ARTERBURN: Great. Thank you to the Commission for the invitation to provide testimony in today's hearing. It is a privilege to represent our work at C4ADS on a topic of such importance. Today I have been asked to address an area of vital importance to national security and one that I believe that with the right approaches, we could be much better positioned to address: and that is the Chinese Government's cooption of what has been traditionally understood as private sector enterprises in the ways that it impinges on U.S. national security interests.

I would like to acknowledge that I provide this testimony amidst the wave of racially motivated violence against Asian Americans and Pacific Islanders, including the terrible tragedy in Atlanta this week. For those of us who work -- or, who are working to confront national security risks from China, it is more important than ever that we treat this challenge with the rigor, nuance, and vigilance that it requires, because imprecisely framing this issue may lead to ineffective policy responses at best, or contribute to continued violence that undermines our values, at worst.

In recent years there has been a significant amount of research on the key companies, universities, institutions, and government offices that are involved in China's military industrial base, and on how those enterprises have deliberately pursued China's national security interest around the world. I am indebted to this research, but for the purposes of my testimony today I would like to complement this existing body of work by setting those enterprises in the context of more recent changes in China's domestic political economy.

My goal here is to outline and draw attention to the more banal ways the United States and its allies are exposed to national security risks even in the absence of deliberate operations by the CCP. Specifically, I'd like to focus my remarks today on two key points. The first is that China's domestic political economy poses systemic national security risks to the United States and other liberal democracies with market-oriented economic systems. The second is that publicly available information will be indispensable in our efforts to address threats that emerge from China's commercial sector. That is because publicly available information can not only produce actionable insights about threats in China's corporate environment, but also can be cheaply collected and easily shared with the growing range of stakeholders who we need to help mitigate risk, whether they be new agencies in government, leaders in industry, at universities, or partners in allied countries around the world.

Now to my first point. China's political economy creates systemic national security risks in the United States because special deals between local governments and Chinese enterprises are an endemic feature of the commercial ecosystem, but the nature of that risk is difficult to define. Because China has weak formal market institutions, Chinese companies have relied on special deals with local governments in order to survive, compete, and grow in the domestic market. Scholars have described this special deals system as such: local governments who seek political achievements compete with other local governments to attract businesses to their region. To do so, they create protectionist and preferential policies, or provide access to capital. Private entrepreneurs that don't otherwise -- or private entrepreneurs accept special deals with local governments because they provide market protections that don't otherwise exist, and as those companies grow and pursue access in other local markets, they create new deals with other local governments.

Over three decades, this special deals system of public-private collusion has been one of the main driving forces behind China's growth. But as companies now pursue globalization, it creates two serious national security consequences for the United States and other local democracies with market-oriented economic systems. First, China's special deals system has given rise to massive, sprawling networks of companies with complex relationships to the state at multiple levels of governance. In fact, according to one study, the average size of the largest 100 conglomerates in China increased from 500 companies in 1995, to 15,000 companies in 2015. As a result, it is now difficult through equity ownership analysis alone to determine who ultimately controls a company, or to understand how different companies relate to one another within massive corporate networks.

Second, private enterprise has faced financial incentives to work closely with state owners and investors, which may lead to political exposure or entanglements whose national security implications are difficult to assess. Using corporate registration data, researchers at the University of Chicago assessed that while privately held capital in China has grown significantly as a proportion of China's economy over the last two decades, it has only done so for private investors who are proximate to the state in their commercial ventures. These findings suggest that while the Party-state may not directly control private investors, successful private investors may have varying degrees of political exposure, which may or may not ultimately pose a national security risk.

So in this context we face two key challenges in our effort to understand and respond to risk in China's commercial environment. The first is diagnostic, namely, how do we define the threat? How exactly does the party state relate to commercial enterprises or research institutes? And under what conditions can and can't the Party-state instrumentalize those enterprises to pursue its national security objectives?

The second is prescriptive, on how we develop a policy response. If risk is systemic, what generalizable heuristics can we use to reduce China's massive corporate and research environment into a manageable pool of only the highest risk entities for closer scrutiny and review. In this regard I argue that publicly available information will be indispensable in our ability to both diagnose the threats that emerge from China's commercial environment, and to prescribe tailored policy or enforcement responses.

In making this argument, I echo unclassified recommendations from the House Permanent Select Committee on Intelligence and their September 2020 China deep dive, which states that open-source information will be critical to keeping up with, expanding intelligence requirements on China, and in engaging a broader range of non-traditional intelligence consumers who have roles to play in risk mitigation.

While some have previously recommended to the Commission that the U.S. Government use open-source information more broadly, those recommendations have focused primarily on academic articles, Chinese policy documents, grey literature, and other sources of information that fall in the traditional open-source collection taxonomy. But there exists a tremendous amount of other data sources available in the public domain that can be collected cheaply at scale, which can provide valuable context about a company's relationship to the Partypstate. In my written testimony I provide significantly more detail about the ways the Party-state directly and indirectly participates in the commercial ecosystem. I also analyze how those forms of participation create observable indicators for policy makers and regulators who seek to proactively identify and mitigate risk from publicly available sources both at the industry and the company level.

But to use those new sources of data effectively, we will face technical, policy and cultural challenges. And to overcome them, I recommend the United States develop a national data strategy that is attentive to the increasing volume of high value, publicly available data sets from China. Examples of those data sets include Chinese corporate records that are free to access and contain detailed shareholder and director information, and a number of other sources that I outline in my testimony.

In addition to thinking about new sources of data abroad, our data strategy must also pay special attention to how we capture data at home, where even minor changes in how we record records can dramatically improve and accelerate the due diligence process. I look forward to continuing to engage with the community of scholars, policy makers, and practitioners who are working on this issue and using the data and technology tools at our disposal to pursue better answers to these difficult questions. Thank you.

PREPARED STATEMENT OF JASON ARTERBURN, PROGRAM DIRECTOR, C4ADS

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innovation for peace

Testimony before the U.S.- China Economic and Security Review Commission
Hearing on "U.S. Investment in China's Capital Markets and Military-Industrial Complex"

The Party-State in China's Military-Industrial Complex: Implications for U.S. National Security

Jason Arterburn
Program Director, the Center for Advanced Defense Studies

Friday, March 19, 2021

Introduction

China's domestic political economy exposes the United States to national security risks that our regulatory systems are not well equipped to address. China's commercial system blurs public and private distinctions, which have become even less meaningful under General Secretary Xi Jinping as the party-state has become resurgent in the commercial sector. While the U.S. policymaking community has largely acknowledged the risks of U.S. exposure to China's military-industrial base, our regulatory community still faces challenges in how to identify and mitigate risks. This is largely because "the analytical frameworks that many of us are using to understand China's economy are stuck in past paradigms" that do not reflect the "entirely new political-economic order" that China's system has produced as both an emergent and intentional phenomenon.[1] Experts like James Mulvenon, Anna Puglisi, William Hannas, Didi Kirsten Tatlow, and others have previously produced extensive analyses of China's technology acquisition ambitions and military-civil fusion system, which have provided the policymaking community with a comprehensive overview of China's technology acquisition system and its changes over the last decade. In this testimony, I seek to complement their work by contextualizing China's military-industrial base against the backdrop of recent changes in China's political economy, with the goal of developing a framework that policymakers and the business community can use to mitigate national security risk as General Secretary Xi Jinping continues to pursue illiberal governance reforms.

First, I will describe the mechanisms through which the Chinese party-state participates in and regulates the commercial sector as a way to both induce and coerce companies, universities, and others toward its industrial policy goals, with an emphasis on those organizations that are involved in China's military-industrial complex. I will review recent academic literature which shows that the top 100 conglomerates—including major state-owned enterprises—comprise on average 15,000 companies, and consider how that network scale and complexity may reduce the effectiveness of U.S. regulatory mechanisms like export controls, financial sanctions, or investment review.

Second, given the blurred distinctions between public and private, I will propose a framework that U.S. investors, universities, and others can use to assess the risk that a company may be co-opted to advance China's policy goals at the expense of U.S. national security interests. Because equity ownership analysis may be insufficient on its own to establish "instrumentality"[2] in China's massive, complex, and politically enmeshed corporate networks, my framework proposes the inclusion of other elements relevant to state-business relations in China's political economy. These other elements are, namely, the political exposure of commercial shareholders and officers, industry sensitivity within China, market structure, and compatibility of the business's commercial goals with the party-state's policy objectives.[3]

[1] Blanchette, J. (2020, December 1). *From "China Inc." to "CCP Inc.": A New Paradigm for Chinese State Capitalism*. China Leadership Monitor. https://www.prcleader.org/blanchette

[2] Definition: foreign instrumentality from 18 USC § 1839(1) | LII / Legal Information Institute. (2016). Cornell Law. https://www.law.cornell.edu/definitions/uscode.php?width=840&height=800&iframe=true&def_id=18-USC-1341432272-1439925515&term_occur=1&term_src=title:18:part:I:chapter:90:section:1831

[3] My proposed framework integrates theoretical contributions about state-business relations in China, most notably from Norris, W. J. (2016). *Chinese Economic Statecraft: Commercial Actors, Grand Strategy, and State Control* (1st ed.). Cornell University Press, and Rithmire, M. (2019, June, Revised 2021, January). *Going Out or Opting Out? Capital, Political Vulnerability, and the State in China's Outward Investment* (No. 20-009). Harvard Business School Working Paper. https://www.hbs.edu/faculty/Pages/item.aspx?num=56422

Third, I argue that publicly available information (PAI) should play a greater role in policy responses to national security risks from China's commercial sector, and I consider the challenges that government agencies may face in adopting it. This argument expands upon recent recommendations from the House Permanent Select Committee for Intelligence, which call for more effective use of open source information to address threats from China. Specifically, I argue that PAI and derivative products can replicate the integration of multiple traditional intelligence disciplines to provide actionable analysis on the China target that can be more easily disseminated within government and beyond—and at a significantly lower cost. By leveraging the full range of publicly available information relevant to national security threats from China, U.S. and allied governments can not only direct specialized collection resources toward more difficult intelligence requirements, but also engage more easily with the full range of government and industry stakeholders who will be necessary to confront a whole-of-society challenge from China's party-state.

1. **China's military-industrial complex, like the rest of China's economy, blurs the line between public and private in ways that pose systemic risks to U.S. national security interests.**

The blurred lines between public and private ownership in China's military-industrial complex reflect China's broader political economy, in which the commercial sector and government have entered "special deals" to pursue mutually beneficial value propositions.[4] Over three decades, companies have been dependent on government cooperation or endorsement to guarantee market protections they may not otherwise receive from formal institutions, and local governments have competed to attract private enterprise that would spur economic development toward policy targets.[5] While collusion between governments and private enterprise is common in countries without formal market institutions, Bai, Hsieh, and Song (2019) assess that this "special deals" system of partnerships around "high [state] capacity and private benefits" has been responsible for China's growth over the last three decades because of the broad availability of special deals in China and unusually high administrative capacity of the Chinese state.[6] As a result, when Chinese companies pursue globalization today, they do so with complex relationships to the Chinese party-state that defy simple categorizations as "state-owned" or "private."

As Chinese companies increasingly pursue commercial activities that impinge on U.S. interests, China's "special deals" system has created two serious national security consequences. First, China's commercial system has become exceedingly complex. In fact, the average size of the largest 100 conglomerates in China increased from 500 companies to more than 15,000 companies between 1995 and 2015, and among the top 1,000 conglomerates, the share of subsidiaries that are joint ventures with other firms has increased from 30% to 80%.[7] As a result, corporate network complexity makes it less straightforward to establish a company's intent through equity ownership analysis alone, as a company of interest may receive investments a mix of state- and non-state companies through multiple layers of holding companies.

[4] Bai, C.-E., Hsieh, C.-T., & Song, Z. M. (2019). Special Deals with Chinese Characteristics. *University of Chicago, Becker Friedman Institute for Economics Working Paper*, *2019–74*, 1–48. https://doi.org/10.2139/ssrn.3391506
[5] For a broader discussion of these trends, see ibid.
[6] Ibid
[7] Ibid, pp. 22-23

Additionally, because networks may be broadly diversified in their commercial activities, particularly in the case of major conglomerates, one company's industry involvement may not be generalizable across the whole network. For example, China Poly Group, a state-owned conglomerate whose subsidiary Poly Technologies is on the U.S. Department of Commerce Entity List for weapons proliferation, also trades in art and antiquities via its subsidiary Poly Culture.[8]

Second, private investors in China rely in part on state proximity for capital growth and productivity, which may expose them to political interests that are difficult to assess or measure. Using bulk Chinese corporate registration data, Bai et al. (2020) assess that while the share of privately held capital in China's economy has increased by 14.4% from 2000 to 2019, private entrepreneurs with no state connections have seen a *decrease in their holdings* over the same period.[9] These findings suggest that while the party-state may not directly control private investors, those investors are exposed to the party-state apparatus to varying degrees and may face economic incentives to align with the party-state's policy priorities. U.S. policymakers should seek to understand how closely a private company may be to the state, and if that proximity to the state has any significance to U.S. national security interests.

To this end, the next subsections consider the mechanisms through which the Chinese party-state engages with the commercial and research sectors in China as a way to both induce and coerce actors toward its policy objectives. These relationships are necessary considerations for those who wish to consider how investments may be directly or indirectly exposed to China's military-industrial ecosystem. Furthermore, they provide evidence that policy intended to mitigate national security risks from China may need to change in order to reflect the nature of state-business relations in China's political economy.

Direct Participation: State-owned Defense Contractors

State-owned enterprises (SOEs) advance policy objectives for the Chinese party-state by directing capital toward key sectors and spearheading policy initiatives both at home and abroad.[10] While commercial SOEs may lag behind privately-held companies in efficiency and productivity, they have been instrumental to China's ability to pursue key national priorities such as energy security and military research and development. By one estimate, China's SOEs collectively produce 4.5% of global GDP, which is greater than the GDP of the United Kingdom.[11] Ten defense SOEs directly under SASAC participate in trade fairs, collaborate in research with universities and key state labs, fund research, and make investments both domestically and abroad.[12]

[8] For an example of China Poly Group's complex relationship with the Chinese state, see Palmer, A. W. (2018, August 16). The Great Chinese Art Heist. *GQ*, *August 2018*. https://www.gq.com/story/the-great-chinese-art-heist

[9] Bai, C.-E., Hsieh, C.-T., Song, Z. M., & Wang, X. (2020). Special Deals from Special Investors: The Rise of State-Connected Private Owners in China. *National Bureau of Economic Research*, *Working Paper 28170*. https://doi.org/10.3386/w28170

[10] In some cases, the Chinese government has attempted to use international investments from its SOEs as political leverage to pressure policymakers in third countries to accept investments or partnerships for other national champions (like Huawei). For example, see Millard, R. (2020, June 13). Boris Johnson faces losing billions if he bans Huawei in the UK. *The Telegraph*. https://www.telegraph.co.uk/business/2020/06/13/boris-johnson-faces-losing-billions-bans-huawei-uk/

[11] Baston, A. (2021, February 16). *Confronting Chinese State Capitalism* [Video, timestamp 30:13]. Center for Strategic and International Studies. https://www.csis.org/events/confronting-chinese-state-capitalism

[12] The ten central state-owned defense corporations are China Aviation Industry Corporation (AVIC), Aero Engine Corporation of China (AECC), China Electronics Technology Group Corporation (CETGC), China Electronics Corporation (CEC), China South Industries Group Corporation, China North Industries Group Corporation, China State Shipbuilding Corporation (CSSC), China

The Chinese state directly owns and manages SOEs at the central and local level. For central SOEs, the Chinese Communist Party (CCP) directly controls executive leadership appointments and promotion and in some cases, will appoint foreign nationals to SOE boards.[13] [14] Wendy Leutert (2020) notes that General Secretary Xi Jinping has further institutionalized CCP control over central SOEs by increasing dual appointments for SOE leadership to CCP secretary and SOE managerial positions to "constrain managerial independence by bringing SOE leadership into the political realm of the CCP"[15]; and increasing the incidence of personnel rotation among SOE leadership as a means of reducing the risk of "departmentalization," i.e. the risk of specific actors becoming too entrenched than the CCP.[16]

China's central SOEs hold equity stakes in thousands of companies through complex, layered investment networks, which include other state-owned enterprises, publicly traded companies, privately held companies, and joint ventures with foreign businesses. Using Chinese corporate registration data, C4ADS mapped all subsidiaries or investment recipients within five degrees of SASAC.[17] **(Appendix 1: Network Visualization.)** SASAC's subsidiary and investment networks illustrate a key challenge with commercial network complexity and establishing national security risk in the Chinese commercial context. While central SOEs may be easy to classify as an agent of the state, it is less clear what precisely the national security significance of a minority equity stake in a subordinate company may ultimately be, particularly given the significant volume of investments that state-owned enterprises make in the Chinese economy.

Direct Participation: Financial Markets

In order to advance its industrial policy, the party-state engages in domestic and foreign capital markets directly through state-owned banks, state-owned asset management companies, and, more recently, government-guided investment funds (GGIFs). Similarly, China's policy banks, sovereign wealth funds, and state-run investment vehicles may help to make acquisitions. Recent innovations in financial markets are particularly relevant to understanding the risks that U..S investors may face from China's military-industrial complex.

Under General Secretary Xi Jinping, Chinese companies—including those that support China's military—have increasingly gained access to international financial markets by listing on stock exchanges in Shanghai, Shenzhen, and Hong Kong. In July 2019, the Shanghai Stock Exchange launched the Science & Technology Innovation Board ("STAR Market") in an effort to give Chinese technology companies greater access to foreign capital markets. The STAR Market is the most valuable stock market in Asia and has provided a significant boost to Chinese technology companies. A July 2020 report from U.S. Securities & Exchange Commission's Division

Aerospace Science and Technology Corporation (CASC), China Aerospace Science and Inudstry Corporation (CASIC), and China National Nuclear Corporation (CNNC).

[13] Leutert, W. (2020). *State-Owned Enterprises in Contemporary China*. Indiana University Working Paper. https://static1.squarespace.com/static/578f7e4ac534a5c08c478743/t/5e781bb364f35a2e28936903/1584929716451/State-Owned+Enterprises+in+Contemporary+China_Leutert+%28*Accepted+Version%29+.pdf

[14] de Graaff, N. (2019). China Inc. goes global. Transnational and national networks of China's globalizing business elite. *Review of International Political Economy*, *27*(2), 208–233. https://doi.org/10.1080/09692290.2019.1675741

[15] Leutert, W. (2020). p. 8.

[16] Leutert, W. (2018). Firm Control: Governing the State-owned Economy Under Xi Jinping. *China Perspectives*, *2018*(1–2), 27–36. https://doi.org/10.4000/chinaperspectives.7605

[17] C4ADS sourced corporate registration data from a third-party provider, which collects the data from the Chinese government's corporate registry.

of Economic & Risk Analysis found that at least five Chinese companies exposed to U.S. investors via the MSCI China A Index are on either the U.S. Department of Commerce's Entity List or designated by the Federal Communications Commissions as a "national security threat."[18] A November report from RWR Advisory Group similarly found that more than 100 subsidiaries of companies that the U.S. Department of Defense designated for associations to the People's Liberation Army (PLA) are exposed to U.S. investors.[19] By virtue of their presence in U.S. index funds, Chinese companies that may pose a serious national security risks are able to access significant pools of U.S. capital, including from some of the country's largest public pension funds.

Domestically, the Chinese government has increasingly used government guided investment funds (GGIFs) to drive capital toward companies that support its policy goals. To do so, central and local government entities establish investment funds with a defined purpose in line with party-state policy objectives and solicit additional capital investments from private investors. Those funds then direct capital toward companies and projects that support the party-state's development objectives. As of February 2021, leading Chinese third-party aggregator of private capital markets data estimates that there are 1,741 GGIFs operating in China.[20] Unlike venture capital funds in the United States, only 27% of GGIFs are designed to support startups and early stage innovation.[21] [22] Instead, 62% of GGIFs are "industry funds" created to support the growth of targeted strategic industries.[23] For example, following government push for "indigenous innovation" for "core technologies,"[24] the number of registered companies working in semiconductors increased by 52% between 2018 and 2020, and the volume of investment by more than 800% over the same period increased.[25] Rui Ma, a technology entrepreneur who first noted these trends, attributes to a combination of government capital, the STAR Market, talent recruitment, and other preferential policies.[26]

Alongside more traditional fiscal policy mechanisms, the Chinese party-state can use these financial market tools to direct private capital toward party-state industrial policy objectives. Perhaps the clearest case is China's semiconductor industry, which saw a quadrupling of equity investments from 30 billion RMB (4.6 billion USD) to 140 billion RMB (21.5 billion USD) between 2019 and 2020.[27] One GGIF alone, the China Integrated Circuit Industry Investment Fund, has made investments in 63 different companies in the industry since 2014.[28] By providing cheap capital that enables semiconductor companies to make investments in research and expansion, the

[18] U.S. Securities and Exchange Commission. (2020, July). *U.S. Investors' Exposure to Domestic Chinese Issuers*. https://www.sec.gov/files/US-Investors-Exposure-to-Domestic-Chinese-Issuers_2020.07.06.pdf
[19] RWR Advisory Group, LLC. (2020, August). *Publicly Traded Chinese Military Companies (and Affiliates) as Designated by the U.S. Department of Defense*. https://www.rwradvisory.com/wp-content/uploads/2020/11/RWR_Pentagon-List_Affiliates.pdf
[20] Chinese third-party aggregator of private capital markets data
[21] Chinese third-party aggregator of private capital markets data
[22] Pan, F., Zhang, F., & Wu, F. (2020). State-led Financialization in China: The Case of the Government-guided Investment Fund. *The China Quarterly*, 1–24. https://doi.org/10.1017/s0305741020000880
[23] Chinese third-party aggregator of private capital markets data
[24] *习近平：自主创新推进网络强国建设-**新**华网*. (2018, April 21). Xinhuanet. http://www.xinhuanet.com/politics/2018-04/21/c_1122719810.htm
[25] Chinese third-party Chinese corporate registry aggregator and Ma, R. [@ruima] (2021, February 26). *More on semiconductors in China: Number of semiconductor companies registered in China from 2000-2020. Investment was just $1Bn in 2018, grew 6x in 2019, just 1H 2020 was $8.4Bn, the highest of any sector.* [Tweet] Twitter. https://twitter.com/ruima/status/1365359788029145088
[26] Ma R. (2021, February 26)
[27] 36氪的朋友们. (2021, January 18). *2020**年国内半**导体行业投资金额超1400亿元，为史上最多一年_详细解读_**最新**资讯_热点事件_36氪*. 36kr.Com. https://www.36kr.com/p/1059953231336069
[28] Chinese third-party aggregator of private capital markets data

party-state also helps these companies access broader sources of capital. China's most successful semiconductor company, Semiconductor Manufacturing International Corporation (SMIC), was able to IPO on Shanghai's STAR Market in July 2020, in large part thanks to significant capital injections that it had previously received from the aforementioned China Integrated Circuit Industry Investment Fund, a state-owned telecommunications company (Datang Telecom Group), and CNIC Corporation, a state-owned sovereign wealth fund founded to operate in global—not domestic—markets.[29] In other words, by drawing on capital from multiple state-backed sources—a GGIF, a SOE, and a sovereign wealth fund—SMIC was able to gain the stability it needed to access public capital through an IPO. By injecting public capital into private capital markets, China's party-state has helped the number of semiconductor companies to grow five-fold since 2014.[30] However, these capital injections also advance state objectives by enriching opportunistic executives, as with Wuhan Hongxin Semiconductor Manufacturing.[31]

Direct Participation: Universities & Talent

China's party-state directly participates in domestic and international research and development (R&D) through universities, their holding companies, and talent recruitment programs. Chinese universities may expose the United States to national security risk through what scholar Elizabeth Perry has described as "patterns of educated acquiescence," through which universities buttress the party-state's authoritarian system by making political concessions in exchange for certain benefits that the state provides.[32] While some universities like the Seven Sons of National Defense (国防七子) emerge directly from China's military-industrial complex and therefore can be easily characterized as a national security risk, other universities may support China's military R&D programs in less straightforward ways.[33] As one example, the Australia Strategic Policy Institute (ASPI) has identified and profiled more than 100 additional Chinese universities that work to varying degrees with China's military and security apparatus, e.g. through technology innovation parks or partnerships with state laboratories.[34]

Chinese universities, including but not limited to those involved in China's military research and development programs, also have holding companies that make significant commercial investments both domestically and internationally. Corporate registry filings indicate that Chinese universities maintain significant ownership interests in mainland China-based companies that appear to operate primarily in the research and development as well as consulting services sectors.[35] For example, Chinese corporate records report that Harbin Institute

[29] Semiconductor Manufacturing International Corporation. (2020). *Semiconductor Manufacturing International Corporation: Annual Report 2019*. http://www.smics.com/uploads/e_00981ar-20200418.pdf
[30] Cajing. (2021, January 29). 中国半导体行业会不会迎来整合潮？ | 新年展望. Finance.Sina.Com.Cn. https://finance.sina.com.cn/roll/2021-01-29/doc-ikftssap1761247.shtml?cref=cj
[31] Kevin Xu profiled the case of Wuhan Hongxin Semiconductor Manufacturing, describing it as China's "semiconductor Theranos." See Xu, K. (2021, March 4). *China's "Semiconductor Theranos": HSMC*. Interconnected. https://interconnected.blog/chinas-semiconductor-theranos-hsmc/
[32] Perry, E. J. (2019). Educated acquiescence: how academia sustains authoritarianism in China. *Theory and Society*, *49*(1), 1–22. https://doi.org/10.1007/s11186-019-09373-1
[33] As James Mulvenon notes, civilian universities relate to the party-state apparatus in ways that do not reflect the same relationship as in the United States with the Department of Education. For example, the Chinese Ministry of Education appoints university leaders and approves budgets. For a greater exploration of these ideas, see Mulvenon, J. (2020). *China's Quest for Foreign Technology*. pp. 301-302 (W. C. Hannas & D. K. Tatlow, Eds.). Routledge.
[34] *Chinese Defence Universities Tracker—Home*. Chinese Defence Universities Tracker. https://unitracker.aspi.org.au/
[35] Chinese third-party aggregator of corporate registry data

of Technology (哈尔滨工业大学), one of the Seven Sons of National Defense, maintains direct or indirect ownership interests in approximately 1,000 China-based companies and owns a 50-percent or greater ownership interest in approximately 50 entities.[36] These subsidiary companies support China's military-civil fusion and technology transfer efforts through "legal, illegal, and extralegal"[37] means both domestically and abroad.

For example, Chinese corporate registration documents indicate that Tsinghua University Holding Company has a controlling stake in TusPark, a company that builds technology parks domestically and abroad. TusPark in turn has investments in 65 companies, including the National Military-Civil Fusion Industry Integration Fund and Beijing Highlander Technology.[38] In an example of illicit technology transfer, Department of Justice indictment filings from 2019 indicate that Beijing Highlander Technology attempted to acquire U.S. Navy submarine rescue technology for the PLA Navy "through a structured scheme using several front companies" abroad.[39]

Certainly, university investments in related organizations are not necessarily indicative of illegal or illicit technology transfer operations. Moreover, the national security significance of a university's stake in companies remains uncertain, given the extent to which university-affiliated holding companies participate in the global economic system. Future research should examine the relationship between China's defense-affiliated universities and companies in China, and consider how those companies may expose the United States and allies to China's military-industrial complex in ways that undermine national security interests.

Beyond universities and their companies, the Chinese government also coordinates global talent recruitment programs that target Chinese and foreign nationals for professional opportunities at Chinese universities and companies operating in priority sectors ranging from agriculture to biotechnology.[40] As Jeffrey Stoff notes in *China's Quest for Foreign Technology*, "China's talent recruitment programs, of which there are hundreds, are run at national, provincial, municipal, and even institutional levels, and are woven into government and [Chinese Communist Party] organs, state-owned enterprises, defense research and academic institutions, national laboratories, 'private' industry, domestic and overseas 'NGOs,' and global diaspora organizations."[41] China's talent programs—which recruit Chinese and foreign nationals alike—do not necessarily constitute illegal activity, and recent criminal prosecutions against Asian American academics in the United States have sparked debate about how the policy tools currently available to address illicit technology transfers through participation in talent programs may not be adequately designed and risk prosecutorial overreach and racial profiling.[42]

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[36] Chinese third-party aggregator of corporate registry data
[37] *China's Quest for Foreign Technology*. p. 7 (W. C. Hannas & D. K. Tatlow, Eds.)
[38] Chinese third-party aggregator of corporate registry data
[39] USA v. Viau (2019), Criminal No. 2019-0009 (D.D.C. 2019), and United States v. OCEANWORKS INTERNATIONAL CORPORATION (2019), Criminal No. 2019-0304 (D.D.C. 2019) accessed through PACER.
[40] CSET maintains an expansive database of known Talent Recruitment Programs. For more information, see Weinstein, E. *Chinese Talent Program Tracker*. Center for Security and Emerging Technology. https://chinatalenttracker.cset.tech/
[41] *China's Quest for Foreign Technology*. p. 39 (W. C. Hannas & D. K. Tatlow, Eds.)
[42] Redden, E. (2021, March 2). *Reconsidering the 'China Initiative': Criminal initiative targeting scholars who allegedly hid Chinese*. Inside Higher Ed. https://www.insidehighered.com/news/2021/03/02/criminal-initiative-targeting-scholars-who-allegedly-hid-chinese-funding-and

Indirect Influence: Interlocking Private Business in Political Institutions

China's party-state co-opts business leaders into formal political institutions, including but not limited to the Chinese Communist Party, the Party Congress, the People's Congress, and the People's Political Consultative Conference at all levels of administrative governance. At the national level, the China People's Political Consultative Conference (CPPCC) has a constituent committee that functions as a national chamber of commerce, called the All-China Federation of Industry & Commerce (ACFIC). The CCP's United Front Work Department established ACFIC in 1953 to promote the Party's interests among industrialists in China, and was revived in 1979 to implement the party-state's vision of economic reform and opening via both state-owned and private enterprises.[43] Today, ACFIC functions as a formal institutional channel for private companies to lobby the government within the party-state apparatus, and research on successful policy proposals from ACFIC between 2009 and 2016 indicates that private business leaders' "policy influence stems from their political embeddedness rather than any efforts that challenge the party-state."[44] One previous study found that for 95 of the top 100 private firms and 8 of the top 10 internet companies, the founder or the de facto controller was currently or formerly part of the People's Congress or the People's Political Consultative Conference.[45] C4ADS research also indicates that some members in ACFIC leadership and on ACFIC subcommittees also have familial connections to Chinese Communist Party elites, worked previously in the People's Liberation Army, or participate in ACFIC in their capacity with the Ministry of Public Security, United Front Work Department, or other government organizations. Forthcoming C4ADS analysis also indicates that ACFIC members control companies with substantial overseas investments, which have not been systematically examined for their possible national security implications to date. While CCP membership may not alone be a significant signal about a person's political alignment with the party-state given the number of CCP members and range of non-political incentives for joining, participation in political institutions that formally comprise the Chinese polity—where participation is circumscribed—indicates a greater degree of political exposure to the party-state apparatus.

Indirect Influence: Industrial Associations & Party Committees

Industrial associations provide the Chinese party-state with a mechanism for extralegal influence over companies in the private sector. Milhaupt and Zheng (2016) note that industrial associations emerged from supervising ministries that were dissolved but have retained many of the institutional functions of their predecessor organizations, including but not limited to addressing foreign anti-dumping charges, coordinating trade fairs, mediating trade disputes, and others. [46] [47] The All-China Federation of Industry & Commerce directly oversees 31 industrial associations including in fields such as agriculture, energy, cosmetics, real estate, and more.[48] In September 2020, the Chinese Communist Party issued new guidance on strengthening the

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[43] Huang, D., & Chen, M. (2020). Business Lobbying within the Party-State: Embedding Lobbying and Political Co-optation in China. *The China Journal*, *83*, 105–128. https://doi.org/10.1086/705933

[44] Huang, D., & Chen, M. (2020)

[45] Milhaupt, C. J., & Zheng, W. (2015). Beyond Ownership: State Capitalism and the Chinese Firm. *The Georgetown Law Journal*, *103*(665), 665–722. https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1693&context=facultypub

[46] For background on industrial associations and their relationship to the Chinese party-state, see Milhaupt, C. J., & Zheng, W. (2015), p. 686

[47] Cogan, B. M. (2011, September 6). *In Re Vitamin C Antitrust Litigation, 810 F. Supp. 2d 522 (E.D.N.Y 2011)*. CourtListener. https://www.courtlistener.com/opinion/2147703/in-re-vitamin-c-antitrust-litigation/?q=cites%3A184756

[48] *All China Federation of Industry and Commerce*. Acfic.Org.Cn. http://www.acfic.org.cn/zzjg_327/

role of the CCP in the private sector, calling for the United Front Work Department to strengthen Party leadership of private industry by bringing private entrepreneurs into ACFIC and industrial associations.[49] As Milhaupt and Zheng (2016) note, China's extralegal involvement in the commercial sector via industrial associations differs from state participation in other countries because they enforce rules without the clear legal delineation or neutrality that would protect a company's market operations from excessive or inconsistent state encroachment.[50]

Party committees at companies also serve to provide the party-state with an extralegal means of corporate influence and control. State-owned enterprises, publicly-listed companies and banks are legally required to have party committees, which are intended to influence companies toward CCP policy priorities.[51] While private companies are not necessarily required to have such committees, the number of those that do is growing. ACFIC survey data indicate that 48.3% of private firms in China have party committees, according to analysis conducted by Neil Thomas at the Paulson Institute.[52] On average, there has been a 2.1% increase in the number of private firms with reported party committees over Xi Jinping's tenure, which will likely continue to rise given the CCP's priority on the subject.[53] The survey data also indicate that party organizations are more common at bigger companies.[54] The China Securities Regulatory Commission requires that all companies listed on Chinese stock exchanges establish Party committees and provide the "necessary conditions" for Party activities.[55]

In sum, China's party-state apparatus interacts with companies in a networked corporate environment to support its military-industrial base through both formal and informal mechanisms. These include appointing and managing leadership at state-owned enterprises, gatekeeping access to financial and capital markets, managing universities with significant commercial activities, co-opting private sector executives in formal political institutions, and coordinating enterprise through industry associations and party committees. While those mechanisms do not guarantee full control over companies, they provide a range of tools to coerce or induce companies toward its policy objectives in ways that are both similar to and distinct from mechanisms for state-business relations in countries like the United States. To properly assess national security risks for engagement with a Chinese enterprise, U.S. investors and policymakers must therefore consider the unique features of China's political economy.

2. **A framework for assessing U.S. national security risks in Chinese companies should include not only equity ownership analysis but also attention to the conditions of China's domestic political economy that may render companies vulnerable to party-state co-option.**

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[49] *Opinion on Strengthening the United Front Work of the Private Economy in the New Era*. (2020, September 15). Gov.Cn. http://www.gov.cn/zhengce/2020-09/15/content_5543685.htm
[50] Milhaupt, C. J., & Zheng, W. (2015), p. 685
[51] See Article 19, *COMPANIES LAW OF THE PEOPLE'S REPUBLIC OF CHINA ORDER OF THE PRESIDENT OF THE PEOPLE'S REPUBLIC OF CHINA No. 42*. (2005, October). International Labour Organization. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/92643/108008/F-186401967/CHN92643%20Eng.pdf
[52] Thomas, N. (2020, December 16). *Party Committees in the Private Sector: Rising Presence, Moderate Prevalence*. MacroPolo. https://macropolo.org/party-committees-private-sector-china/?rp=e
[53] Thomas, N. (2020, December 16)
[54] Ibid
[55] Blanchette, J. (2019, April 23). *Against Atrophy: Party Organisations in Private Firms*. Made in China Journal. https://madeinchinajournal.com/2019/04/18/against-atrophy-party-organisations-in-private-firms/

By understanding the direct and indirect ways that the party-state relates to companies in China, we can develop a framework for assessing the risk that a company's commercial activities may advance China's national security interests at the expense of the United States. My framework draws upon theory developed by William Norris to understand the conditions under which the Chinese party-state can successfully conduct economic statecraft, and by Meg Rithmire to disaggregate the logics by which Chinese companies pursue globalization. In this framework, I emphasize signals that are observable in public records and could therefore be used as generalizable heuristics for risk assessments by the range of U.S. companies, investors, universities, and others exposed to national security risk from China.[56] Specifically, U.S. policymakers should consider the following:

A. Party-state equity for financing
B. Political exposure
C. Industry sensitivity
D. Market structure, and
E. Goal compatibility between the company and the party-state.

Each element is considered in turn below.

A. Party-state equity or financing

While not sufficient in isolation, equity ownership analysis can provide information about how a company relates to the party-state and the mechanisms through which the party-state may co-opt the company to advance its policy interests.[57] First, policymakers should use publicly available corporate registry documents to determine whether or not the company is a state-owned enterprise. If so, U.S. law classifies those enterprises as a "foreign instrumentality," even as the company may operate with both market and policy incentives.[58] If the company is not a state-owned enterprise, policymakers should assess whether state-owned entities (like government-guided investment funds) may have taken equity stakes in the company. Bai et al. (2020) note that most equity investments by state-owned companies are not controlling stakes.[59] Public Chinese corporate records contain shareholder information and can be accessed for free, but websites are often unreliable to access and require Mandarin proficiency. Additionally, many beneficial ownership records in the United States, like U.S. Securities & Exchange Commission disclosure forms, do not include company or person names in Chinese, which can vary significantly from the English or Romanized name and therefore limit an analyst's ability to conduct comprehensive due diligence using Chinese public records.

B. Political exposure

[56] Norris, W. J. (2016) and Rithmire, M. (2019, June, Revised 2021, January)
[57] Norris, W. J. (2016) describes "reporting relationship" as a key variable to assess in understanding how well the Chinese party-state may be able to co-opt a company to pursue its policy objectives. While related in some respects, I emphasize here a financial relationship because it may indicate formal mechanisms of reporting and control between the CCP and a company, and because equity stakes are visible in most corporate disclosure documents available to investors. I include extralegal mechanisms for reporting between companies and the CCP under the "political exposure" variable.
[58] Definition: foreign instrumentality from 18 USC § 1839(1) | LII / Legal Information Institute. (2016).
[59] Bai, C.-E., Hsieh, C.-T., Song, Z. M., & Wang, X. (2020). Special Deals from Special Investors: The Rise of State-Connected Private Owners in China. *National Bureau of Economic Research*, *Working Paper 28170*. https://doi.org/10.3386/w28170

While the political enmeshment of a company's officers may be difficult to assess, policymakers and regulators should determine whether or not a company's shareholders, directors, or officers concurrently hold leadership positions in Chinese party or government institutions, on corporate Party committees, or at Chinese industrial associations.

While Chinese Communist Party (CCP) membership may be a weak signal in China given the ubiquity of the party and range of incentives that may exist for CCP membership, business leaders that participate in the People's Political Consultative Conference (which exists at all levels) may be at increased risk of political enmeshment with the Party, given that such membership is an invite-only institution designed to connect the Party with private business. Similarly, regulators should determine whether individuals participate in the People's Congress or serve in leadership positions with the Party or its constituent Congress/committees. Membership lists are often public for PPCCs and PCs but do not always contain the personally identifiable information required to disambiguate person identity across multiple data sources. Government organizations and financial regulators should ensure that their lists of Politically Exposed Persons (PEPs) in China include membership for these organizations, which will better support efforts to counter both kleptocracy and Chinese economic statecraft through business enterprises. Ideally, Chinese PEP lists would also include family members and associates, as factional politics remain a key feature of China's domestic political economy and contextualize the relationship between a business and the state.[60]

Because Party committees play a key role in corporate governance in China, policymakers should require that Party committee leadership is included in corporate disclosures related to beneficial ownership when investing in the United States. Party committee information is rarely public, including in Chinese corporate ownership records. Future research should seek to derive other metrics, like firm size or investment density, that could provide more robust empirical indicators about the degree to which a Chinese company is politically enmeshed within the party-state apparatus.

C. Industry sensitivity

Certain industries in China may be subject to greater party-state interest or scrutiny in China. For example, China has identified specific technologies like semiconductors and biotechnology as priorities for investment and development, and industries like real estate development need close regulatory attention.[61] If a Chinese enterprise is involved in a priority sector, then it may face market and political incentives to align with the party-state's policy priorities. In his work on Chinese economic statecraft, William Norris (2016) observes that unity of the state across all levels of government is a critical factor in whether or not the Chinese government can successfully instrumentalize companies toward its policy objectives.[62] Given this insight, policymakers and investors should pay particular attention to the Chinese party-state's stated

[60] For example, the *Wall Street Journal* reported that General Secretary Xi Jinping personally intervened in scuttling Ant Group's Shanghai IPO in part because it would have enriched his political rivals. See Wei, L. (2021, February 16). China Blocked Jack Ma's Ant IPO After Investigation Revealed Likely Beneficiaries. *The Wall Street Journal*. https://www.wsj.com/articles/china-blocked-jack-mas-ant-ipo-after-an-investigation-revealed-who-stood-to-gain-11613491292

[61] Jim, C. (2020, September 22). China's property developers seek to dodge new rules with shift of debt off balance sheets. *Reuters*. https://www.reuters.com/article/uk-china-property-debt-analysis/chinas-property-developers-seek-to-dodge-new-rules-with-shift-of-debt-off-balance-sheets-idUSKCN26C38F

[62] Norris, W. J. (2016)

policy priorities, which may create national security risks across certain sectors of the Chinese economy.

Other data points in public records may also provide indication that a company's commercial activities align with core Chinese national security priorities. For example, if a company participates in state-sponsored talent programs, the company may have received some degree of endorsement that its commercial activities advance party-state priorities. Similarly, if the company has authorizations to produce military equipment and/or dangerous materials, or regularly accepts/engages in procurement tenders for the military, then it may have a commercial dependency on China's military-industrial base that incentivizes alignment with Party priorities. Because publicly traded companies undergo close regulatory scrutiny, Chinese companies listed on domestic exchanges—particularly under concept stocks dedicated to national policy priorities like "military-civil fusion" or on dedicated exchanges like China's technology-focused STAR Market—may warrant additional scrutiny from U.S. investors and policymakers to mitigate risk of exposure to China's military-industrial base.

D. Market structure

Norris (2016) notes that market structure – that is, the relative amount of resources or expertise between the state regulators and companies – has also been a key factor in cases when the Chinese party-state has been able to instrumentalize companies toward its policy objectives. In other terms, the Chinese party-state cannot as easily manipulate a firm when the number of companies under its purview or degree of technical expertise required for oversight and regulation are high. At the sectoral level, U.S. policymakers and regulators should therefore consider relationship of certain segments in China's economy to the authorities responsible for overseeing it as one variable among several in assessing the risk that a company may be co-opted to advance policy initiatives. At the company level, policymakers and regulators should consider the extent to which a company's commercial success or growth priorities are dependent on market access in China, which may also create market incentives for political alignment with Chinese party-state policy objectives.

E. Goal combability[63]

Finally, regulators should consider the extent to which a company's commercial goals do or do not align with the party-state's policy goals. Meg Rithmire (2020) theorizes different logics by which Chinese companies may pursue globalization, which in turn produce different relationships between the business and the state: "tactical capital," which seeks political prestige or power for managers and/or the Chinese state; "competitive capital," which pursue revenue and/or profit abroad; and "crony capital," which seek capital accumulation and refuge from the state.[64] While companies may reasonably exhibit qualities across each bucket, regulators can improve their understanding of national security risk by considering the extent to which a company's economic incentives align naturally with party-state objectives, broadly defined.

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[63] Several academics have previously called for attention to goal compatibility between Chinese businesses and the state. For examples, see Norris, W. J. (2016) and Rithmire, M. (2019, June, Revised 2021, January)

[64] Rithmire, M. (2019, June, Revised 2021, January)

While these five variables may be useful as generalizable heuristics for determining areas where policy attention should be most seriously focused, policymakers and investors should resist the urge to classify Chinese enterprises on a binary of "high" or "low" risk, as these variables can change over time. While "high risk" classifications may be appropriate in some cases (e.g. with Chinese state-owned defense contractors) it may be counterproductive in others, as it may undermine consensus among stakeholders looking to mitigate risk from China and the development of a targeted policy response around the areas in which risk is most acute. Because the nature of risk is dependent on threat, vulnerability, and consequence, risk assessments are best executed on a case-by-case basis, and the heuristics above can help policymakers or investors reduce the plane of scrutiny to a more manageable scope to conduct a more comprehensive investigation. Additionally, by considering these features as useful indicators of risk, policymakers can determine where disclosure or reporting requirements in the U.S. system (e.g. corporate beneficial ownership) can be reformed to improve the government's ability to identify risk more proactively.

3. **Publicly available information is an essential yet underused resource in contextualizing national security risk within the Chinese corporate environment.**

Beyond more effectively collecting and exploiting data in the United States, the U.S. government can improve its ability to mitigate national security from China by more effectively exploiting publicly available datasets in the Chinese data environment. In September 2020, following a two-year review of the U.S. intelligence community's (IC) competencies and readiness with respect to China, the House Permanent Select Committee for Intelligence (HPSCI) found that "the United States' intelligence community has not sufficiently adapted to a changing geopolitical and technological environment increasingly shaped by a rising China."[65] Among its unclassified findings, HPSCI stressed that the importance of non-traditional customers in receiving intelligence products related to China and the "indispensable" value that open source intelligence can play for a target whose threats to the United States transcend traditional "hard" national security questions like military capabilities.[66]

While several experts have previously recommended to the Commission that the U.S. government establish an open source center to better disseminate Mandarin-language materials to the policymaking community, most recommendations have focused attention on data sources that are within the traditional open source intelligence (OSINT) taxonomy, such as academic literature, news media, and policy documents.[67] However, there exists a significantly broader range of high-value sources of publicly available information that can provide actionable information about national security threats from China, which should also be more effectively exploited. In today's data environment, publicly available information (PAI) can inform analytic products that replicate the integration of multiple traditional intelligence disciplines and are free from classification restrictions that slow or inhibit dissemination across the

[65] House Permanent Select Committee on Intelligence. (2020). *The China Deep Dive: A Report on the Intelligence Community's Capabilities and Competencies with Respect to the People's Republic of China*. https://intelligence.house.gov/uploadedfiles/hpsci_china_deep_dive_redacted_summary_9.29.20.pdf
[66] Ibid
[67] For example, see Greitens, S. C. (2021, January). *Internal Security & Grand Strategy: China's Approach to National Security under Xi Jinping*. U.S.-China Economic & Security Review Commission. https://www.uscc.gov/sites/default/files/2021-01/Sheena_Chestnut_Greitens_Testimony.pdf, or Fravel, M. T. (2021, January). *Testimony before the US-China Economic and Security Review Commission Hearing on "US-China Relations at the Chinese Communist Party's Centennial."* U.S.-China Economic & Security Review Commission. https://www.uscc.gov/sites/default/files/2021-01/M_Taylor_Fravel_Testimony.pdf

government interagency, with industry stakeholders, or with partners internationally. Additionally, PAI can support actionable analysis at a significantly lower cost to help the IC direct its more expensive technical resources toward the most difficult intelligence requirements. Examples of publicly available datasets that have been used to expose and respond to national security threats from China include but are not limited to the following:

- Corporate registries and other datasets that describe corporate structure, investors, employees and ultimate beneficial ownership;
- Property and land registries that indicate the ownership of physical assets at key facilities;
- Asset registries, e.g. property, vessels, aircraft;
- Tender data that details government contracts, the companies supporting military technological development, and the capabilities that the PRC solicits from private enterprise;
- Academic publications, conference proceedings, details of masters and doctoral theses, lists of staff at institutions, science & technology awards, fellowship programs, and other academic-related datasets, which can provide information about possible international exposure China's military research & development enterprise;
- Entity-level trade data, which includes the organizations involved in the transfer of goods, the nature of the shipment, and the method of transportation;
- Financial records and investment disclosures that indicate the parties involved in mergers and acquisitions or cross-border greenfield investments;
- Venture capital data that indicates the source of funds and financing in key technological sectors;
- Satellite imagery available through commercial providers;
- Signals data for vessel and aircraft positions;
- Domain registration records and web traffic data;
- Data containing details of selectors used by individuals, for example phone numbers, and social media accounts; and
- Databases for known PEPs and/or leadership in China's political institutions.

Because of the quality and variety of publicly available information in the world today, CSIS's Technology and Intelligence Task Force, co-chaired by current Director of National Intelligence Avril Haines, recommended that policymakers reimagine "how the IC's OSINT mission should be organized."[68] Given the complexity of the threat environment in China, there are several challenges that organizations will have to consider in order to exploit publicly available information to mitigate national security risks in engagement with the Chinese commercial and academic space.

- **Deep subject matter expertise.** China's political economy exhibits features that require careful treatment and analysis. Successful investigations require prior exposure to illicit activities in China, including an understanding of the different typologies of activity that have been used in the past. Additionally, successful investigations may require some degree of industry specialization in order to properly understand technical details or sector-specific risk factors.

[68] Center for Strategic and International Studies. (2021a). *MAINTAINING THE INTELLIGENCE EDGE: Reimagining and Reinventing Intelligence through Innovation*. https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/210113_Intelligence_Edge.pdf

- **Data acquisition.** While broadly available, Chinese datasets prove difficult to acquire because of the time needed for identification and collection and for overcoming the barriers to access on certain websites. For example, many Chinese sites require a Chinese IP address or other credentials, presenting a technical obstacle to access and collection. Identifying these data sources in this first place also requires analysts with subject matter and language expertise. Moreover, certain analytic questions may require significantly more preparation time than others, as subject matter experts identify available data, assess its strengths and limitations to ensure that it could be used appropriately, and determine that derivative outputs will be sufficiently robust (i.e. judicially admissible).

- **Data integration, fusion, and management.** Given the complexity of Chinese corporate networks and party-state influence in the commercial space, due diligence investigations related to China's military-industrial complex require significant amounts of data from diverse sources in variable formats. Relevant data may include unstructured documents, flat files, and high-volume structured data, which must be integrated, standardized, cleaned, and modeled in order to be exploited with the timeliness required to be actionable. Chinese names—for companies and individuals—may be difficult to disambiguate without other unique identifiers (e.g. ID numbers for companies or people) that facilitate entity resolution across English and Chinese language data sources. Relatedly, U.S. public records often do not capture information that is essential to conduct a comprehensive due diligence investigation on Chinese corporate networks. For example, while U.S. SEC Filings contain significant amounts of information about the people and companies investing in the United States, they rarely contain the Chinese names for people or companies that would be required to investigate those companies or people in Mandarin-language sources, which dramatically slows the investigative process and limits the potential for conducting risk-screening at scale. To do so, organizations will require technology that can integrate, process, and manage disparate data at a scale of hundreds of millions or billions of records, with the ability to refresh data on a regular basis. Data integration pipelines are complex and require additional services, such as machine translation and natural language processing, to enable use by non-Mandarin speakers and extract entities from unstructured documents, respectively. Finally, the data integration, fusion, and management must have a strong auditability function to track data provenance and support policy interventions with judicially admissible standards of evidence.

- **Analysis.** Subject matter experts require experience leveraging bulk structured and unstructured data to develop and test appropriate analytic tradecraft. Increasingly, technology companies are developing data management and exploitation tools that facilitate domain subject matter experts (e.g. China political analysts) in managing and analyzing data, even without significant technical training. Given the complexity of national security investigations on China, analysts would be best served with tools that provide not only a simple point-and-click interface for search, analysis, and visualization but also more complex back-end environments through which data scientists can implement advanced analytic approaches (e.g. machine learning) for more proactive alerting.

As HPSCI noted in the September 2020 China Deep Dive, "open source intelligence (OSINT) will become increasingly indispensable to the formulation of analytic products [on the China target]."[69] Given the quality and variety of publicly available information, analysts can replicate the integration of multiple traditional sources of intelligence to produce analytic products with the timeliness and quality required to support meaningful law enforcement action. Publicly available information can facilitate information sharing between the broad range of stakeholders inside and outside government who may unwittingly expose the United States to national security risks, and who therefore must be engaged in order to develop an effective response. It can also help the IC, which faces ever broader intelligence requirements on an increasingly multifaced threat, direct its most specialized assets toward most sensitive and difficult intelligence questions.

Bottom line: China's political economy poses systemic national security risks to the United States, but publicly available information can support policymakers and investors with the data they need to protect U.S. interests.

China's political economy creates systemic national security risks for the United States. In order to properly appraise and mitigate risk, U.S. policymakers and investors must be sensitive to the formal and informal mechanisms through which the party-state exerts control or influence over companies, universities, and other actors in China's commercial and research sectors. While some have suggested that "the actions or potential actions of every Chinese firm are ultimately subordinate to the control of the Party,"[70] the Party's latest efforts to reassert CCP primacy over the commercial sector suggest that this is not the case. Instead, it seems that as judged from the Party's view, there is still insufficient control on private commercial actors who, through the wealth they generate, can pursue commercial objectives regardless of party-state policy goals. Because China's party-state uses both legal and extralegal mechanisms to influence companies and universities toward its policy objectives, U.S. policymakers and regulators will continue to face challenges in appraising where the costs of engagement with Chinese enterprises outweigh the benefits, and in developing policy responses that mitigate national security risks.

Several studies have provided comprehensive accounts of the actors that comprise China's military-industrial base, such as state-owned defense contractors, government-guided investment funds, universities, state labs, and other supporting party-state institutions. Others have also detailed China's extensive, deliberate efforts to acquire foreign technology and conduct intelligence operations against the United States and its allies. In this testimony, I have emphasized the more fundamental features of China's domestic political economy that expose the United States to national security risk even in the absence of state-sponsored operations, which have received comparatively less attention in discussions about how policymakers should respond to the China challenge. As the U.S. grapples with mitigating the risks of engagement with China's commercial and academic sectors, it must be attentive to the ways in which the country's "special deals" economy and informal corporate governance institutions result in relationships between businesses, universities, industrial associations, and the state that are fundamentally different from the institutional relationships that comprise the U.S. economy. If

[69] House Permanent Select Committee on Intelligence. (2020), p. 29
[70] The Office of Senator Tom Cotton. (2021, February). *Beat China: Targeted Decoupling and the Economic Long War.* https://www.cotton.senate.gov/imo/media/doc/210216_1700_China%20Report_FINAL.pdf

policymakers and observers do not appreciate those differences, they may continue to produce threat assessments that overstate loose notions of "CCP malign influence" and understate more fundamental vulnerabilities that our rules-based, market-oriented system faces in extensive commercial engagement with China's "special deals" economy.

In some cases, as with responses to the COVID-19 pandemic or climate change, it will be in our national interest to cooperate and collaborate with China. By overemphasizing the extent to which the CCP exerts control over companies, universities, and people in China, we reduce the likelihood that we will be able to seize those opportunities. Additionally, we may distract ourselves from the policy solutions that could more effectively and durably shore up the United States against threats from China, such as increasing transparency in beneficial ownership records for U.S.-domiciled companies, restricting dark money in politics, or combatting racial animus towards the Chinese diaspora (and reinforcing our liberal democratic values in the process).[71] These types of policy solutions can inform an affirmative policy agenda that unites the United States and its allies around a shared vision for the future, instead of a punitive one that centers solely on countering China.[72]

Going forwards, publicly available information should be treated as an indispensable tool in both diagnosing the nature of threats from China and prescribing empirically-grounded policy responses. While some have recommended that the U.S. government devote more resources to translating and disseminating Chinese policy documents and gray literature, there exists a significantly broader range of high-value datasets in the public domain that U.S. policymakers and investors can and should use to mitigate national security risk.

Academics like Bai, Hsieh, and Song (2019) have demonstrated that rigorous data science work applied to Chinese corporate data can help discern the otherwise elusive networks of state/private collusion that are critical to China's party-state economy. U.S. policymakers should therefore reimagine the role that publicly available information can play in identifying and responding to threats from China—not only in providing a low-cost, first-stop solution to establish a baseline for the nature of the threat, but also in producing analytic products that can be more easily disseminated across the government's interagency, with industry, and with partners internationally.

To this end, the United States will need a national data strategy that it is fine-tuned to the ever increasing volume of high-value, publicly available datasets from China.[73]

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[71] In her book *The Scientist and the Spy*, Mara Hvistendahl details the series of events in which American and Chinese employees of a Chinese agriculture company engaged in economic espionage in Iowa, and in doing so illustrates how the incentive structure of China's domestic political economy—through which partnerships between powerful local governments and their selected private enterprises, brokered through special deals, compete in a fierce domestic market without formal protections for property rights—create national security issues in the United States. Her recounting shows that core national security threats like illicit technology transfer can and do emerge not necessarily from a CCP-orchestrated espionage operation but instead as a result of incentive structures in China's domestic economy, where collusion is endemic.

[72] Lindsay Gorman at the German Marshall Fund has discussed the importance of affirmative messaging in the context of U.S. partnership with the European Union on threats from China. See Gorman, L. P. [@LindsayPGorman] (2021, February 28). U.S. Enlists Allies to Counter China's Technology Push. Key point: The strategy has both offensive and defensive components. I hope we'll see more on the offensive, affirmative agenda in the coming months too. [Tweet] Twitter. https://twitter.com/LindsayPGorman/status/1366059094419910668?s=20

[73] In 2018, the U.S. government began to develop and implement a Federal Data Strategy to improve the government's ability to leverage its data as a "strategic asset," but its scope is focused primarily on the federal government's current data holdings. For more information, see *Welcome - Federal Data Strategy*. Federal Data Strategy. https://strategy.data.gov/

That strategy must pay attention to the specific details of Chinese datasets, where even minor changes in bureaucracy (e.g. how company names are recorded on disclosure forms to the U.S. government or the Entity Lists it publishes) can yield significant dividends in the analytic process for government agencies, financial institutions, investigative reporters, and others who have a role to play in protecting U.S. interests. As we continue to bring more stakeholders inside and outside government into the fold, standard approaches to data collection and modeling—particularly as it relates to publicly available sources intended for broader consumption—must be a top of mind consideration.

In the meantime, policymakers have a range of open questions for which they must find solutions, whether in enforcing export controls or financial sanctions against massive Chinese conglomerates, adjusting the Foreign Investment Risk Review Modernization Act (FIRRMA) and Foreign Agents Registration Act (FARA) to reflect our changing understanding of Chinese corporate entanglements, or reimagining how the national security enterprise should relate to new sources of data.

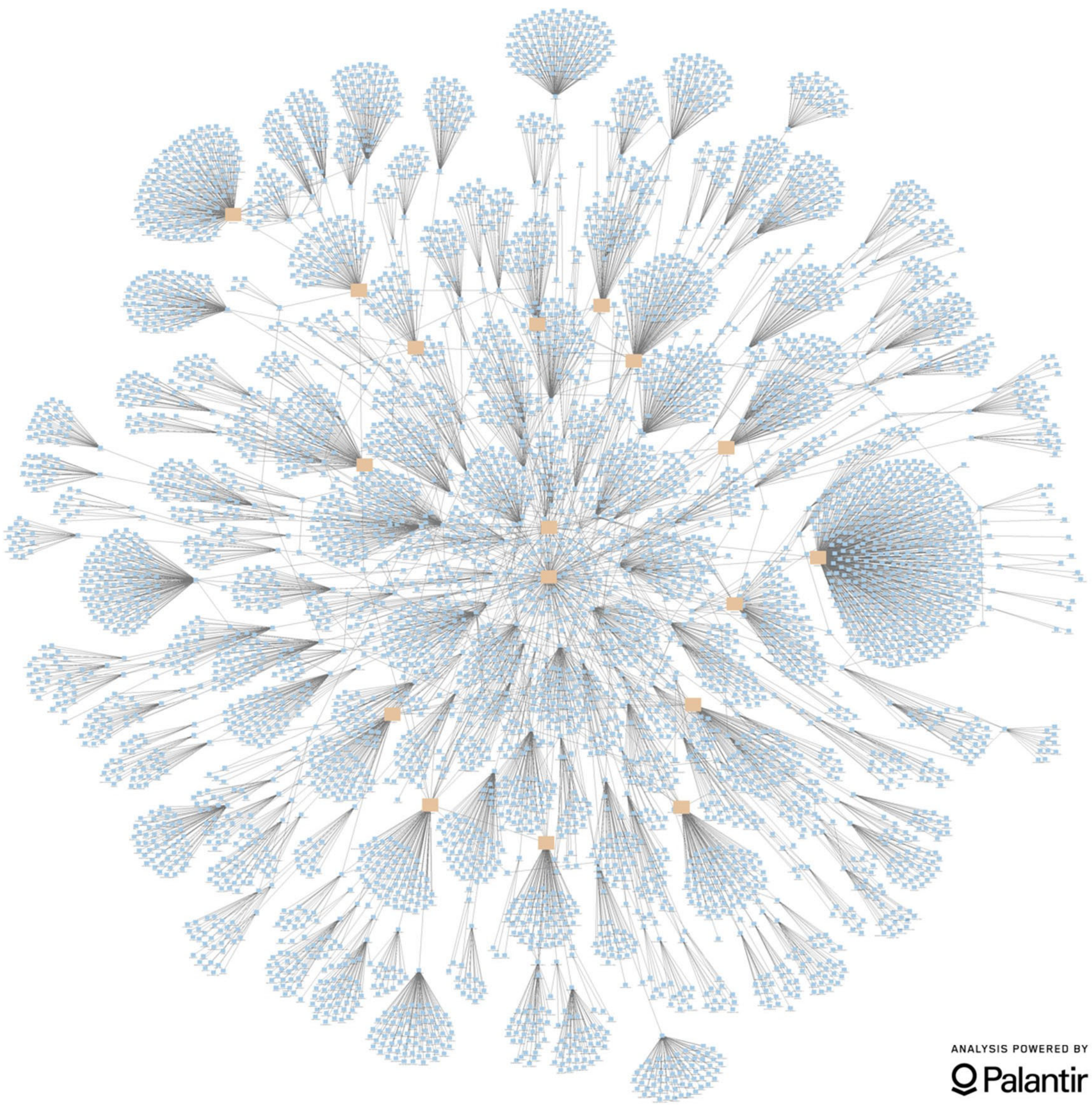
Throughout this work, analysis derived from publicly available information will be key. While PAI cannot replace the work of traditional intelligence agencies, it will help ensure that the intelligence community – whose requirements are growing far faster than its resources – can focus its capabilities on the hardest and most intractable of problems. In the coming years, PAI will become an increasingly important tool for protecting U.S. national security interests, and nowhere is that focus more needed today than in assessing U.S. exposure to China's military-industrial complex.

As Jude Blanchette notes, "the analytical frameworks that many of us are using to understand China's economy are stuck in past paradigms that view 'state' and 'market' as standing in tension. In reality, China's *sui generis* CCP Inc. system is creating an entirely new political-economic order, and one that is already leaving a deep impression on the global order."[74] Indeed, China's commercial system introduces complex national security threats that will require sustained attention and collaboration from a broad range of people who have expertise to contribute. I look forward to continued dialogue about these issues, their related policy implications, and the ways that new approaches to data and technology can help promote "constructive vigilance"[75] in the United States and among our allies.

[74] Blanchette, J. (2020, December 1). *From "China Inc." to "CCP Inc.": A New Paradigm for Chinese State Capitalism*. China Leadership Monitor. https://www.prcleader.org/blanchette

[75] Schell, O., & Diamond, L. (Eds.). (2018, November). *China's Influence & American Interests: Promoting Constructive Vigilance*. The Hoover Institution. https://www.hoover.org/research/chinas-influence-american-interests-promoting-constructive-vigilance

Appendix 1: Companies within Five Degrees of China's State-owned Assets Supervision & Administration Commission (as Subsidiary or by Investment)



The above graph depicts all companies that are either subsidiaries of or recipients of investments from the State-owned Assets Supervision & Administration Commission (SASAC) within five degrees. SASAC is directly subordinate to the State Council and responsible for managing central SOEs.

OPENING STATEMENT OF NATHAN PICARSIC, CO-FOUNDER, HORIZON ADVISORY; SENIOR FELLOW, FOUNDATION FOR DEFENSE OF DEMOCRACIES

COMMISSIONER FIEDLER: Thank you. Nate, are you prepared?

MR. PICARSIC: Hearing Chairs Fiedler and Borochoff, distinguished commissioners and staff of the Commission, 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.

Bilateral capital flows between the United States and China represent a novel feature and one with novel importance in a broader national security context. Secondly, as in most domains of integration, the Chinese Communist Party deliberately pursues asymmetric positioning in international capital flows. To underscore a bottom line up front, I am concerned that the national security community lacks appropriate analytic frameworks for assessing the impact of capital market integration in the U.S.-China contest. This Commission and Congress have a vital role to play in collecting and sharing relevant information, promulgating new reporting in 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 national security apparatus.

The risk apparent in bilateral capital flows indicate that U.S.-China economic relations require a systemic recalibration as a part of a broader competitive strategy for a long-term peace time competition. U.S. national security establishment has determined that the PRC presents a great power threat. The language used to describe the China threat, including the great power competition label, harkens back to the Cold War. There are certainly similarities. In the Cold War, of course, the U.S. faced off against a communist regime intent on rewriting the global order. However, today's contest is not a cold war.

Where 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. 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, which typically generated a minimal international trade volume and accounted for around 5 percent of overall economic activity. Since the early 1990s, in comparison, China's held a trade-to-GDP ratio of 30 percent.

This difference is reflected in capital flows as well. The global stall caused by COVID-19 prompted flows of capital into China to accelerate in 2020, and the PRC overtook the United States as the top destination for foreign direct investment for the first time. 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. Another that demands new frameworks for national security analysis is of the type of integration and the U.S. Government's relationship to it. Much of the exchange between the U.S. and the Soviet Union during the Cold War took place in domains where governmental restrictions could be enforced when a national security imperative was clearly and consistently invoked. That may no longer be the case. The strategic environment is changed.

U.S. financial intermediaries of all stripes invest in China's public market equities and debt, as well as private market equity and debt in China. Passive fund managers incorporate the

Chinese market as a vital component of mainstream allocation strategies. 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, for example, invest in and alongside actors in China with ties to the military-civil fusion enterprise.

Few of these avenues of capital integration feature any explicit awareness of mitigation against risks associated with the China -- with China's military-civil fusion strategy. This capital integration benefits China's military's cost of capital. At the same time, a class of military-civil fusion contributors are positioned to enjoy proximity to critical U.S.-based technology infrastructure and data. These factors support China's development of comprehensive national power. The ease with which they're supported by U.S. capital investment represents a strategic failure, that if corrected, could impose costs on Beijing's development of comprehensive national power.

China's integration with global capital markets also impacts its cost of empire, a potentially critical factor in a long peace-time competition. The Soviet Union's closed system created sunk costs and economic burden 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 cases.

For example, the CCP's control of its 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 advance. If China is able to 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 is able to 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.

Right now, U.S. capital, wittingly or not, contributes to China's -- contributes to China's military-civil fusion program. Passively managed index funds commonly invest -- invested in by U.S. persons and institutions have been reported to hold billions of dollars of equity in companies designated by DoD as Communist Chinese Military companies. These index funds draw capital from a range of U.S. sources, including in all likelihood, the retirement savings of individuals here today.

This means, first, that a U.S. index fund, and by extension its investors, provide capital to China's military-civil fusion program. They directly decrease the cost of capital for operating a Chinese military company.

Second, the interests of that fund and its investors become tied to those of China's military-civil fusion apparatus. To take one example, Vanguard's emerging market stock index fund offers an instructive case that is common across other similar investment vehicles that incorporate international equities within the framework of technology, growth, emerging market, or China-centric investment themes. The fund has featured stakes in several companies designated by DoD as tied to the Chinese military, including the surveillance firm, Hikvision. The fund also invests in the strategic and military relevant companies, like those that provide Beijing a stranglehold over rare earth element extraction and processing globally.

Vanguard's emerging market stock index fund features Class A shares of one such player, China Northern Rare Earth Group. While DoD has not designated any of China's rare earth players as Communist Chinese Military Companies, it is clear that those actors support China's industrial policy and the military-civil fusion program.

U.S. sources of capital investing into actors like Hikvision, China Northern Rare Earth, and the likes of Lier, a Chinese chemical player affiliated with the Chinese Academy of Engineering and Physics, is counterproductive on any and every metric of importance in the context of long-term competition with China. And this is just one class of example where U.S. funds support Chinese military's cost of capital and cost of empire.

Private market investment is discussed in other panels and reflected in the exposure of prominent investment funds present additional examples that feed into Beijing's apparatus for developing military power and present additional sources for us to continue to monitor and respond. Thank you.

PREPARED STATEMENT OF NATHAN PICARSIC, CO-FOUNDER, HORIZON ADVISORY; SENIOR FELLOW, FOUNDATION FOR DEFENSE OF DEMOCRACIES

19 March 2021

Nathan T. Picarsic
Co-Founder, Horizon Advisory
Senior Fellow, Foundation for Defense of Democracies

"Testimony before the U.S.-China Economic and Security Review Commission"
U.S. Investment in China's Capital Markets and Military-Industrial Complex

Hearing Co-Chairs Fiedler and Borochoff, distinguished Commissioners and staff of the US-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:

- 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; and,
- As in most domains of integration, the Chinese Communist Party (CCP) deliberately pursues asymmetric positioning in international capital flows.[1] To understand that asymmetric positioning will demand detailed monitoring. To redress 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, I will briefly address what I believe to be novel about the strategic context of today's US-China contest, the ways in which US investment into China's capital markets may generate national security risks, and a series of related policy recommendations.

To underscore the bottom-line up front: I am concerned that the national security community lacks appropriate analytic frameworks for assessing the impact of capital market integration in the US-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 US public about the scope of connections between US-domiciled pools of capital and China's military and national security apparatus. The national security risks apparent in bilateral capital flows indicate that US-China economic relations require a systemic recalibration as a part of a broader competitive strategy for a long-term, peacetime competition with the CCP.

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[1] At a 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 relevant discussion in a study completed for the US-China Economic and Security Review Commission: Emily de La Bruyere and Nathan Picarsic, "Two Markets, Two Resources: Documenting China's Strategic Engagement in Africa," November 2020, https://www.uscc.gov/sites/default/files/2020-11/Two_Markets_Two_Resources_Documenting_Chinas_Engagement_in_Africa.pdf.

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 of the Cold War, the forms it takes, and examples of national security risks associated with capital integration.

A New Type Great Power Contest

The US 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, peace-time contest in which the US engaged: The Cold War. At least rhetorically, that fight's legacy continues to inform US strategic thought.[4] There are certainly similarities. In the Cold War, too, the US faced off against a communist regime intent on rewriting the global order.

However, today's contest is not the Cold War. Where the US 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 powers aligned in World War II and thereafter, as they split. The sentiment continued even as the 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]

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[2] The 2018 National Defense Strategy declared as much by describing "inter-state competition" as the focus of US 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.

Today, the US-China competition features similar economic interaction – and similar resultant hurdles. Except both 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% of overall economic activity. Since the early 1990s, China has held a trade-to-GDP ratio above 30%.[8] The implications 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 flows of capital into China to accelerate in 2020: The PRC overtook the United States as the top destination for foreign direct investment (FDI) 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 – is of type and mode of integration, as well as the government's relationship to it. Much of the exchange between the US and the Soviet Union during the Cold War took place in well-regulated domains where governmental restrictions could be enforced when a national security imperative was clearly and consistently invoked. The United States 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.

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

[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.

National Security Risks of US Capital Flows to China

US capital integrates with the Chinese market, including aspects of it tied to military and national security development, along several paths. US financial intermediaries of all stripes invest in China's public market equities (in Hong Kong and on the mainland), public 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 US private equity and venture capital investors invest in and alongside actors in China with ties to the military-civil fusion enterprise.[16] US technology companies, like 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 military-civil fusion 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, the potential threats posed by capital inflows to the United States – on the basis that those 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 sources of capital risk providing funds for China's development of comprehensive national power – including its military and national security pillars. At the next order, US 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.

[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/.

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 US, 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, US pools of capital that are tied to the Chinese domestic market may find themselves operating according to incentive structures that could be more likely to contradict US 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 burden 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 of its 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 advance. If China is able to 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 is able to 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 US capital flows to China can pose; namely those associated with the military-civil fusion system, government guidance funds, and other features of the State led, Enterprise driven industrial policy system in China. I raise these because they suggest areas in which US capital flows into China present particular risk – 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 US 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 military-civil fusion program, government-led industrial policy, and human rights abuses;
- The purpose that the investment target serves within those (e.g., Does it act as an institutional coordinator? Does it collect or does it fuse and apply military-relevant technology?);
- The proximity of the investment target to Chinese government entities (e.g., is it State-backed? 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 US investment to its target and the target's potential value as a military-civil fusion contributor.

Military-Civil Fusion and Industrial Layout

Military-civil fusion offers a useful framing for understanding the national security risks attendant with US capital investing in Chinese markets. Military-civil fusion 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] Hu Jintao introduced the concept of military-civil fusion in the 1990s, drawing on the long-standing CCP concept of "military civilian combination."[21] At the end of 2007, the 17th Chinese People's Congress called formally for developing 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, Xi Jinping elevated military-civil fusion to national strategy. Military-civil fusion is not simply a theory: Its conceptual evolution has taken place alongside the development of practical processes, resource allocations, and outcomes.

Right now, US capital, wittingly or not, contributes to China's military-civil fusion program. Passively managed index funds commonly invested in by US persons and institutions have been reported to hold billions of dollars of equity in companies designated by DoD as Communist Chinese military companies – and targeted in a 2020 Executive Order meant to deter US investment into such companies.[23] These index fund intermediaries draw capital from a range of US sources, including, in all likelihood, the retirement savings of many individuals here today. This means, first, that a US index fund, and by extension its investors, provide capital to China's military-civil fusion program. Second, the interests of that fund and its investors become tied to those of China's military-civil fusion 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 into strategic and military-

[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.

relevant companies like those that provide Beijing a stranglehold over rare earth element 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 has not designated any of China's rare earths players as Communist Chinese military companies. But it is clear that these actors support Chinese industrial policy and the military-civil fusion program.[25]

The Vanguard fund also invests into less obvious military-civil fusion 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 (MIIT), is a key research force behind China's nuclear weapons program. It also undertakes research on directed energy weapons.[27] This is no secret: CAEP is on the US Entity List.[28] Lier describes itself as a "military-to-civilian company" and receives subsidies for participation in national military-civil fusion projects. The company's website boasts of partnerships with Dow Chemical and sales into the US market.[29]

US sources of capital investing into actors like 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 US 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 military-civil fusion contributors alongside efforts to document traditional military companies as mandated by the FY1999 NDAA. Section 1260H of the FY2021 NDAA calls for "Public 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

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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.

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 Chinese military companies.[30] It also paves the way for the Department of Defense to continue its documentation and public listing process. And a November 2020 Executive Order (13959) demonstrated a way in which this process could be acted upon to address national security risks of capital: The EO restricts the ability of US persons, institutional and retail investors, from trading in equities of companies designated in the DoD process and establishes timelines on which US 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 US and China's military-civil fusion program. It does little good to document the ties of Hikvision and its parent, China Electronics Technology Group Corporation (CETC), to the PLA and China's military-civil fusion program if Goldman Sachs can continue to invest into their public equities.[31] The US 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. EO 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 EO 13959 – only captures the tip of the military-civil fusion iceberg. China's military-civil fusion apparatus is diverse and global. It is also not entirely transparent. Webs of linked entities often obscure ownership and connections to the military industrial complex in China and complicate the traditional US 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, like Lier. These actors are able to 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 military-civil fusion program into their offerings, expanding the companies' access to capital, and also, in turn, linking incentives between everyday Americans and the military-civil fusion enterprise overseen by the Chinese Communist Party.

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

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[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.

The military-civil fusion 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 to a larger, diversified "State led, Enterprise driven" economic development program that prioritizes science and technology domains with a high degree of dual-use, military relevance.

Government guidance funds offer a ripe example of this larger program and the role of capital within it. Government guidance funds are meant to operationalize Chinese industrial policy, particularly 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 US capital entering into China. US index funds do not invest into government guidance funds. But Chinese government guidance funds do benefit from co-investing alongside and, in select cases, active management from US financial intermediaries.

SVB Capital, the private equity arm of Silicon Valley Bank, in 2009 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 US 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 US capital has grown as well. Prominent venture capital firms that raise funds from US limited partners, for example, frequently invest alongside Chinese guidance funds and policy funds – or alongside and into military and military-civil fusion contributors in China.

IDG Capital is an instructive example. IDG's limited partners include a vast set of traditional US 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 US-based addresses for general partners attached to specific securities offerings.[36] IDG's investment track record in China is legendary: The firm's

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[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

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 to actors like Qihoo 360, which has been designated by the US Department of Commerce for "activities contrary to the national security or foreign policy interests of the United States" [37] and others like ASR Microelectronics that contribute to military-civil fusion 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 US-based venture capital asset allocators that invest US-domiciled capital into and alongside the Chinese military-civil fusion ecosystem. The tally – and volume of capital under management – is higher when considering actors applying other private market investment strategies, like private equity, that fit a similar profile of being based in the United States, managing assets raised from US sources, and that have returns tethered to the success of the Chinese military-civil fusion ecosystem.

In a great power, peacetime competition, connections between US private market investment vehicles and China's government guidance funds could bolster Beijing's hand at the expense of that of the US – and at the expense of a US 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, US entities are therefore deploying their capital in accordance with the ambitions of CCP industrial policy. These US 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 US limited partners or US-domiciled general partners investing into private markets in China to provide transparency into transactions that may provide capital to either Chinese investors investing according to a State-mandate or Chinese operating companies that support the PLA or military-civil fusion system.

Recommendations

US 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 Chinese Communist Party distorts these, including through weaponization of capital both into and out of China. The US government therefore faces a difficult task to

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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.

[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.

address the scope and direction of national security risks related to capital flows.[41] And 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 nation-state, great power adversary in the context of a long-term, peacetime competition. As capital flows become increasingly integral in the robust, but fraught, trade and investment relationship between the US and China, security frameworks have to update.

The robust US-China economic relationship was facilitated in part by US 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 US policy toward China then have proven faulty time and again. Market access, forced technology transfer, and financial information challenges persist due to consistent CCP pursuit of asymmetric advantage. 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 military-civil fusion apparatus developed by the CCP delivers capital and technology to an increasingly assertive PLA that threatens US security and the interests of US allies and partners globally.

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

The US Congress should be encouraged to openly debate China's permanent normal trade relations (PNTR) status in light of these realities.

In addition to actively debating fundamental assumptions about the US-China economic relationship, like PNTR, Congress would be well advised to embark upon funding and implementing reporting requirements geared toward documenting military-civil fusion contributors in China and the scope of US capital that supports them. Those efforts can take the shape of tasking to US executive agencies, like the FY2021 NDAA Section 1260H guidance, as well as legally mandated disclosure requirements promulgated by regulators like the Securities and Exchange Commission.

These actions should be coordinated with technology-focused measures, like export controls, and inbound investment screening, like that conducted through the CFIUS process. Outbound capital flows should be evaluated for national security restrictions where capital directly supports military and military-civil fusion 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.

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[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 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.

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. A multilateral regime for sharing information about and imposing restrictions against capital and technology integration that carry national security risks is needed, 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, like 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 US norms and values. For these reasons and because of the reality of resource constraints, the US government 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 the present moment, there is an argument to be made that US government monitoring and action should focus on actors that play a pivotal role in the *fusion* phases of military-civil fusion in China. Defusing military-civil fusion will make more efficient subsequent efforts to cut off the information collectors that feed into the military-civil fusion apparatus on the ground in China. Prohibiting US capital flows to these fusing actors in China – the applied research organizations and systems integrators of the Chinese military industrial complex – is a logical first step.

But it would be just that, a first step. A coordinated US policy ecosystem and one that works effectively through multilateral channels would better be 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 military-civil fusion strategy as information collectors. Among the collection-focused enterprises, critical nodes, like those exemplified by CAEP's investment arm and actors tied to government guidance funds, stand out as examples 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 US national security or regulatory agency indicates the difficulty that the US government and public face in assessing and responding to national security risks that have emerged, and will continue to emerge, from capital integration. The US 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 US 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, ranging from those overseen by a diverse set of relevant actors ranging from DARPA to the Appalachian Regional Commission (ARC), 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 the disposal of the United States vis-à-vis the PRC. The US 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 R&D 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.

OPENING STATEMENT OF EMILY WEINSTEIN, RESEARCH ANALYST, CENTER FOR SECURITY AND EMERGING TECHNOLOGY

COMMISSIONER FIEDLER: Thank you. Emily? You're up.

MS. WEINSTEIN: Chairman Borochoff, Chairman Fiedler, and members of the Commission, thank you for the opportunity to testify today on the subject of China's military-civil fusion strategy, or MCF. I will begin my statement with a brief overview of China's MCF strategy, followed by an assessment of some of the MCF tools at Beijing's disposal, and will conclude with a selection of recommendations for U.S. policy.

In the plainest terms, China's MCF development strategy is a holistic approach to national development that ensure that new advancements simultaneously advance both economic and military development in China. Although the concept is not novel, China's MCF strategy under Xi Jinping takes a new approach, one that many experts believe supersedes those of his predecessors. This presents a number of challenges and implications for U.S. policy.

Key to MCF's implementation is a two-way transformation of military and civilian science and technology achievements. These spin-on and spin-on aspects -- or, spin-off aspects of MCF reflect the PRC's emphasis on dual-use technologies with simultaneous applications in both the military and civilian sectors. On the one hand, Beijing is interested in spinning on technology from civilian entities to military applications. And on the flip side, they are also interested in working to break down barriers that have prevented defense research and technologies from entering the civilian industry, thus encouraging spinning off.

Beijing maintains a host of tools at its disposal to implement military-civil fusion. My written testimony includes four specific examples, including university investment firms, industry alliances, MCF venture capital, and talent. And today I will elaborate on university investment firms and talent.

Firstly, through its subsidiaries, university investment firms help to further MCF by connecting university research to the innovative, commercial side of science and technology, and by extension, the Chinese defense apparatus. For instance, a subsidiary of China's Northwestern Polytechnical University's investment arm was added to the Department of Commerce's Entity List in 2020 for acquiring and attempting to acquire U.S.-origin items in support of programs for the PLA.

Although U.S. universities are similarly involved in investment activities, mirror imaging in this context is problematic, as Chinese universities are much more beholden to Beijing and the Chinese Communist Party than their counterparts in the United States are to the U.S. Government.

Another key tool in China's MCF realization is talent. Chinese policy documents call for the construction of a, quote, National Defense Science and Technology Team that utilizes superior whole of education -- whole of society education resources, end quote. Part of these efforts include scholarship programs like the National Defense Science and Technology scholarship, which provides educational funding for 2,000 Chinese undergraduates and graduate students annually. Following graduation, these students are required to work in China's defense industry for a minimum of five years. As similar as this program may sound to U.S. programs like the Boren or Pickering Fellowships, there are stark differences between it and its U.S. equivalents.

For instance, the National Defense S&T scholarship recipients are forbidden from making anti-party or anti-socialist remarks, or participating in what are described as illegal organizations. Similar programs in the United States have no such restrictions or allegiance requirements. As demonstrated by these details, it is clear that Beijing is dedicated to its pursuit of MCF. MCF may have yet to achieve its desired endpoint in China. However, even without operating at full capacity, the progress that China has made in implementing MCF demonstrates the unique and significant challenge that this strategy poses to the United States and our allies.

To enact effective policy, U.S. policymakers must have a clear understanding of their desired trajectory for U.S.-China relations. Instead of trying to incentivize change within China, the Biden administration and the U.S. Congress should work to bolster our own ability to mitigate these challenges -- excuse me, mitigate the challenges posed by China, while promoting collaboration where necessary and beneficial.

The United States should avoid policies aimed at crippling or changing Chinese government strategies or commercial behavior. China has demonstrated time and time again that it is willing to make surface-level changes to appease the international community while continuing to pursue its own agenda.

To conclude my analysis, I propose the following four recommendations for U.S. policy. One, establish an interagency working group within the U.S. government to increase awareness of China's MCF efforts and ensure that various departments and agencies are equipped to make effective policy within their individual jurisdictions. Two, create a repository of open source due diligence materials that could be used by academia and industry to allow them to make more informed decisions about collaborations and interactions with Chinese counterparts. Three, provide the Securities and Exchange Commission with Chinese-language and area studies resources to assist in auditing and assessing Chinese firms listed on U.S. stock exchanges. And finally, improve the U.S. government's ability to audit supply chains and establish industry reporting guidelines to identify significant choke points, ensure compliance with requirements, and support our allies and partners. Thank you very much for your time. I look forward to discussing more during the Q&A.

PREPARED STATEMENT OF EMILY WEINSTEIN, RESEARCH ANALYST, CENTER FOR SECURITY AND EMERGING TECHNOLOGY

Testimony before the U.S.-China Economic and Security Review Commission on "U.S. Investment in China's Capital Markets and Military-Industrial Complex"

March 19, 2021

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Chairman Borochoff, Chairman Fiedler and members of the commission, thank you for the opportunity to testify today on the subject of China's military-civil fusion (MCF; 军民融合) and its implications for the United States. In plainest terms, China's MCF development strategy is a holistic approach to national development that ensures that new advancements and innovations simultaneously advance the country's economic and military development.[1] As President Biden's administration and the 117th Congress continue to develop and shape China policy, I believe that understanding the goals and ambitions under China's MCF strategy is crucial to making informed decisions about the future of U.S.-China relations.

Since the founding of the People's Republic of China (PRC) in 1949, Chinese leaders have sought to compel or mobilize the commercial sector in support of the People's Liberation Army (PLA). However, since Xi Jinping's ascension to power in 2012, he has prioritized MCF and the role of the military as key aspects of China's overall national development strategy. Xi has also worked to develop tools designed to bridge the gap between the civilian and defense spaces. Although the concept of leveraging civilian and military resources itself is not new, Xi's MCF strategy takes a new approach, albeit one based on past industrial policies. Moreover, Peter Wood and Alex Stone argue that Xi's MCF strategy supersedes those of his predecessors.[2] This presents a number of challenges and implications for U.S. policy, both domestically as well as in exchanges and interactions with Chinese entities.

MCF is a process, and remains far from completion. Estimates from within the Chinese government acknowledge that they are still in the nascent stages of implementing MCF.[3] However, even if implementation is incomplete, Beijing's vision is clear. Moreover, outside attempts to cripple or incentivize change within China's system have thus far proven unsuccessful. In order to counter the growing challenge posed by China's MCF efforts, the United States should focus on improving and growing our own system and capabilities. The United States can no longer afford to waste time and effort trying to incentivize or coerce change within China. Instead, understanding that the U.S. and Chinese systems are inherently different, the United States should work to develop a strategy that can mitigate threats and challenges while supporting ongoing collaboration with China where it falls within U.S. interests.

Policy Recommendations:

- Establish an interagency working group within the U.S. government to increase awareness of China's MCF efforts and ensure that various departments and agencies are equipped to make effective policy within their individual jurisdictions.

[1] "Military-Civil Fusion and the People's Republic of China," U.S. Department of State, May 2020, https://www.state.gov/wp-content/uploads/2020/05/What-is-MCF-One-Pager.pdf

[2] Alex Stone and Peter Wood, "China's Military-Civil Fusion Strategy: A View From Chinese Strategists," China Aerospace Studies Institute, 2020, https://static1.squarespace.com/static/5e356cfae72e4563b10cd310/t/5ee37fc2fcb96f58706a52e1/1591967685829/CASI+China%27s+Military+Civil+Fusion+Strategy-+Full+final.pdf

[3] "Suggestions on the development of the military-civil fusion innovation system" [对我国军民融合创新体系发展的建议], Academy of Ocean of China [中国海洋发展研究中心], January 11, 2019, https://perma.cc/D72F-5FLA

- Create a repository of open-source due diligence materials and guidelines that can be used by academic institutions and industry to allow them to make more informed decisions about collaborations and interactions with Chinese counterparts.

- Provide the Securities and Exchange Commission (SEC) and the Public Company Accounting Oversight Board (PCAOB) with Chinese language and area studies resources to assist in auditing and assessing Chinese firms listed on U.S. stock exchanges.

- Improve the U.S. government's ability to audit supply chains and establish industry reporting guidelines to identify significant chokepoints and ensure compliance with requirements, as articulated by the China Strategy Group.[4]

1. MCF Under Xi

MCF under Xi seeks to complement and fuse China's economic and security interests domestically and abroad, and to promote the simultaneous, integrated development of national defense construction and economic construction.[5] The strategy was elevated to a national-level strategy by Xi in 2014-15 "in response to complex security threats and as a means of gaining strategic advantages," demonstrating its significance within the broader scheme of Chinese development policies.[6]

The main objective of China's MCF strategy is to bolster the seamless flow of materials, technology, knowledge, talent, and financial resources between the military and commercial industrial complexes, according to Former Assistant Secretary of State for International Security and Nonproliferation Christopher Ford.[7] When (and if) finalized, a successful MCF strategy will ultimately manifest in an integrated national strategic system that connects the PLA, universities and research institutions, state-owned defense firms, commercial firms, the manufacturing base, and government agencies.[8] Wood and

[4] "Asymmetric Competition: A Strategy for China & Technology," China Strategy Group, Fall 2020, https://assets.documentcloud.org/documents/20463382/final-memo-china-strategy-group-axios-1.pdf

[5] Translation of "The 13th Five-Year Special Plan for S&T Military-Civil Fusion Development" ["十三五"科技军民融合发展专项规划], Center for Security and Emerging Technology, June 24, 2020, https://cset.georgetown.edu/research/the-13th-five-year-special-plan-for-st-military-civil-fusion-development/

[6] Alex Stone, "China's Military-Civil Fusion Strategy: A View from Chinese Strategists: Executive Summary," China Aerospace Studies Institute and BluePath Labs, 2020, https://www.bluepathlabs.com/uploads/1/1/9/0/119002711/china%E2%80%99s_military-civil_fusion_strategy_executive_summary.pdf

[7] Christopher A. Ford, "Technology and Power in China's Geopolitical Ambitions," Testimony to the U.S.-China Economic and Security Review Commission, June 20, 2019, https://www.uscc.gov/sites/default/files/Ford_USCC%20Testimony_Final.pdf

[8] Greg Levesque and Mark Stokes, "Blurred Lines: Military-Civil Fusion and the 'Going Out" of China's Defense Industry," Pointe Bello, December 2016, https://static1.squarespace.com/static/569925bfe0327c837e2e9a94/t/593dad0320099e64e1ca92a5/1497214574912/062017_Pointe+Bello_Military+Civil+Fusion+Report.pdf

Stone refer to this ideal "ultimate goal" as China's "unified military-civil system of strategies and strategic capabilities."[9] At the end of the day, a successful MCF strategy is one that weaves and embeds all other national strategic priorities, including those in innovation, education, poverty alleviation, as well as defense.

The remainder of this testimony proceeds in three parts. First, it provides an assessment of how China "spins on" technology from the civilian sector to the military and vice-a-versa via "spin off." Second, it discusses tools that the Chinese government uses to implement its MCF strategy, including university investment mechanisms, industry alliances, venture capital firms, and talent recruitment efforts. The third section concludes with several policy recommendations to inform and guide U.S. policy toward addressing Chinese MCF efforts.

1.1 "Spinning-on" and "Spinning-off"

Key to MCF implementation is the two-way transformation of military and civilian S&T achievements. These "spin-on" and "spin-off" aspects of MCF, referred to as *mincanjun* (民参军) and *junzhuanmin* (军转民) respectively, reflect PRC's emphasis on dual-use technologies with simultaneous applications in both the military and civilian sectors. As part of these efforts, China aims to promote the construction of "mutual transformation systems for military and civilian S&T achievements'' through the establishment of public service platforms, increased exchanges and information-sharing, according to the "13th Five-Year Special Plan for S&T Military-Civil Fusion Development."[10]

As noted in the U.S. Department of Defense's (DoD) 2020 China Military Power Report, Beijing seeks to leverage the commercial sector in its efforts to realize the PLA's modernization goals.[11] The aforementioned concept of *mincanjun*, often referred to as "private sector participation in the military sector," represents the PRC's interest in facilitating "spin on" technology from civilian enterprises and research institutions to military applications. According to Article 16 of the "13th Five-Year Special Plan for S&T Military-Civil Fusion Development" (hereinafter referred to as the 13th Five-Year Plan for MCF; "十三五"科技军民融合发展专项规划), encouraging innovative civilian entities to participate in MCF S&T development is crucial to overall MCF success, which in turn requires an adjustment and optimization of policies related to market access.[12]

[9] Stone and Wood, "China's Military-Civil Fusion Strategy: A View From Chinese Strategists."
[10] Translation of "The 13th Five-Year Special Plan for S&T Military-Civil Fusion Development" ["十三五"科技军民融合发展专项规划], Center for Security and Emerging Technology.
[11] "Military and Security Developments Involving the People's Republic of China," U.S. Department of Defense, September 2020, https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF
[12] Translation of "The 13th Five-Year Special Plan for S&T Military-Civil Fusion Development" ["十三五"科技军民融合发展专项规划], Center for Security and Emerging Technology.

Moreover, the "13th Five-Year Plan for MCF" encourages the promotion of two-way open sharing of resources between the military and civilian sectors by gradually incorporating national defense S&T research, equipment, and facilities into a unified national scientific research system and faculty network.[13] This will ultimately lead to more "spinning off from the military to the commercial space," or *junzhuanmin*, by breaking down barriers that have prevented defense research and technologies from entering the civilian industry. According to military experts in China, the *junzhuanmin* aspect of MCF is crucial to the long-term viability and growth of military defense enterprises in China, many of which are large, long-standing state-owned enterprises in need of an upgrade.[14]

Chinese experts acknowledge that progress in the *mincanjun* arena has been notably slow and insufficient.[15] For instance, some argue that because private companies and institutions are required to maintain the necessary secrecy qualifications for weapons and defense equipment R&D for three years before they can apply for licensing and certifications, the majority of new and innovative companies have a difficult time breaking into the military/defense space.[16] Furthermore, the slow pace of military and defense procurement may dampen the enthusiasm of private firms to participate in MCF work.[17]

In 2019, a report from China's state-owned CCID Think Tank highlighted data from the PLA Equipment Development Department claiming that the number of private enterprises that had obtained qualifications for defense contracting units increased from over 500 to more than 2,300 since 2013.[18] Analysis from China's state-owned *Xinhua News* the same year claimed that about 3,000 private enterprises had obtained the necessary procurement qualifications for military products.[19] However, only a small subset of private firms are required to obtain specific licenses for military procurement, so this number is underinclusive, and there are likely more private firms that have found additional ways to

[13] "Opinions on the In-Depth Development of Military-Civil Fusion" [军民融合深度发展的意见], General Office of the State Council on Promoting the National Defense Technology Industry [国务院办公厅关于推动国防科技工业], December 2017, https://perma.cc/4M58-X4C2

[14] "'Military-to-civilian' and 'civilian-to-military' pace accelerates, the development of MCF continues to release new momentum" ["军转民""民参军"步伐加快军民融合发展持续释放新动能], China Financial News Network [中国金融新闻网], August 1, 2018, https://perma.cc/B4FH-H2SK

[15] "Opportunities and Challenges of 'Civilian Participation in the Military'" ["民参军"的机遇与挑战], People's Liberation Army News [解放军报], March 2, 2019, https://perma.cc/Q5TK-MQJ6

[16] Prior to 2017, civilian firms were required to obtain up to four licenses to participate in the defense supply chain. In October 2017, the Central Military Commission's Equipment Development Department announced that two of these licenses had been merged, thus reducing the number of required licenses to three as well as the time by roughly six months. For more information on the various licencing and certification requirements, see: Stone and Wood, "China's Military-Civil Fusion Strategy: A View From Chinese Strategists."

[17] "Prospects for the development of China's military-civil fusion in 2019" [2019年中国军民融合发展形势展望], CCID Think Tank [赛迪智库], 2019, https://perma.cc/H998-64G8

[18] "Prospects for the development of China's military-civil fusion in 2019" [2019年中国军民融合发展形势展望], CCID Think Tank.

[19] "About 3,000 private enterprises in China have entered the front line of military procurement" [我国大约3000家民企已进入军工采购一线], Science and Technology Daily [科技日报] rehosted by Xinhua News [新华网], March 14, 2018, https://perma.cc/FK6T-MKKS

contribute to MCF.[20] This is to say, despite recognized barriers, *mincanjun* has and will likely continue moving forward, as more and more private Chinese firms join the efforts.

1.1.2 Mincanjun in Action: China's UAV Industry

As China has sought to become a leader in key emerging technologies with military potential, the country's UAV industry presents an interesting case study of *mincanjun* in action, considering that many key players operating outside the realm of traditional state-owned enterprises have made significant advancements over the past five years. For instance, private firm Ziyan (紫燕) UAV in 2019 exhibited armed swarming drones that it claimed used AI for autonomous guidance, target acquisition, and attack execution.[21]

In a 2019 article from *China Economic Weekly,* UAV company Lingkong Technologies' (羚控科技) CEO Duan Xiaojun argues that Beijing's MCF policy has greatly promoted the development of China's UAV industry. Moreover, he argues that *mincanjun* has increased the diversity of, and demand for, military UAVs in China. According to Duan, his company has been actively approached by military industry companies interested in cooperating.[22]

Junzhuanmin appears to similarly be in its nascent stages. However, several successful examples of "spinning off" have been publicized by the PRC government. In December 2018, the Ministry of Industry and Information Technology (MIIT) published the "Catalog for the Promotion of Military Technology to Civilian Use," highlighting 150 solicited *junzhuanmin* success cases. For instance, one project entitled "Chemical accident safety inspection and rescue vehicle" (化工事故安全检测救援车) claims to be a "military-to-civilian (*junzhuanmin*) high-tech product that can fill the gap in the field of domestic chemical accident rescue vehicles."[23] This product was developed by the Shanghai Lingyao Ship

[20] Elsa Kania and Lorand Laskai, "Myths and Realities of China's Military-Civil Fusion Strategy," Center for a New American Security, January 2021, https://s3.us-east-1.amazonaws.com/files.cnas.org/documents/Myths-and-Realities-of-China%E2%80%99s-Military-Civil-Fusion-Strategy_FINAL-min.pdf?mtime=20210127133521&focal=none
[21] "Military and Security Developments Involving the People's Republic of China," U.S. Department of Defense.
[22] Cao Xu, "Duan Xiaojun, Chairman of Lingkong Technology: The password of UAV's 'Civilian participation in the military'," [羚控科技董事长段晓军：无人机的 "民参军" 密码], *China Economic Weekly* [中国经济周刊], January 2019.
[23] "Notice of the two departments on the issuance of the 'Catalog for the Promotion of Military Technology Transfer to Civilian Use (2018)" [两部门关于印发《军用技术转民用推广目录（2018年度）》的通知], Ministry of Industry and Information Security [工业和信息部] and the State Administration for Science, Technology and Industry for National Defense [国家国防科技工业局], December 5, 2018, https://perma.cc/3QJH-KZMQ

Engineering Co., a subsidiary of the 701 Research Institute of China Shipbuilding Industry Corporation, a leading defense state-owned enterprise (SOE).[24]

Furthermore, the "2016 Opinion on the Integrated Development of Economic Construction and National Defense Construction" (关于经济建设和国防建设融合发展的意见) highlighted that PLA should work to declassify patents and make various military technologies available to the broader commercial sector. In response in 2017, the *PLA Daily* announced that the National Defense Intellectual Property Office released 2,346 declassified defense patents to promote the "transformation of defense patents into the civilian field."[25] However, gaps still remain. MCF scholar Jiang Luming has claimed that many Chinese defense patents have unrealized commercial potential, often referring to them as "sleeping beauties" (睡美人).[26]

Indeed, as a 2019 analysis from the Academy of Ocean of China points out, the transformation rate of defense science-derived technologies into the commercial space is between 50 and 60 percent in developed countries, but only 15 percent in China.[27] As a whole, progress may appear slow but has nonetheless moved in the desired direction based on MCF strategy goals. Given how massive an undertaking this strategy is, signs of progress are more useful indicators to watch than completion.

2. Beijing's MCF Tools

The Chinese government maintains a number of tools at its disposal to further its MCF development strategy. These tools are primarily aimed at finding various ways to bridge the gap between the civilian and defense spaces, which Chinese military experts argue remains a prominent challenge to MCF's realization. This section will cover four specific tools that the PRC uses to advance MCF, including university investment firms, industry alliances, and venture capital firms.

[24] "Company Profile" [公司介绍], Shanghai Lingyao Ship Engineering Co. [上海凌耀船舶工程有限公司], https://perma.cc/K4FZ-Y5ZH

[25] "More than 3,000 national defense patents have been decrypted from over 30 years" [3000全件国防专利30多年来集中解密], PLA Daily [中国军网], April 3, 2017, https://perma.cc/2FE6-YQLY

[26] Stone and Wood, "China's Military-Civil Fusion Strategy: A View From Chinese Strategists;" "Experts suggest deepening MCF--Wake up the military 'Sleeping Beauty' to activate the 'new force' of private enterprises'" [专家建言军民深度融合——唤醒军工"睡美人"激活民企"生力军"], People's Government of Sichuan Province, October 31, 2016, https://perma.cc/C7QS-ANC8; "More than 3,000 national defense patents have been decrypted from over 30 years" [3000全件国防专利30多年来集中解密], PLA Daily [中国军网].

[27] "Suggestions on the development of the military-civil fusion innovation system" [对我国军民融合创新体系发展的建议], Academy of Ocean of China [中国海洋发展研究中心].

2.1 University Investment Firms

In 2017, the CCP Party Secretary of Beijing Institute of Technology Zhao Zhanglu argued that universities should be at the forefront of MCF efforts, and they have indeed carved out an important role.[28] More specifically, Chinese universities appear to have more extensive commercial responsibilities and roles than their counterparts in the United States. For instance, many top Chinese universities maintain holding companies that are heavily involved in defense R&D and production. These holding companies, such as Tsinghua Holdings, PKU Resources, and others, are wholly-owned by their respective universities and operate at their behest. The examples below illustrate these relationships. Although U.S. institutions like MIT and others are similarly involved in investment activities, mirror-imaging in this context is problematic, as Chinese universities are much more beholden to Beijing and the Chinese Communist Party (CCP) than their counterparts in the U.S. are to the U.S. government.[29]

2.1.1 Northwestern Polytechnical University

Northwestern Polytechnical University (NWPU; 西北工业大学), one of China's "Seven Sons of National Defense" currently oversees 10 wholly-owned subsidiaries through its holdings company, Xi'an Northwestern Polytechnical University Asset Management Co. (西安西北工业大学资产经营管理有限公司).[30] One of them, Xi'an Overland Science and Technology Co. (西安沃兰科技有限责任公司), who specializes in everything from computer software and hardware to chemical and biological products according to NWPU, was added to the Entity List in August 2020 for acquiring and attempting to acquire U.S.-origin items "for a person on the Entity List and in support of programs for the People's Liberation Army."[31]

Another subsidiary, the Shenzhen Northwest Industrial Technology Research Institute Co. (深圳市西北工业技术研究院有限公司) is jointly overseen by NWPU and the Northwest Industrial Technology Research Institute (NITRI; 西北工业技术研究院). NITRI was established by the Shaanxi Provincial Government, the Xi'an Municipal Government, NWPU, the former Commission for Science, Technology,

[28] Zhao Zhanglu, "People's daily New Theory: Universities should be on the front line of MCF" [人民日报新论：大学应战在军民融合的前线], People's Daily [人民日报], March 14, 2017, https://perma.cc/RC2P-6YGF

[29] For instance, in the National Medium to Long-Term Plan for Science and Technology Development (2006-2020), Chinese leadership argues that, to enhance its capacity for indigenous/independent innovation, China must "make full use of the favorable conditions of opening up to the outside world and expand various forms of international and regional S&T cooperation and exchanges." This includes encouraging universities and research institutes to seek out collaborations to establish international joint labs and R&D centers. For more information, see: "Outline of the National Medium to Long-Term Plan for Science and Technology Development (2006-2020)" [国家中长期科学和技术发展规划纲要], 2006, https://perma.cc/46ZW-FMP9

[30] The Seven Sons of National Defense are a group of universities administered directly by the Ministry of Industry and Information Technology. For more information, see: Ryan Fedasiuk and Emily Weinstein, "Universities and the Chinese Defense Technology Workforce," Center for Security and Emerging Technology, December 2020, https://cset.georgetown.edu/research/universities-and-the-chinese-defense-technology-workforce/

[31] "Xi'an Overland Technology Co., Ltd." [西安沃兰科技有限责任公司], July 29, 2011, https://perma.cc/RYX4-VSFD; "Addition of Entities to the Entity List, and Revisions of Entries on the Entity List," Bureau of Industry and Security, U.S. Department of Commerce via Federal Register, August 27, 2020, https://www.federalregister.gov/documents/2020/08/27/2020-18909/addition-of-entities-to-the-entity-list-and-revision-of-entries-on-the-entity-list

and Industry for National Defense (COSTIND, now SASTIND), and various military industry companies, according to NITRI's website.[32] The Shenzhen Northwest Industrial Technology Research Institute was formerly co-owned by NWPU and FIYTA Precision Technology Co., a subsidiary of Aviation Industry Corporation of China (AVIC), a leading defense SOE. In 2011, FIYTA transferred its 45 percent shares to NWPU, making the university the sole owner.[33] These linkages illustrate that some Chinese universities are merely a few degrees of separation from Chinese military enterprises and share funding sources and financial interests with key players in China's military-industrial complex.

2.1.2 Tsinghua Holdings

Tsinghua University's Tsinghua Holdings (清华控股) claims on its website that it "actively promotes the transformation and industrialization of Tsinghua University's scientific and technological achievements." Established in September 2003, Tsinghua Holdings is wholly-owned by Tsinghua University and operates on a registered capital of 2.5 billion RMB.[34] The company oversees four primary subsidiaries: Tsinghua Tongfang (清华同方), Tsinghua Unigroup (紫光集团), TusHoldings (also known as TusPark; 启迪控股), and Chengzhi Co. (诚志股份有限公司). The investments made by these subsidiaries arguably help to further MCF by connecting university research to the innovative commercial side of S&T, and by extension, the Chinese defense apparatus.

Tsinghua Tongfang and its subsidiaries act as the intermediary between Tsinghua University research and the defense technology industry. For instance, the company's 2019 annual report states that Tongfang invested in the establishment of Tongfang Huachuang to promote Tsinghua University research in Micro-Electro-Mechanical Systems (MEMS) technology, which it argues will follow the "national strategic needs" and "seize the strategic opportunity of maritime power and further advance the development of the marine defense industry."[35]

The annual report also tracks the activities of Tongfang subsidiary, Tongfang Industry Co. (同方工业有限公司), which reportedly is "mainly engaged in the technological transformation of Tsinghua University's S&T industry-related projects," and whose products range from high-end communication equipment, marine equipment, ships, nuclear energy applications, command-and-control equipment, high-precision satellite navigation systems, and chemical defense equipment.[36] Moreover, according to Tongfang's 2020 Semi-Annual Report, Tongfang Industry Co.'s sales of designated military products are exempt from value-added tax,[37] pursuant to the "Notice of the Ministry of Finance and the State Administration

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[32] "Introduction to the Northwest Industrial Technology Research Institute" [西北工业技术研究院简介], Northwest Industrial Technology Research Institute website, https://web.archive.org/web/20170610062218/http://www.nitri.cn/about/index.jsp
[33] "2012 Annual Report" [2012 年度报告], FIYTA Group Co., Ltd. [飞亚达（集团）股份有限公司], 2012, https://perma.cc/3ASL-657Z
[34] "Group Introduction" [集团简介], Tsinghua Holdings [清华控股], https://perma.cc/6GHU-X76L
[35] "Tongfang Co., Ltd. 2019 Annual Report" [同方股份有限公司2019 年年度报告] Tsinghua Tongfang Co., 2019, https://perma.cc/Q5BT-5DZP
[36] "Tongfang Co., Ltd. 2019 Annual Report" [同方股份有限公司2019 年年度报告].
[37] "2020 Semi-Annual Report" [2020年半年度报告], Tongfang Co., Ltd. [同方股份有限公司], 2020, https://perma.cc/Q3Z7-VXMS

of Taxation on Military Products Value-Added Tax” (财政部国家税务总局关于军品增值税政策的通知) and the “Notice of the National Defense Science and Industry Administration on Printing and Distributing the Implementation Measures for Military Products Exemption from Value-Added Tax” (国防科工局关于印发《军品免征增值税实施办法》的通 知).[38] While it is difficult to measure their success at this stage, these mechanisms are designed with the intent to facilitate the more efficient and rapid transfer of technology to the defense sector as well as provide an incentive to commercial actors to contribute to defense R&D.

2.2 MCF Industry Alliances

Alongside university investment firms, China utilizes industry alliances to promote cooperation and dialogue across academia, industry, and the Chinese government. Often focused around a specific sector or technology --for instance, the China Robot Industry Alliance (中国机器人产于联盟), the 5G Commercial Industry Alliance (5G商用产业联盟), and the Artificial Intelligence Industry Alliance (中国人工智能产业发展联盟)--these alliances act as vehicles to bridge the gap between the defense and commercial spaces. Alliances are primarily led by a Chinese government ministry, office, or military entity, and members usually include a variety of SOEs, commercial firms, universities, and Chinese Academy of Sciences (CAS) affiliates. The following examples provide insight into the role that industry alliances play in China’s MCF strategy.

2.2.1 Nuclear Industry (Shaanxi) MCF Technology Innovation Industry Alliance

Established in October 2018 in Shaanxi Province, the Nuclear Industry MCF Technology Innovation Industry Alliance (核工业（陕西）军民融合技术创新产业联盟) was designed to accelerate “cooperation and achievement transformation of production, talent, S&T research, and practical applications” between China’s nuclear industry enterprises and research institutions. Members of this alliance include prominent civilian universities like Xi’an Jiaotong University, large state-owned firms like China Power Group, in addition to state-owned funding entities like the China National Nuclear Investment Fund and the China Development Bank.[39]

2.2.2 Shaanxi University MCF Technology Innovation Alliance

The Shaanxi University MCF Technology Alliance (陕西高校军民融合科技创新联盟), established in July 2017, aims to bring together universities within Shaanxi Province to coordinate MCF work. The alliance includes top civilian universities like Xi’an Technological University, NWPU, Xi’an Polytechnical

[38] “The deepening of MCF will reshape the procurement of weapons and equipment in the long term” [军民融合深度推进，长期将重塑武器装备采购], Hua Chuang Securities [华创证券], December 24, 2018, https://perma.cc/QB2X-RHF4
[39] “Introduction to the Nuclear Industry (Shaanxi) MCF Technology Innovation Industry Alliance” [核工业（陕西）军民融合技术创新产业联盟情况介绍], Nuclear Industry (Shaanxi) MCF Technology Innovation Industry Alliance official website, https://perma.cc/63FY-WXD9

University, Xidian University, local vocational schools like the Shaanxi National Defense Vocational and Technical College, as well as leading military research institutions like the PLA Rocket Force Engineering University and the Air Force Engineering University.[40] Official announcements state that the opening ceremony for the alliance was held at the Xi'an Weapons Base, a key MCF center jointly formed by Shaanxi Province and defense SOE China North Industries Group Corporation (NORINCO).[41]

2.2.3 Sichuan MCF High-Tech Industry Alliance

Led by state-owned Sichuan Jiuzhou Group,[42] the Sichuan MCF High-Tech Industry Alliance (四川军民融合高技术产业联盟) was stood up in April 2016 with the goal of sharing scientific research resources and promoting the application of dual-use technologies across both military and civilian sectors.[43] Official statements also claim that the alliance aims to implement major national projects in Sichuan and ensure the "smooth completion of scientific research and production of major weapons and equipment."[44] The alliance also houses the "Transfer and Transformation Office" (转移转化办公室), co-sponsored by the University of Electronic Science and Technology's MCF Collaborative Innovation Center (电子科技大学军民融合协同创新中心), that aims to further strengthen technological cooperation and exchange between research entities in Sichuan and the local military-industrial complex.[45]

It is important to note that the alliance's leader, Sichuan Jiuzhou Group, is headquartered in Mianyang, Sichuan.[46] Mianyang is sometimes described as a "Highland of MCF Innovation" and is considered a node of defense innovation.[47] The city is also home to the China Academy of Engineering Physics, the

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[40] "Shaanxi University MCF Technology Innovation Alliance was established" [陕西高校军民融合科技创新联盟成立], Private Education Information Network [民办教育信息网], July 24, 2017, https://perma.cc/3DX4-RXLE; "Shaanxi University MCF Technology Innovation Alliance was established" [陕西高校军民融合科技创新联盟成立], China Daily, July 22, 2017, https://perma.cc/DAH6-LC6J

[41] "Alibaba and Ant Group: Involvement in China's Military-Civil Fusion Initiative," RWR Advisory Group LLC, October 2, 2020, https://www.rwradvisory.com/wp-content/uploads/2020/10/RWR-Report-Ant-MilCiv-Fusion-10-2020.pdf

[42] Sichuan Jiuzhou Electric Group Co. is wholly-owned by parent company, Sichuan Jiuzhou Investment Holding Group, which in turn is wholly-owned by the State-owned Assets Supervision and Administration Commission of Mianyang City. For more information, see: https://perma.cc/U2NX-W535 and https://perma.cc/2TZU-X38L

[43] "Sichuan established the MCF high-tech industry alliance" [四川成立军民融合高技术产业联盟], People's Government of Sichuan Province, April 27, 2016, https://perma.cc/WCX6-2SGD

[44] "Sichuan MCF High-Tech Industry Alliance Transfer and Transformation Office was established" [四川军民融合高技术产业联盟成果转移转化办公室成立], Xinhua News [新华网], November 25, 2018, https://perma.cc/CYZ8-WPZH; "Chengdu Full Search: Sichuan MCF High-Tech Industry Alliance Transfer and Transformation Office was established in Chengdu" [成都全搜索：四川军民融合高技术产业联盟成果转移转化办公室在蓉成立], University of Electronic Science and Technology [电子科技大学], November 25, 2018, https://perma.cc/Z8EG-QTRG

[45] "Sichuan MCF High-Tech Industry Alliance Transfer and Transformation Office was established" [四川军民融合高技术产业联盟成果转移转化办公室成立], Xinhua News [新华网]; "Chengdu Full Search: Sichuan MCF High-Tech Industry Alliance Transfer and Transformation Office was established in Chengdu" [成都全搜索：四川军民融合高技术产业联盟成果转移转化办公室在蓉成立], University of Electronic Science and Technology [电子科技大学].

[46] "Company profile" [公司概貌], Sichuan Jiuzhou Electronics Group [四川九州电子科技股份有限公司], https://perma.cc/N7ZU-MWZX

[47] Alex Stone and Peter W. Singer, "China's Military-Civil Fusion Strategy: What to Expect in the Next Five Years," DefenseOne, February 18, 2021, https://www.defenseone.com/ideas/2021/02/china-military-civil-fusion-strategy-next-five-years/172143/

country's leading nuclear weapons research facility,[48] as well as the Mianyang High-Tech City (四川绵阳科技城), a MCF demonstration base.[49] MCF demonstration bases are the result of Chinese government efforts to cluster relevant high-tech parties in specific locations to foster development and spur technical innovation by creating sustainable linkages between research institutions and universities, SOEs, commercial enterprises, and funding resources. The Chinese government has set up MCF demonstration bases, like the Mianyang High-Tech City, to foster development and spur technological innovation by bringing together research institutions and universities, SOEs, commercial enterprises, and funding resources in a single location.[50]

2.3 MCF Venture Capital

In addition to industry alliances and university investment firms, Beijing is actively working to develop more funding mechanisms for MCF development. The 13th Five-Year MCF Plan calls for central and local governments to increase investment in MCF S&T efforts, and encourages financial funds and private capital to enter into the MCF investment field.[51] Moreover, the 2017 "Opinions on the In-Depth Development of MCF" (hereinafter referred to as "2017 Opinions;" 军民融合深度发展的意见) argues for the expansion of investment and financing channels for MCF, including the establishment of a national defense technology MCF investment fund, which was eventually stood up in 2018.[52]

2.3.1 National MCF Industry Investment Fund

The National MCF Industry Innovation Fund (国家军民融合产业投资基金) was initiated in 2018 by the Ministry of Finance and the State Administration for Science, Technology, and Industry for National Defense (SASTIND) in 2018 with the intent of providing funding to support the overall development of China's domestic MCF development efforts. The fund is currently operating on a total scale of 150 billion RMB with an initial phase of 56 billion RMB as of September 2020.[53] In addition to the Ministry of Finance, the fund's shareholders include several major Chinese defense SOEs, including AVIC, China Electronics Technology Corporation (CETC), China Shipbuilding Industry Corporation, China National Nuclear Corporation, NORINCO, China Aerospace Science and Technology Corporation (CASC), China

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[48] Lorand Laskai, "In Drive for Tech Independence, Xi Doubles Down on Civil-Military Fusion," Jamestown Foundation China Brief, May 9, 2018, https://jamestown.org/program/in-drive-for-tech-independence-xi-doubles-down-on-civil-military-fusion/

[49] Laskai, "In Drive for Tech Independence, Xi Doubles Down on Civil-Military Fusion;" Levesque and Stokes, "Blurred Lines: Military-Civil Fusion and the 'Going Out" of China's Defense Industry."

[50] Levesque and Stokes, "Blurred Lines: Military-Civil Fusion and the 'Going Out" of China's Defense Industry."

[51] Translation of "The 13th Five-Year Special Plan for S&T Military-Civil Fusion Development" ["十三五"科技军民融合发展专项规划], Center for Security and Emerging Technology.

[52] "Opinions on the In-Depth Development of Military-Civil Fusion" [军民融合深度发展的意见], General Office of the State Council on Promoting the National Defense Technology Industry [国务院办公厅关于推动国防科技工业].

[53] "AVIC Innovation Capital made a business visit to the National MCF Fund" [中航创新资本赴国家军民融合基金进行业务拜访], AVIC Innovation Capital [中航创新资], September 15, 2020, https://perma.cc/R2Q9-H643

Aerospace Science and Industry Corporation (CASIC), Aero Engine Corporation of China, as well as the China Academy of Engineering Physics.[54]

2.4 Talent

Beyond the aforementioned three MCF tools, talent plays an important role in how Beijing views MCF development. The "2017 Opinions" calls for the construction of a "national defense S&T talent team" that utilizes "superior whole-of-society educational resources" from military units, industry, and related colleges and universities.[55] CSET research from December 2020 highlights the important role that universities, especially the "Seven Sons of National Defense," play in enhancing China's defense talent base. Using 2019 graduate employment data from elite Chinese universities, we found that Chinese defense SOEs directly hired 6,000 graduates from 29 leading Chinese universities, and three quarters of these graduates were recruited from "Seven Sons" universities, thus demonstrating *mincanjun* in action.[56] In other words, talent recruitment is a top priority for Beijing, and there are several mechanisms by which Chinese leadership goes about recruiting and training talent to contribute to MCF efforts, including the following two examples.

2.4.1 The National Defense S&T Scholarship

China's National Defense S&T Scholarship (国家科技奖学金), established in 2005, aims to support Chinese students studying in national defense S&T disciplines within Chinese domestic universities. The program is overseen by the Ministry of Industry and Information Technology and provides 2,000 awards annually--1,200 to undergraduates, 700 to Masters students, and 100 to PhD students. Students received 10,000 RMB per academic year. Moveover, following graduation, students are required towork in China's defense S&T industry for a minimum of five years.[57]

As part of this scholarship, different universities across China are given different "demand plans" that outline the number of positions open for various positions at defense industry partners. For instance, in 2020, Beijing Institute of Technology had 152 openings, including an opening in mechanical engineering for AVIC's Shenyang Aircraft Industry Group, an opening in computer science for China Shipbuilding Industry Corporation's 716 Research Institute, openings in mechanical and electrical engineering for at the China Academy of Engineering Physics' Institute of Nuclear Physics and Chemistry, among others.[58] Beyond BIT, in 2019, Lanzhou University had 14 open positions primarily aimed at serving China's

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[54] https://perma.cc/FN2B-YKZ9
[55] https://perma.cc/U69Y-CX4G
[56] https://cset.georgetown.edu/research/universities-and-the-chinese-defense-technology-workforce/
[57] https://chinatalenttracker.cset.tech/; https://perma.cc/KE5F-H5CG
[58] From author's dataset.

nuclear industry players, including China National Nuclear Corporation (CNNC) subsidiaries Lanzhou Uranium Enrichment Co. and Hainan Nuclear Power.[59]

As similar as this program may sound to U.S. programs like the Boren or Pickering Fellowships, there are certain aspects of this scholarship program that differentiate it from U.S. equivalents. For instance, the National Defense S&T Scholarship guidelines state that those "who are not firm in their political stance, have anti-Party or anti-socialist remarks or behaviors, or those who participate in illegal organizations" will be regarded as having breached their contract. In addition, one of the requirements to apply includes "loving the motherland, supporting the leadership of the Chinese Communist Party."[60] Similar U.S. programs have no such allegiance requirements.

2.4.2 MCF Vocational Training

Beyond China's "double first-class"[61] universities, the Chinese government has been working to improve MCF capabilities at the vocational education level to increase the number of technically-skilled personnel. A 2019 report from the Ministry of Education writes that vocational schools are becoming a "backbone force" in the implementation of the MCF development strategy, building on previous efforts to encourage more recent high school graduates, veterans, and migrant workers to apply for vocational training programs.[62]

Hebei Province's Xingtai Polytechnic College (XPC; 邢台职业科技学院) is often touted as an example of MCF success in the vocational education space. The Ministry of Education states that XPC has made educational advances in the fields of military equipment maintenance and repair, special vehicle modification, military outdoor equipment, and smart sensors.[63] While XPC was formerly a technical college under the PLA's former General Logistics Department from 1979-1991, it is currently largely a civilian institution, illustrating the growing overlap between civilian and defense institutions.[64]

[59] From author's dataset.
[60] "Measures for the Administration of National Defense Science and Technology Scholarships" [国防科技奖学金管理办法], Harbin Institute of Technology, December 2020, https://perma.cc/KE5F-H5CG
[61] The "double first-class universities" (双一流大学) are a group of 42 universities that the Chinese government deems "world-class." This list represents the culmination of the National 211 (211工程) and 985 Projects (985工程), both of which aimed to improve the international standing of Chinese universities. The list of "double first-class" universities can be found here: "List of 'Double First Class' Construction Universities" ["双一流"建设高校名录], Ministry of Education, December 6, 2017, https://perma.cc/4BEX-PLLD
[62] "Create standards and paradigms for higher vocational MCF education" [打造高职军民融合教育标准与范式], Ministry of Education, October 22, 2019, https://perma.cc/GW8W-JXGJ
[63] "Create standards and paradigms for higher vocational MCF education" [打造高职军民融合教育标准与范式], Ministry of Education.
[64] "School introduction" [学院简介], Xingai Polytechnic College [邢台职业技术学院], http://www.xpc.edu.cn/xxgk/xyjj.htm

3. Policy Recommendations

It is clear that Beijing is dedicated to its pursuit of MCF. Moving forward, MCF will remain a key piece of China's development strategy and will continue to shape how it interacts with the United States and the rest of the world. MCF has yet to achieve its desired endpoint in China, and it will continue to experience internal growing pains and bureaucratic struggles over the next few decades as China works to adjust in response to broader changes and events in the global system, like the COVID-19 pandemic. However, even without operating at full capacity, MCF poses a unique and significant challenge to the United States and our allies.

As President Biden's administration develops its policy towards China, it will be critical for policymakers to articulate their goals from the start. Policies designed with the desired endstate of crippling or changing Chinese behavior will look very different from policies aimed at enhancing and promoting U.S. assets and competitiveness. Thus, in order to enact effective policy, the Biden administration must have a clear understanding of its desired trajectory for U.S.-China relations.

Many aspects of the Chinese system are inherently different from that of the United States. Anna Puglisi in 2020 wrote that the U.S. and China are not playing the same game, and that the assumptions made by U.S. entities in agreeing to collaborate with China—i.e., rule of law, market-driven competition, and accepted international scientific norms—are often challenged or ignored based on different norms of behavior and desired outcomes in China.[65] Recognizing these differences will allow U.S. academia and industry to more effectively navigate collaborations with Chinese counterparts.

Instead of trying to incentivize changes within China, the Biden administration should work to bolster our own ability to mitigate the challenges posed by China while promoting collaboration where necessary and beneficial. The United States should avoid policies aimed at crippling or changing Chinese government strategies and commercial behavior. Although carrots and sticks may seem like viable options, China has demonstrated time and time again that they are willing to make surface-level changes to appease an international audience while continuing to pursue their own agenda.

In addition to the policy recommendations below, the U.S. government should continue working with allies to handle MCF-related issues multilaterally. Ongoing efforts like the Quad Critical and Emerging Technology Working Group will be crucial to tackling China's efforts at supply chain disruption, as well as Beijing's push to establish its own technology standards globally.[66] Moreover, attempts like the Biden administration's recent "Steps to Bolster Registered Apprenticeships" and Congress' "Global Leadership in Advanced Manufacturing Act," among others, could go a long way in bolstering the U.S.' domestic

[65] Anna B. Puglisi, "The Myth of the Stateless Global Society," *Beyond Espionage: China's Quest for Foreign Technology*, September 2020.
[66] "Fact Sheet: Quad Summit," White House, March 12, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/12/fact-sheet-quad-summit/

technology and talent capabilities, putting us in a position to outcompete China solely based on our own prowess.[67]

To conclude my analysis, I propose the following recommendations for U.S. policy:

3.1 Establish an interagency working group within the U.S. government to increase awareness of China's MCF efforts and ensure that various departments and agencies are equipped to make effective policy within their individual jurisdictions.

MCF is a moving target, and relevant parties inside the U.S. government will need to find ways to keep themselves up to date on developments associated with MCF. An interagency working group on MCF and related issues would allow various parts of the U.S. government to come together to ensure that there is not only a common understanding of the challenges and risks that the U.S. government faces, but also collaboration in devising the most viable tools to mitigate those risks.[68]

This interagency working group would be required to meet on a regular basis to discuss new MCF developments and trends, larger trends in Chinese domestic politics, and updates on how various U.S. government offices and departments have been handling MCF-related issues as of late. In addition, requiring this interagency working group to create deliverables for U.S. government employees would go a long way in promoting understanding of China's MCF strategy beyond the scope of those directly involved. These should likely come on a quarterly basis to ensure that findings are kept up to date, and the release of each quarterly deliverable could come with an unclassified executive summary to be published for public consumption.

Furthermore, given the wide-ranging nature of China's MCF strategy, the U.S. government must be equipped to understand and tackle MCF from different angles. Although some have called for creating a unified definition of MCF across the U.S. government, I believe that this would cripple government departments' ability to deal with MCF within their own jurisdictions. Additionally, considering again the vast nature of MCF, it would be nearly impossible to come up with a concise yet actionable definition for all of the U.S. government to use. A working group like the one I've proposed would facilitate interagency discussion and cooperation and assist in ensuring that U.S. government agencies are working in concert.

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[67] "Fact Sheet: Biden Administration to Take Steps to Bolster Registered Apprenticeships," White House, February 17, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/02/17/fact-sheet-biden-administration-to-take-steps-to-bolster-registered-apprenticeships/; "S.1427 - Global Leadership in Advanced Manufacturing Act of 2019," U.S. Senate, https://www.congress.gov/bill/116th-congress/senate-bill/1427

[68] An attempt at standing up a similar working group took place in the previous administration; however, its mission went beyond technology transfer and MCF issues, and it is unclear if the group will continue under the Biden administration. For more information, see: "Acting Secretary Wolf Establishes China Working Group to Address Intensifying Threat," Department of Homeland Security, July 24, 2020, https://www.dhs.gov/news/2020/07/24/acting-secretary-wolf-establishes-china-working-group-address-intensifying-threat

3.2 Create a repository of open-source due diligence materials that can be used by academia and industry to allow them to make more informed decisions about collaborations and interactions with Chinese counterparts.

Last year, CSET research identified several prominent U.S. tech firms that were potentially inadvertently aiding China's military modernization efforts through their subsidiaries' relationships with defense-affiliated universities in China. For instance, U.S. chip design firm Synopsys apparently hosted an advanced semiconductor design training session at the PLA's National University of Defense Technology, according to China's Ministry of Education.[69] U.S. industry and academia may therefore be in need of more resources to conduct due diligence operations, particularly as they relate to interactions with Chinese entities. However, some instances may reveal that a dearth of information is not necessarily the problem at hand.

It is important to note that problematic interactions between U.S. entities and Chinese entities linked to the government and more specifically, the PLA, reflect both a resource problem and a financial problem. In many instances, U.S. universities and companies lack the time or Chinese language resources to conduct proper due diligence before entering into cooperation agreements. For instance, additional CSET research demonstrates that Chinese entities are more likely to omit or obfuscate information in English language sources than they are in Chinese.[70] This justifies the need for a catalogue or repository that can provide the Chinese language and area studies background necessary for U.S. firms and universities to make informed judgements. The need for these resources has similarly been articulated by CSET's William Hannas and Huey-Meei Chang, as well as the China Strategy Group.[71]

On the other hand, in other instances like the alleged Synopsys case, the problematic aspects of the collaboration appear more obvious, even to untrained eyes, suggesting that some U.S. institutions are willing to overlook potentially controversial elements of Chinese collaborations in favor of financial gains or market advantages. In these instances, no amount of due diligence materials are likely to sway opinions on collaboration. However, the existence of due diligence materials can help to weed out instances of "I didn't know any better" and separate those who truly were unaware of the issues and those who chose to ignore them.

3.3 Provide the Securities and Exchange Commission (SEC) and its Public Company Accounting Oversight Board (PCAOB) with Chinese language and area studies resources to assist in auditing and assessing Chinese firms listed on U.S. stock exchanges.

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[69] Fedasiuk and Weinstein, "Universities and the Chinese Defense Technology Workforce."
[70] Ryan Fedasiuk and Emily Weinstein, "Overseas Professionals and Technology Transfer to China," Center for Security and Emerging Technology, July 21, 2020, https://cset.georgetown.edu/research/overseas-professionals-and-technology-transfer-to-china/; "Dewey Murdick, Daniel Chou, Ryan Fedasiuk, and Emily Weinstein, "The Public AI Research Portfolio of China's Security Forces," (forthcoming).
[71] William Hannas and Huey-Meei Chang, "China's STI Operations: Monitoring Foreign Science and Technology Through Open Sources," Center for Security and Emerging Technology, January 2021, https://cset.georgetown.edu/research/chinas-sti-operations/; "Asymmetric Competition: A Strategy for China & Technology," China Strategy Group.

In order to assist the SEC in handling U.S.-listed Chinese firms, the SEC should stop putting the onus on the Chinese government to provide the necessary information and materials for audits and investigations. Instead, the SEC should have its own in-house Chinese language and area studies capabilities to conduct investigations and assess the accuracy of information provided by China. This expertise will also allow the SEC to make more nuanced assessments of connections to the Chinese military-industrial complex in audits and investigations.

The previous administration sought to tackle some of the issues associated with Chinese firms operating in the United States, as well as U.S. investment in Chinese firms with close ties to the Chinese military-industrial complex. Although moves like the January 2021 Executive Order 13974 and the "Holding Foreign Companies Accountable Act" are promising first steps, both come with side effects that could potentially harm U.S. competitiveness.[72]

First, attempting to designate Chinese companies as "Chinese Communist Military Companies" (CCMCs) or "Chinese Military Companies" (CMCs), as designated in the NDAA's Section 1237, is a difficult undertaking, particularly as MCF continues to further blur the lines between the defense and civilian sectors.[73] For instance, the U.S. District Court for the District of Columbia recently ruled that DoD's designation of Chinese tech firm Xiaomi as a CCMC was "inadequate" and "lacked substantial evidence."[74] The U.S. government needs more guidance and assistance beyond DoD to assess the risks associated with certain Chinese companies operating in the U.S., and providing the SEC with the in-house Chinese expertise could help to lessen the burden placed on DoD.

Secondly, although attempts to force certain CMCCs to de-list from U.S. stock exchanges may provide some amount of protection to U.S. investors and consumers, it also puts the U.S. in a position to lose valuable insight into Chinese corporate records and activities. These records and filings are important pieces of open source information that the U.S. government would likely be unable to access. Currently, it is difficult to obtain stock information and filings from those firms listed in Mainland Chinese stock exchanges, and recent developments in Hong Kong have put future access to Hong Kong Stock Exchange filings at risk. Although there are indeed costs and benefits associated with allowing certain Chinese

[72] Executive Order 13974, entitled "Amending Executive Order 13959Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies" is an updated version of Executive Order 13959 from November 2020. For more information, see: "Amending Executive Order 13959 Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies," Executive Office of the President via Federal Register, January 19, 2021, https://www.federalregister.gov/documents/2021/01/19/2021-01228/amending-executive-order-13959addressing-the-threat-from-securities-investments-that-finance; "S.945 - Holding Foreign Companies Accountable Act," U.S. Senate, https://www.congress.gov/bill/116th-congress/senate-bill/945

[73] "H.R.6395 - National Defense Authorization Act for Fiscal Year 2021," U.S. House Representatives, https://www.congress.gov/bill/116th-congress/house-bill/6395/text

[74] "Granting Plaintiffs' Motion for Preliminary Injunction; Granting Plaintiffs' Motion for Leave to File Supplemental Declaration," Xiaomi Corporation vs. Department of Defense, United States District Court for the District of Columbia, March 12, 2021, https://www.courtlistener.com/recap/gov.uscourts.dcd.226816/gov.uscourts.dcd.226816.21.0_1.pdf

firms to remain listed in the United States, equipping the SEC with its own Chinese experts would put the U.S. in a better position to mitigate these risks.

3.4 Improve the U.S. government's ability to audit supply chains and establish industry reporting guidelines to identify significant chokepoints, ensure compliance with requirements, and support allies and partners, as articulated by the China Strategy Group.[75]

In its fall 2020 memo, the China Strategy Group recommended establishing a U.S. government office to handle the aforementioned issues regarding supply chain auditing and industry reporting. Such an entity would indeed strengthen the U.S. government's ability to handle the challenges posed by China. Moreover, this office should have its own in-house Chinese language and areas studies capabilities to investigate compliance issues associated with Chinese firms both in the United States and globally. It should also be tasked with foresight analysis on Chinese strategy and policy to assist the U.S. government in making accurate predictions about Beijing's intentions, especially as they relate to supply chain chokepoints and key strategic industries.

Taken together, U.S. government policies aimed at improving our understanding of China's domestic system and capabilities have the potential to place the United States in a stronger position to mitigate the threats associated with China's MCF strategy while supporting and enhancing U.S. competitiveness. Moreover, we will not succeed if we attempt to mitigate these threats in isolation of our allies. Working in tandem with like-minded partners, President Biden, Congress, and future U.S. presidential administrations have the ability to navigate the U.S.-China relationship and protect U.S. interests without severing all ties with China.

[75] "Asymmetric Competition: A Strategy for China & Technology," China Strategy Group.

PANEL III QUESTION AND ANSWER

COMMISSIONER FIEDLER: Thank you very much. We will start the questioning with Chairman Bartholomew.

CHAIRMAN BARTHOLOMEW: Thank you to our witnesses. I'm feeling actually quite overwhelmed about all of the different information that everybody has provided and -- you know, we've gone on record as advocating for more data. But I'm beginning to wonder how -- how that data can be organized, right? I mean, when we look at what happened at 9-11 there wasn't really a shortage of information, there was a -- it was a firehouse of information and people were not able to pull out the information that would have led to knowing what was going on. So, I guess I'd like to hear from all of you some suggestions about how the data could be usable by, I'm thinking of companies in particular, or universities that don't have necessarily the expertise that you all bring to the table.

COMMISSIONER FIEDLER: Who wants to be first?

CHAIRMAN BARTHOLOMEW: Emily, why don't we start with you?

MS. WEINSTEIN: I can start with a quick point. I definitely agree. I think, you know, as my fellow panelists pointed out, there is no dearth of information on China, especially in the open source. I think one of the first issues in kind of making -- not only making this information available to the general public, but also making it usable is again, the language barrier. And I think that's kind of the first step that we need to get to as far as organizing it and kind of streamlining it for public consumption.

So I will say, to organize it I think there's a way to shape it in a sense that maybe we could have, for example, an industry bucket, have an academia bucket. But I think, you know, as we demonstrated with -- you know, some of the things I mentioned and some of my panelists as well, there really is kind of a blending between these. And I think it's a difficult question, and I think I'm still wrapping my head around it too, but I think promoting, like, dialogue between industry and academia, and even government counterparts as well about these types of information can help to make it more digestible for audiences that maybe aren't as focused on national security.

COMMISSIONER BARTHOLOMEW: Any of our other witnesses?

MR. ARTERBURN: Yes, sure I'd like to offer some thoughts. So again, I think the question is a very important one, and very timely as well. In 2019 we began the Federal Data Strategy, just to get a sense of what data we hold across our federal agencies. Now we can better use that data. But it's mostly focused on what do we already have? And how is it held and how is it catalogued? Mostly for domestic-facing reasons.

But I think now is a great time to incorporate our China national security interest in part of that internal data audit that we're doing. But I think there's also a broader set of questions that need to be considered as well. And the first is, what systems are our various agencies using that have equities in the China national security problem set? And are those interoperable? Do they provide the security, access, and privacy controls required for multiple organizations with different authorities and different -- for mandates -- the means by which to collaborate?

I think for this reason publicly available information is very valuable, because it is without restriction that might come from more classified sources, but in many cases can produce the same level of fidelity from a sort of action-oriented point of view. I think, however, we'll also face a cultural sort of change of mind in terms of how we as an -- how we as a government posture towards the open source. Just because this data is cheaper does not necessarily mean it's less valuable. And I think there's actually a tremendous opportunity for us to work with allies in developing a strategy about how we better leverage cheap, publicly available data sources to make sure that we're directing our expensive assets in the collection and analysis process towards only the most intractable problems, such that that public data can help answer the lowest-hanging fruit, and inform more tailored policy and enforcement responses.

CHAIRMAN BARTHOLOMEW: Thank you. Nate, anything?

MR. PICARSIC: Agreement with my co-panelists. And I would just add that I think an important feature, at least in the immediate, may be to think about the competitive dynamics that we're in the middle of, competing with a direct strategy from the CCP and perhaps there is need for imposing onto our own data and collection processes.

A prioritization logic that is informed at once by the strategy that's pursued by the Chinese Communist Party -- so what sectors of interaction, and integration appear to be important to them? And then also based on our own internal prioritization logic from the United States Government perspective of where are our assets most at risk? Which of our actors are most targeted, or most vulnerable to Chinese advance? And perhaps that type of framework can be imposed onto how we think about different types of data, and different types of collaborative opportunities, like my co-panelists have raised.

CHAIRMAN BARTHOLOMEW: Thank you very much.

COMMISSIONER FIEDLER: My co-chairman, Mr. Borochoff.

COMMISSIONER BOROCHOFF: Thank you. First I just want to say, I think we could probably spend an entire day talking about open source and publicly available information because almost all of the witnesses that have spoken and are going to speak allude to it in some fashion. So that's clearly a weakness we have and I am not going to ask a question about it because you just gave several good answers and you could probably talk about it at length.

I am interested, Mr. Picarsic, in your comments about the permanent normal trade relation status. And if you would expound a little on your view of what we should be doing relevant to that.

MR. PICARSIC: Yes, so in my written submission, a policy recommendation that I included was interest in encouraging Congress to debate the permanent normal trade relation status that China enjoys in this country. I think there's more than ample evidence that China's human rights records demonstrate violation of the Jackson-Vanik Amendment of the 1974 Trade Act, which should provide ample justification to open up this debate. And I think this is the type of strategic measure, even if at the point of messaging, that will draw attention of the private sector here in the United States and draw their potential action to the types of threats that we're discussing here on this panel that largely, I think, most commercial actors assume that they can wait out. That these national security risks will over time fade away, and that there's no immediate risk attached, or cost attached to the types of exposures that they have to the Chinese military system.

COMMISSIONER BOROCHOFF: So, to be clear, what you're saying is that the nature and structure of the PNTR opens the door to a question that leads into the more important tool we need to effectively start to leverage some areas that need to be leveraged at the moment.

MR. PICARSIC: Yeah, and I think that's mostly the attention and action of the U.S. private sector. So being able to cue that.

COMMISSIONER BOROCHOFF: Wake up the giant.

MR. PICARSIC: Yes.

COMMISSIONER BOROCHOFF: Thank you very much, that's -- I'll yield the rest of my time.

COMMISSIONER FIEDLER: Vice Chair Cleveland?

VICE CHAIRMAN CLEVELAND: Thank you very much for your testimony. I'm looking at two different pages and I want to make sure I get, sort of, the construct right. Mr. Picarsic, you're suggesting that examples of a prioritization of a framework -- you should identify areas of greatest risk, and that would include connections to China's mil-civ fusion program, government-led industrial policy, and human rights abuses, asking ourselves does it collect or fuse and apply military-relevant technology? And then the proximity of the investment target to Chinese government entities, state-backed, state-owned. That seems to be your framework.

And Ms. Weinstein, I heard you say we should think about buckets that are industry-based, academia-based. And Mr. Arterburn, if I am looking at your testimony, it says specifically U.S. policymakers should consider the following areas: Party-state equity for financing, political exposure in industry sensitivity, market structure, and goal compatibility between the company and the party state. And then you consider each of those in turn.

There's some overlap there. I think that we could come up with a coherent taxonomy. What I am wondering is, if we were able to capture all of those, we could cluster or capture those activities in some meaningful way for consideration by somebody in the government, what are we really talking about being at risk in terms of international, an in particular, U.S. investment? And to that point, Mr. Picarsic, you mentioned Vanguard and Hikvision. This morning we got a list of companies. Vanguard was the largest investor in SMIC, and let's see, Hikvision was the capital group. But it appears that the amounts are not substantial. So even if we organized ourselves in a meaningful way to collect data, to apply it for outbound investment, I'm wondering what we're really talking about in terms of stakes that U.S. investors, institutional and otherwise, have in these companies that you've identified as national security risks.

MR. PICARSIC: Let me go first, thank you. This is a tremendous question and I think that it's not the simple point of capital that's exposed. Instead it's the confluence of the opportunity cost and the direct cost of capital that's exposed, as well as the value that's derived on the other side. So in terms of the opportunity cost, we're funding -- U.S. pools of capital funding a Chinese company that's designated as a military company, or a military-civil fusion contributor, is, all else equal, decreasing their cost of capital, and at the same time, moving pools of capital that could be supporting the cost of capital calculus for a U.S. analogue.

So that tradeoff between the value derived on one side and the opportunity cost on this side immediately doubles the value of what we're talking about. And then from there, there's a degree of legitimacy that's afforded to these actors, which then allows them a sort of compounding effect, to go out and participate in global markets and have some degree of legitimacy be bestowed upon them by having pools of U.S. capital supporting them. And then we have the sort of downstream of thinking about which of these actors posed the most immediate and direct threat.

So in some cases, in pure civilian companies, perhaps this is not so egregious and this guarantees that these actors participate in global trade and we can monitor what they're doing through publicly available information, and maybe that's a net positive. But in other cases we're clearly going to have examples where the value derived on the Chinese side does produce immediate outcomes in terms of research and development, in terms of military program contributions to the PLA, as well as capacity to project power and to alter the cost of empire calculus. So how China positions itself globally, how it retains information that can feed back into this system. It's difficult to assign a direct immediate value, but there is this confluence of factors that there's no other way to address at the root cause other than by capital.

VICE CHAIRMAN CLEVELAND: Well, and I am also mindful of what Chairman Bartholomew raised this morning, which is we don't want to wait until problems become enormous in terms of the size of capital investment. But I do think it's important in terms of raising concerns with our colleagues on the Hill, that we identify what the scope of the threat is, not just -- and I think that was a brilliant presentation of opportunity costs, but what's the actual value? And I think that's a key question to ask. Mr. Arterburn and Ms. Weinstein?

MR. ARTERBURN: Sure, yeah, no, I think you ask a very important question that, in identifying risk in the Chinese commercial space, we need to first ask ourselves what is at greatest risk in the U.S. national security interest? Risk is a function of vulnerability, consequence, and scale. And so we must first sort of audit what are our national interests, and where are we most vulnerable? And which vulnerabilities, if exploited, will result in the greatest consequence to our national interests?

And I think if we look at examples of how the Chinese state and Chinese actors that may not aligned with the state have compromised U.S. national security interests over the last few decades, there are several examples. Some are things like technology transfer. Others are things like political interference through illicit dark money in campaigns and democracies. And others are sort of, you know, using front companies to make investment that are adversarial, I think is the term that some have used.

And so, I think, to really answer that question there's really sort of a first-order audit that we need to do and understand where are we vulnerable in a systemic sense? In ways that people may be able to contribute money to political campaigns without proper disclosures, where companies may not need to disclose their beneficial owners in ways that would allow us to understand who is ultimately behind those companies. Or maybe where our universities don't have the proper disclosure systems that would allow us to identify where a Chinese state actor might be involved.

Now this is sort of a much broader policy conversation, I think, but speaks to really the systemic nature of the solutions that we need to pursue, some of which are domestic-facing, but I think are really our best chance at having a durable sustainable solution from a policy point of view.

MS. WEINSTEIN: And I would just go ahead and echo what my co-panelists said, and just add briefly too that I think, when assessing the risk that China poses to the United States, I think we need to think about these in terms of different buckets of risk. What is actually at risk? Are we thinking of instances where health information, or PPI is at risk? Are we thinking of information where proprietary technology, or specifically defense technology or information is at risk? Or are we thinking, like Jason just mentioned too, whether instances where our democracy is being put at risk by things that China is doing? And I think each of these buckets of risk will take a different type of cost-benefit analysis as far as determining collaborations, or interactions with China, or how we, yeah, interact with China moving forward.

VICE CHAIRMAN CLEVELAND: Okay, I think we've broadened the problem rather than narrowed it in some ways. And I -- you know, there's a lot of conversation, and Commissioner Wong mentioned this morning the desire for some kind of outbound CFIUS organization, and that that has some merit. But I am now not sure how to think about how we wrap our arms, you know, what the taxonomy is. What the standards would be. What is it that -- because democracy and proprietary technology and tech transfer are just, they're large categories.

And having served in government, I'm not sure I'd like to turn over to anybody that kind of a broad notion. So, if you have thoughts for the record afterwards on how we might narrow this, I'd really appreciate it. Thank you. Thank you very much.

VICE CHAIRMAN CLEVELAND: Jeff? You're muted, Jeff.

COMMISSIONER WESSEL: Jeff, you're on mute.

COMMISSIONER FIEDLER: I'm sorry. I might continue this discussion that Robin has raised. We have restrictions in place, currently. And there's a discussion about whether some of those restrictions are proper or not. So, there's a targeting issue, number one. And some of you have already talked about priorities. And then there's a expectation of a reasonable process on the part of our government before they put these names out there and restrict investment in these entities.

So, you know, I mean, there's a major difference between somebody who is providing the innards of ballistic missiles, versus lug nuts for jeeps for the PLA. And so -- but everybody -- and it seems to me that the government should be obviously prioritizing those that are the most important. And to Robin's point that you don't necessarily want people in the government to be deciding all of these things, then there seems to be the necessity for some outside cooperation in that at least contributing information to the decision-making process. And I get that it's layered on top of interagency this, that, and the other thing.

So it's critical and complicated. Now -- but we're presented with that problem today. We have issued restrictions. Are they fair? Are they not? How should we proceed as a government?

VICE CHAIRMAN CLEVELAND: Jeff, could I just correct one thing?

COMMISSIONER FIEDLER: Yeah.

VICE CHAIRMAN CLEVELAND: I didn't say I didn't want the government involved. I just don't want them handed something that -- that is so large and unwieldy that we --

COMMISSIONER FIEDLER: No, I -- I --

(Simultaneous speaking.)

VICE CHAIRMAN CLEVELAND: -- that we end up --

COMMISSIONER FIEDLER: I'm sorry.

VICE CHAIRMAN CLEVELAND: -- enhancing the problem rather than -- than solving it.

COMMISSIONER FIEDLER: No -- yes, yes -- no, I mean I -- I mean, what I think I meant was that we don't necessarily want the government to consider only its own information and not anybody else's. So, comments? How do we structure this?

MR. ARTERBURN: Sure, no I think it's a very important question. And I think the -- the threats from China have been described as a whole of society threat, and I think we need to imagine whole of society solutions. And that is a way -- I think publicly available information is a way that we can engage key stakeholders. The example of what constitutes a dual-use good that meaningfully could contribute to the PLA's capabilities? We really need the specialist community, which includes academics and technical folks in industry, to contribute some answers to that question of which lug nut is actually going to help the PLA make a better missile.

And we can only do that if we are willing to engage and we have a mechanism through which to do it. Which means that we are more willing to have open conversations with those broad range of stakeholders who can contribute important perspective there.

And I think that the last note that I'll make is that sometimes it's in the national interest to collaborate with China. And I think it is important that was have the means of more -- having a more detailed and nuanced understanding of where risks specifically lies so that we don't throw the baby out with the bath water in removing opportunities where there might be a productive way forward.

COMMISSIONER FIEDLER: Emily, Nate? Anybody?

MS. WEINSTEIN: Yes, I think I'll add briefly to Jason's comments as well. I think in adding certain types of specialists who like, like Jason mentioned, could, you know, identify the specific lug nut that is, you know, useful to the PLA -- I think that is kind of, you know -- it's a difficult thing to do, but I think stepping back, I think there's a place to kind of look at what China is saying as far as what their strategic industries are. Because I think that, you know -- if China is proclaiming that they want to improve their capabilities in biotechnology, or in new energy vehicles, or things like that -- there are -- I mean, they're pretty much handing us kind of their -- their goals for the next 10, 20, 50 years.

So I think as far as deciding where to kind of -- where the U.S. should look as far as maybe protecting our own industries or kind of where we needed to direct our educational resources to, I think taking a look at Chinese policy documents and really saying, you know, okay China -- you know, the fourteenth five-year-plan just came out. We see that they're interested in these specific sectors. Let's make sure, as the U.S. Government, that we go ahead and start to talk to people both who work, you know, in academia in this sector, in industry -- and try and work with them to kind of not only give them a better understanding of the -- the challenges posed by China -- China's interest in this sector, but also to kind of work with them as they navigate collaborations or interactions with Chinese counterparts.

COMMISSIONER FIEDLER: Thank you. Okay, Commissioner Goodwin?

COMMISSIONER GOODWIN: Thank you Commissioner Fiedler. And thank you again for the witnesses for their great testimony. Mr. Picarsic, I want to talk a little bit about investment restriction. We touched on this in our first panel this morning. But you in your written testimony discussed the executive order that has designated -- pursuant to which some companies that have been designated as being subject to restrictions and you are pretty clear that for these restrictions and that executive order to be effective, it will require and you specify clear and consistent implementation.

In that first panel, I -- I raised a question about a recent court decision -- a U.S. District Court of Columbia reporting on the Xiaomi, who obtained a preliminary injunction preventing the application of those restrictions. That company and a lot of the media coverage has played at additional litigation along the same lines. I want to ask sort of a different question, though. You know, in your testimony I think you point out that even the efficacy of these restrictions still raise a more fundamental question which is what -- what good does it do to restrict investment in these companies if large American investment firms can still invest in those same companies' affiliates and public entities. Which to me raises some political questions here. How could those sorts of restrictions and those sorts of concerns be raised and implemented, and on the heels of the decision by the District Court last week, and the prospect of additional litigation, will that make it more politically difficult domestically to pursue the sorts of restrictions -- or at least assess the sort of restrictions that you may be suggesting in your testimony?

MR. PICARSIC: Thank you, I think this is a fantastic question. It speaks to the core of the task at hand immediately and the importance of this dialogue. So again, thank you for the chance to contribute, and thank you for convening this discussion. I think that I would actually point to the points that my co-panelists have raised -- that there is sufficient information available from primary source, Chinese language, publicly available information, to document the scope of China's military-civil fusion strategy, apparatus, ecosystem and to document the role of actors therein.

And I think that the -- the task that allows us to implement is a collection one and an analysis one that addresses the scope of military-civil fusion, documents it clearly, and communicates that documentation and analysis in a more rigorous fashion -- and in a more transparent fashion. And I think there's a guide to do so offered in the 2021 National Defense Authorization Act that reauthorizes the original military company tasking from the 1999 NDAA. So that's probably the first place that I would look in guaranteeing that Congress implement that guidance and that it resource the authorities in the U.S. Government that are tasked with carrying it out appropriately. So I think Emily previously mentioned staffing SEC with Chinese linguists and analysts. I think that there's probably a need for guaranteeing that even in the DoD, intelligence community, and Treasury offices that are implementing these measures, that they also be receiving the appropriate scope of resources and type of staffing to carry out the task.

COMMISSIONER GOODWIN: Well, but more fundamentally, if on the heels of a loss in a lawsuit court case and the prospect for additional adverse decisions, do you think that will affect the political appetite to move forward with the sorts of initiatives that you're discussing, especially in the face of potential pushback by business and industry groups?

MR. PICARSIC: Yes, I think it's going to impact the political appetite, and it's going to fuel -- as you're suggesting -- the private sector impetus and interest in combating these types of restrictions and measures. There will be active measures taken by Chinese Communist Party affiliated individuals and entities to engage in information and legal competition on these fronts. I think that we need to, you know, be certain that that's the case. And I think that the -- really the only solution to that within our system as it exists -- adhering to the norms and values that make our economic model work -- is to be transparent and documenting clearly the violations that we see. But I think that, even in this case, I would suggest that there is material that should be made more public about this individual designation and decision. I haven't reviewed in extreme detail any of the disclosures made as a part of the case, but my suspicion would be that there's available public information that hasn't been considered by either side of -- of that dispute that might be and should be made available.

COMMISSIONER GOODWIN: Sure. And I certainly wasn't asking or opining myself on that individual case, but just in the abstract -- in the face of these adverse decisions, was curious as to what you thought -- what sort of impact that would have on our efforts. So thank you very much.

MS. WEINSTEIN: Commissioner Goodwin, if I could just quickly add a point -- just briefly on the Xiaomi, I know we're tight on time. I just think one of the things that I noticed in looking at that injunction from last week was that as good as the DoD and the NDAA's definition of military-civil fusion is and how well they, in my opinion, define what a Chinese Communist Military Company is, I think this case shows the need for -- you know, it's great for everyone to have a kind of solid definition of MCF across the U.S. Government. But I think in particular, individual offices, departments, agencies need to be able to develop their own types of more succinct and more applicable definitions of military-civil fusion so that they can use them as a policy tool within their individual jurisdictions, and I think this was a case maybe where the definition of military-civil fusion, or a Chinese military -- or a Chinese Communist Military Company might have been too broad, and therefore Xiaomi was able to kind of find ways to circumvent some of that.

COMMISSIONER GOODWIN: Thank you.

COMMISSIONER FIEDLER: Okay, Commissioner Kamphausen?

COMMISSIONER KAMPHAUSEN: Thank you to all of our panelists. It's been a terrific panel so far. Mr. Arterburn, your bottom-line -- and I am quoting here -- is, China's political economy poses systemic national security risks to the United States. So that's either a blinding flash of the obvious, or -- given the work that you've done in this area and the breadth of the rest of your testimony -- really prompts me to ask, what is unique -- what has changed? Why are you saying this now? Right -- is it -- is it so different from an earlier point in your analytical career? Is it that – and in the end of this section you -- you quote Jude Blanchette's piece and it talks about CCP Inc,

focused on creating an entirely new political economic order -- I mean, is that -- I want you to -- to spend a little time fleshing that out.

I think for some of us who have been at this a while, military-civil fusion is the latest iteration of a longstanding trend in China on the part of the Party and the military to leverage that which was better in the non-military part of the economy for -- for military use. But it would be helpful to hear your view, and then also Mr. Picarsic's and Ms. Weinstein's on whether it's qualitatively different. Right? Is a -- has a threshold been crossed and we ought to think about it -- military-civil fusion in ways very distinct from the past?

So two questions, first, why now would you say what you say here about China's political economy posing systemic national security risks? I smile when I read it because it's self-evident at one level. But -- but really, that's a prompt to get you to talk more about your -- why you would emphasize that at this point. And then the broader question to all three if we have time, what's different about MCF from past patterns of behavior?

MR. ARTERBURN: Yes, thank you for that question. And I have actually asked myself that question before I published it. And what is -- is this not obvious? Or is this actually a new idea? And so I think the way that I've sort of come to it in my head is that I -- I've gotten the sense that the most recent policy conversation as our community has achieved consensus about the threats that China poses to the United States has seemed to overstate the role that the CCP plays in the economy, as if to imply that we need to establish a CCP operation, or CCP connection, in order to state its urgency. While overlooking, I think, some of the more fundamental and banal ways that China's domestic economy -- in which there is collusion as an endemic features -- poses certain national security risks where we don't necessarily need to find a state connection for there to be an urgent problem that we need to address.

So the one examples I would give would be from Washington -- or, Wall Street Journal's reporting last June where a satellite company called Huaxun Fangzhou -- they -- the chairman of the board of directors who sits on the All-China Federation of Industry and Commerce -- was in the United States as -- in the capacity as the chairman of a company that is publicly traded, attending fundraisers -- and political fundraisers in the United States.

Now that is perfectly legal, in many ways, but U.S. standards and by U.S. campaign finance law. There was no wrongdoing necessarily found. But what it means is that we have a certain vulnerability where someone who sits in formal, political institutions within China may be able to participate in our democracy and our system in ways that, simply because conceptually we're not treating it as the same issue, might sort of fall through the cracks and undermine our interests in ways -- while they're pursuing perfectly normal and licit commercial interests, to maybe increase profits in a new important market where there's a significant market for technology products in the satellite space -- and we need to be more attentive to those more domestic and systemic features. And so I -- I seek when I use those words to -- to draw it out.

And I think what's fundamentally changed, to your second question, is both the scale of this -- with the top 100 conglomerates being 500 companies are now 15,000 -- and also the urgency of it, with the volume of Chinese companies that are now pursuing globalization and impinging on U.S. interests and in U.S. markets in new ways, whether it's through capital markets domestically, direct investments and acquisitions, participation in joint collaborative research with American universities and others.

COMMISSIONER KAMPHAUSEN: Before Nathan and Emily address the second question -- I mean, your analysis of the problem really begs a comparative methodological answer, right? Would we see similar patterns of behavior on the part of Russian oligarchs, albeit with Russian characteristics -- that's beyond our writ. But it does suggest we need to understand this piece of the problem in more nuanced ways than we have before. Okay, Nathan.

MR. PICARSIC: I think the -- the only thing I would add -- and I think, complete agreement on the -- the scope question -- would be that what is available with that scope as a function of changes in the security environment. So we do have a point where we are today, possibly at an inflection where new types of technology, new rules that govern those technology, are likely to be locked in in some capacity for some amount of time. And at that pivotal sort of inflection moment it might be more important than other times -- particularly given the relative balance of power -- to pay more attention and be more active, I think against the risks that I completely agree have been largely evolutionary within the domestic policy system in China and the concept of military-civil fusion. So I think we can respond to the national elevation of this policy within China, but as much or more so, it's changes in the security environment that present different -- perhaps more immediate type risks in this current period.

COMMISSIONER FIEDLER: Okay, Emily, you have anything to say?

MS. WEINSTEIN: Yes, I would just add too -- I think -- you know, again, besides the fact that, you know, military-civil fusion has been elevated to a national level strategy under Xi, I would also add that the piece to me that stands out among many that is, I think, unique at this point in time is again this -- this spinning off side to military-civil fusion. Whereas previously we've seen an emphasis on, okay, the commercial side in China -- the civilian side is going to be where the most innovation is happening. We're going to try and funnel some of that technology and know-how to the military, and now we're seeing the opposite of that. We're seeing that junzhuanmin -- so the transformation or the spinning off of military technology into the civilian sector.

To me I think, what -- you know, among kind of the many implications that that brings for U.S. policy, I think it hints at kind of where Xi Jinping and where Chinese leadership see the PLA in its military modernization process. I think showing that there are certain technologies on the military side that are good enough to compete in the civilian sector, or civilian industry, should be kind of a wake-up call to U.S. policymakers to say, oh -- okay, hey, you know, China -- you know, China's military capabilities are -- are improving and they're getting to the point now where, again, they can compete with the -- what were previously thought of as the more innovative entities on the commercial side.

COMMISSIONER FIEDLER: Thank you. Commissioner Scissors?

COMMISSIONER SCISSORS: I was going to ask a version of this question, but Robin asked and then Jeff asked, and so I am going to make it more pointed. Either I didn't understand your answers, or you guys didn't give very good answers. And I am going to try to force you to answer in a way I understand. Congress is working on how to structure this in terms of -- I'm not saying they're only doing this, but they're definitely doing this -- how to structure our approach in terms of sectors -- key sectors for outbound investment restrictions, if we're going to adopt them -- key sectors to evaluate supply chain security, key sectors to evaluate in terms of export controls.

I want you guys either to tell me I'm not doing that -- I am not going to structure our response by sector, or -- and tell me why -- or tell me what you think the key sectors are. I want one of those two things because that seems to me like a really obvious way to answer the question. It's a way policymakers are trying to answer the question. If they're wrong, then let's push back. But if they're right, you know, I want more specific answers than what you've given so far, without putting words in Robin and Jeff's mouths, but they've led me down this path. And so, all three of you -- I don't want to use sectors, or these are the sectors where I'd start. Emily.

MS. WEINSTEIN: I'm happy to start, thank you. I would say, so -- I am willing to go down the route of identifying specific sectors. And I think it ties back to the comment I made earlier about looking at, for example, in the fourteenth five-year-plan, or one of the policies that's come out -- I know the China usually their catalogue of strategic and emerging industries around this time as well. So I would say a great place to start, as far as where we want to start limiting access on a sector by sector basis would be to look at specifically what China has said is key to their goals moving forward. So I -- again, I don't have the Fourteenth Five-Year Plan in front of me at the moment, but I would say that's at least a good place to start.

COMMISSIONER FIEDLER: Nate? Jason?

MR. PICARSIC: Yes, I would agree. So taking the scope of ambition offered by Chinese planning documents, and then I would add filters for the -- the current balance. So, China's role in a given sector. So, there are going to be some where China already has an outsized position, so it should cause some degree of concern. Susceptibility to vertical integration would be another, which is a precursor for the Chinese dominance in a particular market, either as a consumer or producer -- on either side. And then there's probably a separate set that should be prioritized that is just strictly based upon military relevance.

So as we think about dual use and commercial input -- and we shouldn't lose sight of things that are the obvious right now -- the innards of a ballistic missiles is -- as Jeff mentioned earlier. And those should be the first.

MR. ARTERBURN: I'll go ahead and offer some specific ones that came to mind, from the framework that risk is a function of vulnerability and consequence. So the first is rare earths where we have a dependence, and China has a significantly greater supply and capacity. The second is agriculture where we have a significant capacity -- and China is particularly vulnerable. And so for outbound investments, might be worth focusing on.

The third is on critical technologies of the future that the Office of the Director of National Intelligence has indicated would be dramatically consequential to U.S. national security if other -- if our adversaries were able to make significant leaps and bounds. So that includes things like quantum computing, artificial intelligence, and others.

The fourth is on semiconductors and batteries, which are both part of China's stated priorities. And you see that in their investment activity domestically. The sixth is on energy, where China has strategically used the state-owned enterprises and private military contractors around the world to ensure that it has stable access to things like fuel, which it is dependent on imports. And the seventh and final is on biotechnology and genomics, where there's obviously significant interest right now with developing vaccines. But where also there's a particular -- there would be a dramatic consequence in the counterintelligence point of view if China and China's companies were able to acquire a lot of that data. So those are the seven I would start with off the top of mind, based on the idea that risk is a function of vulnerability and consequence.

COMMISSIONER SCISSORS: Thank you. I appreciate those answers. And maybe I just, you know, didn't parse them out. But I feel more enlightened now. I will close with a comment. All of you started with what the Chinese are doing. You didn't just necessarily end there. I mean, we could have started with what the U.S. wants to do. And -- and you know -- and give Chinese goals and even status -- make that secondary to our goals and status. And I am not sure that that's the right thing to do. I am not advocating it. But I -- I will say that we are a bigger, richer, we're more technologically advanced, we're younger now. We have a lot of advantages. And they may argue for starting on the American side and pushing it against the Chinese rather than responding to China. I'm not sure, I just thought I'd bring that up. And I am sorry to go a little over time. I will stop there.

COMMISSIONER FIEDLER: That's quite all right. Is Senator Talent back yet?

(No audible response.)

COMMISSIONER FIEDLER: Then we will move to Mr. Wessel. Commissioner Wessel?

COMMISSIONER WESSEL: Thank you all for being here. A lot of questions -- I want to tee off of something that Senator Goodwin, though, raised earlier today and -- and again in this panel which is the Xiaomi case and the question of the -- the injunction. To me, I think it's time to change the burden of proof. Create rebuttable presumptions that with the opacity of the Chinese system as well as their unwillingness to abide by certain norms -- for example, transparency with regard to accounting, et cetera. That I think we are right to take certain actions we believe are in our national security interest, broadly defined, and China can earn its way back. Can earn its way off, if you will. This goes to Entity List. This goes to the DoD companies. It goes to areas like pharmaceuticals where China has refused access to substantial percentages of their drug producing facilities to FDA personnel. We have certain basic interests that our public is interested in us pursuing. Not every definition is correct, and we have to continue to adapt them.

But what do you think that, since China is not a rule of law nation, that we should move first and worry later? Nate, do you want to start with that?

MR. PICARSIC: Sure, Commissioner Wessel. Thank you for the great question. I think the framing is spot-on. If we're able to scope to national security relevant domains, and leverage the Chinese definition of military-civil fusion for doing so, I think we're able to flip this presumption. I don't know what the correct legal or bureaucratic mechanisms to do so would really be. And that perhaps, you know, suggests that there's a need for new or different bureaucratic authorities or interagency capacities on the part of the U.S. Government. But I think we have ample evidence at this point to understand that China is not going to change its orientation toward the rule of law, its compliance when it concerns military-civil fusion and national security relevant capacities with accepted norms and -- and standards globally. So I -- I am entirely sympathetic and agree with the idea in principle and regrettably don't know that I have any real, concrete suggestions for how to implement.

(Simultaneous speaking.)

COMMISSIONER WESSEL: Thank you.

MR. ARTERBURN: If I could?

COMMISSIONER WESSEL: Please.

MR. ARTERBURN: Yes, I would like to offer one concrete recommendation. I think I can agree with the premise that there's a certain level to which we can not necessarily force China to change its ways, or its approach to be transparent, reciprocal -- maybe have integrity in certain business or academic interactions in the way that we understand it in the United States sense. But there are tools that we can use to force their hand in certain ways. And I think the lowest hanging fruit, from my point of view, would be require that Chinese companies that invest in the United States, or register in the United States, also include their Chinese script name in disclosure documents. And the reason I recommend something that basic is such that when an investigator who needs to know, who owns this company? Who is related to this company? Wants to go in Chinese public records that are free to access to understand shareholder investment information, you need to have the Chinese name to do it. And in most cases, the -- the discrepancy between a Chinese company's English and Chinese name can be dramatic to the point where it's impossible really to hunt that company down in English.

And so things like the Treasury Department's Office of Foreign Assets Control publish its list of Chinese companies name in Chinese, and that's dramatically helpful for -- for those of us who do investigations and analysis on a lot of these corporate networks, but as -- based on the -- the previous National Defense Authorization Act where we've begun to establish a national beneficial ownership registry, that is one concrete place where, if we require Chinese companies that are registered in the United States in some way to include the Chinese name of their company as well, it will increase and accelerate the due diligence process in such a dramatic fashion and allow us to start really sort of scaling up our own sort of protective due diligence measures at home.

So that -- that's the most immediate, lowest hanging fruit I can think of to sort of force some transparency in our own domestic, systemic reforms that we might pursue.

COMMISSIONER WESSEL: And I appreciate that, and any other ideas you may have there that we can talk to Congress, or recommend to Congress. But I think we have to do more than baby steps. We need to take some giant strides right now based on the challenges we face. Emily, any thoughts?

MS. WEINSTEIN: I was just going to say, I completely agree with the idea that we need to stop putting the onus on the Chinese government to be transparent. They have proven time and time again that they will say that they are being transparent, or that Chinese companies are being transparent, and then later we find out that they are not. So I think, you know, I love the idea that Jason threw out there and I think, too, my recommendation for providing Chinese language and area studies resources to the SEC would also be very helpful because I know that the Public Company Accounting Oversight Board has struggled over the past, you know, two decades with getting -- you know, trying to work with Chinese accounting firms and Chinese government entities there to get the necessary materials that they need to audit and investigate Chinese companies that are either listed in the U.S. or trying to be listed in the U.S.

The only other thing that I would add too when I think, you know, there's a lot of conversation recently going on about whether or not to delist certain Chinese companies from U.S. stock exchanges. And I think there's really a -- an important calculus that needs to go into these decisions because in some instances, the companies -- or, the information that these companies need to provide in order to be listed on a -- on the U.S. Stock Exchange, that provides a lot of information for -- in the open source for U.S. Government, for other analysts to kind of assess these inter-company workings. And, you know, I struggled over the past few years trying to get access to certain things on the Shenzhen or Shanghai Stock Exchange. It's much more difficult. And I assume now, moving forward -- as easy as it is right now to get things on Hong Kong Stock Exchange, I think it's going to be more difficult as we see things in Hong Kong really shifting.

So, I think in some instances where there are maybe cases where the Chinese Government or Chinese military is very tied into company inner workings, I think there are -- there is an argument to delist them. But I think it's important to keep in mind, again, the lack of -- or the loss of certain open-source details that might be useful looking forward.

COMMISSIONER WESSEL: Thank you.

COMMISSIONER FIEDLER: Thank you. Commissioner Wong?

COMMISSIONER WONG: Thank you, Mr. Chairman. I guess my question isn't really -- some of my comments are directed at Mr. Arterburn and Ms. Weinstein and some of your recommendations regarding having the government become more of a clearinghouse, or a source of analysis and information on Chinese -- the Chinese market at the sectoral level and even at the firm level. And the connections between the ostensibly private firms with the national security policies of China.

So one -- one observation, which I just find interesting, is you know, generally people will say that the relative difficulty of the Mandarin language and Chinese written language is a hurdle to China in its ability to expand or to attract investment, to conduct trade, to acquire talent from abroad, and to expand its soft power. But it also, on the other side, as I am hearing from you -- it has the effect of insulating their strategy -- insulating their country from strategic analysis, from basic business due diligence. So it's interesting. At the same time, it's a hurdle, it's also perhaps a shield from some of the analysis that we'd like to conduct on -- on their market. That's just observation.

Second, I agree with you, Mr. Arterburn that the -- the open-source opportunities here are great. You know, as a general matter, the -- the delta between open-source analysis and sources versus those that are classified is relatively small in my experience. I've maybe -- difference between what you're actually talking about, you're analyzing about as a general matter, I think that the delta is pretty small. And here the actual data that's available, as you're saying, is quite voluminous. Because the simple fact that China's strategy to -- to boost its capital markets, that military-civil fusion, it has to be in large part public for them to martial their entire population, and their entire business community to their ends. So it's available. So I agree with you on that. That's a second observation.

And the third is kind of just I want to clarify, or maybe put this in terms that I would understand and see if -- if you, Mr. Arterburn, you, Ms. Weinstein, agree. You both are proposing that the United States Government do something somewhat unprecedented, which is to enter into sectoral- and firm-level analysis for investment quality -- and perhaps even some things that rating agencies do -- something that has largely been private sector and proprietary type research, having a government role in that. But you are proposing this because we are facing a situation where there is an unprecedented government and national security valance to the market in China. So we have to somewhat mirror that in -- in -- in our efforts. Am I saying -- am I phrasing that correctly?

MR. ARTERBURN: I think so.

MS. WEINSTEIN: I was just going to say, I think yes to how you're phrasing it. I would just also point out too that I think there's a capacity for this to maybe be directed or led by -- or, I would say directed by the U.S. Government, but not necessarily undertaken as a wholly government effort. I think this is something that could be outsourced to -- you know, think tanks in the U.S. There are plenty in Washington D.C. that can do amazing work on this. I think even working at some type of public-private partnership -- or even something like an FFRDC or a UARC that gets -- you know, gets certain types of mandates from the U.S. Government as far as its research capacity and what it is investigating. But that way it's taking the onus, again, off of the U.S. Government to entirely undertake such -- as you've mentioned, such a large issue.

COMMISSIONER WONG: Right.

MR. ARTERBURN: You know, I think the -- the point I would like to add is that, whether we like it or not, as you've said there's an unprecedented threat and it can't be just the government -- the federal government -- to take it all on. We need the state-level governments as well to understand what the treat looks like, how those network threats actually might sort of come and appear. And I am from Alabama, in Huntsville, where there's a significant amount of our missile defense research. And we need the resources to be able to take action against those threats in a timely fashion -- in a way that is maybe not -- is unencumbered by, sort of restrictions on information sharing. And I do agree. I think there is a degree of it which is unprecedented in terms of who we might need to engage as collaborators or -- or stakeholders who have a role to play in mitigating and responding to risk because, as you said, it is unprecedented in the scale that it takes and also in the form that it takes.

Another key challenge here that we have to be able to address is the fact that not everything is illegal. And approaching all of these -- these threats from the perspective of criminality I think will also potentially lead to certain overreach in ways that are going to be counterproductive in the long run. And so we also do have to think of new policy tools and levers that we can use to sort of frame and understand and respond to some of these threats which may not require an enforcement mechanism, necessarily, but might be something more benign or local or targeted.

COMMISSIONER WONG: Right, yeah I agree with you that, you know, not everything can be listed on the Entity List or on the SDN list, right? There has to be some sort of different medium by which we can raise, you know, pretty vexing issues that are presented by the Chinese hybrid model of fusing its -- its national security interest with -- with the commercial interests, whether that's through advisories or bulletins and investors can take it as they may to make their investment decisions. But you know, obviously when you have the U.S. Government backing -- whether it's through public-private partnerships, or through an actual government statement, it will carry certain weight, right? It will have to be factored into investment decisions by -- particularly by publicly traded companies.

My -- my next question -- I know I'm over time here, but there's been a lot of discussion here in this panel and from prior ones, on the need for international coordination. Usually that relates to restrictions, that if we don't place restrictions in a coordinated manner, simply we're -- we're permitting other -- other -- investors or non-U.S. investors then to fill the space. Here however, this information -- information is a public good. You put out information. It has the authority of the U.S. Government that will not be ignored by investors worldwide in my -- my view. But we could also, I am assuming -- and perhaps you should jump in here Mr. Arterburn or Ms. Weinstein -- we can pull information from other countries as well. They perhaps know even more about the China market than we do. I imagine sophisticated investors from Japan or from Korea or from the region, actually have better insights into this.

MR. ARTERBURN: Yes, I would totally agree there. I think part of my recommendation about a U.S. national data strategy -- I think my goal is that that would be in coordination with a lot of our allies who have both -- you know, similar vulnerabilities and also unique capabilities that can enhance ours. And if we sort of distribute the effort for a problem that is of significant scale, and that is growing in sort of its scope, I think we're going to be in a better position to respond to it. But I think another point he -- another important point here, too, is that these threats don't necessarily manifest bilaterally. And one example I would say is from a DOJ indictment from about two years ago on Beijing Highlander technology where Chinese companies procured U.S. sensitive goods from a Houston company via front companies in Canada.

So working with our -- or, through our allied countries where, theoretically if we had the right information sharing mechanisms we might be in a better position to respond to things that might be sort of compromising our interest across -- across those borders. So I totally agree with the premise. I think part of this needs to be in coordination with our allies, not only because we can distribute the resources required, but also because our allies have unique capabilities that can improve and enrich our own understanding of a threat that -- in which we all have very similar equity and interest in sort of buttressing our systems.

COMMISSIONER FIEDLER: Thank you.

(Simultaneous speaking.)

MS. WEINSTEIN: And I would --

COMMISSIONER FIEDLER: Go on.

MS. WEINSTEIN: Apologies.

COMMISSIONER FIEDLER: Please.

MS. WEINSTEIN: Just one more point, too. I'm sorry to keep going on this. But I would just point out too, beyond restrictions and information sharing, there was a great report that came out from the Center for the American Security -- I would say within the past year or so -- about building a -- like an alliance innovation base, so it's not only our -- so it's not only focusing on, you know, placing restrictions in international technology -- or kind of sharing information, but also working to improve our own technological capabilities and ability to compete not unilaterally, but multi-laterally. And I think, as we move forward, that will be super important as far as competing with China.

COMMISSIONER FIEDLER: Thank you. Chairman Bartholomew, you have a second-round question?

CHAIRMAN BARTHOLOMEW: No, none here, thank you.

COMMISSIONER FIEDLER: Bob, does anybody in the main room have a second-round question?

COMMISSIONER BOROCHOFF: Yes, Commissioner Kamphausen does. Sorry, he was waving and saying no. So the answer is no.

COMMISSIONER FIEDLER: Anyone else? Is Commissioner Talent back yet? I just want to make sure everyone has an opportunity.

COMMISSIONER WESSEL: Can I just quickly, Jeff -- and thank you all. Last year the China Commission suggested as one of its recommendations a new center on economic data. Would welcome -- and I know, some of it is in your testimonies -- where you think the government is doing a good job on collecting data, where it's doing a poor job. I did appreciate the information regarding Chinese language -- names, regarding SEC disclosures. I think we have a real opportunity this year with the new administration and what Congress appears to be ready to do, and we should take advantage of it. And where it relates to data and other issues that support policy, do our best to get that -- those supported in law as soon as possible.

VICE CHAIRMAN CLEVELAND: I have a follow-up.

COMMISSIONER FIEDLER: Okay, Robin Cleveland.

VICE CHAIRMAN CLEVELAND: Just quickly -- Ms. Weinstein you mentioned that a good place to start would be to look at our fourteen -- the fourteen-year plans as framing what their priorities are. Doesn't that put us in a position of always catching up? Since -- and I guess I'm sort of struggling with -- there is some consistency, obviously, but could you clarify how you would prioritize what's in the various five-year plans?

MS. WEINSTEIN: Absolutely. Both very good questions. To the first question I would say, as far as kind of how the U.S. Government is working on a data strategy, I think when discussing or dealing with issues associated with China, I think part of that -- that data strategy should include some type of data maintenance recommendations. As many people know, when dealing with Chinese -- Chinese open source information, a lot of it tends to disappear, particularly if it gets a lot of hits in Washington D.C. or from specific, you know, spots around here or -- you know, elsewhere. And especially if it's on key terms. You know, we've seen things like Made in China 2025, Thousand Talents and other kind of terms disappear from the Chinese internet.

So I know many of my colleagues in the kind of think tank and private sector world have spent a lot of time digging into how to use VPNs, how to archive sources, how to save documents -- or save webpages, or archive them in a specific time period. So I think as part of that strategy, I think we need to make sure that all we ask -- all the parts of U.S. documents that are collecting data are well equipped to save that data and ensure that we have access to that data moving forward, even if the Chinese government takes it down.

To the second question about kind of a sector-based approach. I would say -- I agree with the fact that, again, if we only focus on what China is doing, I think that puts us in a position -- like you said, Commissioner Cleveland, to always kind of be catching up. And I think, what I would probably recommend is a strategy that kind of attempts to do both. So it's a strategy that on one hand we are paying attention to what China is doing and putting in place protective measures to ensure that those sectors specifically are safe from, for example, technology transfer, or any types of nefarious collaboration attempts, or things like that.

But I think it also puts us in a position to look at these sectors and say, okay, you know, if China wants to do A, B, and C, let's think about that. But I think, you know, we don't necessarily want to copy what they're saying word for word. We don't want to do exactly what China is doing. The U.S. has its own strengths. So I think there's a place. And I think one of my co-panelists, or both of them mentioned this earlier, that there's really a place to kind of, you know, look in domestically and see where are our strengths? What do we want to improve?

Almost like -- you know, I don't want to propose that the U.S. make its own version of, you know, Made in the U.S.A. 2025 or 2030, but I think there is a kind of place to do some type of internal assessment to say, these are the areas in which we want to improve. And let -- then we can really kind of double down on ensuring that all players, U.S. Government, academia, and industry are on the same page.

VICE CHAIRMAN CLEVELAND: Thank you. Jeff, I think Mr. Arterburn wanted to add a comment?

COMMISSIONER FIEDLER: And I think Mr. Talent is back, Senator Talent is back.

MR. ARTERBURN: Yes, I just wanted to -- one quick comment that I think we have to also remember that, you know, China is a very fragmented state. We're dealing with I think what one academic -- the phrase that I love that he's used is regionally decentralized authoritarianism, where a lot of different local governments are competing against each other with how they move.

And so these national-level policy documents are also important from an internal state alignment perspective. And I think you see in the wake of a lot of these national-level policy announcements that industry really swings to follow those documents. And so not only would we be playing catch up, but the rest of Chinese companies are also playing catch up with the release of a lot of those policies. And so I think an example I include in my written testimonies in the semiconductor industry where after an announcement about these critical technologies, and in about 2018 we see, I think, several-hundred-percent increase in the amount of capital that was being directed towards that.

So that's all to say that I think to some extent there might be a little bit of catch up. And we can use things like investment data, or business registration information to maybe more proactively identify where certain industries might be headed. But I also think it's -- it's not necessarily that significant because of the role that those policy documents play in aligning domestic state actors. That they're also lagging behind, necessarily, the national level. So, just a thought there.

VICE CHAIRMAN CLEVELAND: Thank you.

COMMISSIONER FIEDLER: Senator Talent, you have anything to --

COMMISSIONER TALENT: Jeff, we're near the end and I've been gone for 45 minutes. I'm going to pass.

COMMISSIONER FIEDLER: Okay. We have four minutes -- I was just -- in the context of following Chinese state documents, or whatever -- I think clearly the Department of Defense is going to be making its decisions based upon what it knows about Chinese military modernization and which companies may be furthering that. And that is likely to be unstated in Chinese government public documents. And that is a primary consideration that motivates these restrictions, I believe, in the first place. With that, I have no more comments and we can close this panel and take a now 13-minute break and start Panel IV, overseen by chair -- Co-Chair Borochoff.

(Whereupon, the above-entitled matter went off the record at 3:28 p.m. and resumed at 3:40 p.m.)

PANEL IV INTRODUCTION BY COMMISSIONER BOB BOROCHOFF

COMMISSIONER BOROCHOFF: Welcome, everybody, back to our fourth panel, which will evaluate U.S. legal authority and current restrictions on outbound investment in China's capital markets.

First, we'll hear from Ms. Nazak Nikakhtar, co-Chair of the National Security Practice at Wiley and former Assistant Secretary for Industry and Analysis at the U.S. Department of Commerce's International Trade Administration.

Next, we'll hear from Ms. Perth Tolle, founder of Life + Liberty Indexes. Finally, we'll hear from Dr. Ryan LaFond, Deputy Chief Investment Officer with Algert Global.

Thank you all very much for your testimony. The Commission is looking forward to your remarks. I'm going to ask all our witnesses to please keep their remarks to seven minutes.

Ms. Nikakhtar, we'll start with you.

OPENING STATEMENT OF NAZAK NIKAKHTAR, PARTNER, INTERNATIONAL TRADE AND NATIONAL SECURITY PRACTICE, WILEY REIN LLP; FORMER ASSISTANT SECRETARY FOR INDUSTRY AND ANALYSIS, U.S. DEPARTMENT OF COMMERCE, INTERNATIONAL TRADE ADMINISTRATION

MS. NIKAKHTAR: Thank you.

Chairman Bartholomew, Vice Chairman Dr. Cleveland, hearing co-Chairs Commissioner Borochoff and Commissioner Fiedler, and all the Commissioners and staff, thank you for the opportunity to speak today. My name, again, is Nazak Nikakhtar, and I'm the International Trade and National Security Attorney at the Washington, D.C. law firm of Wiley. And so the views and opinions expressed today, I need to say, are mine and do not represent the views of Wiley or any of the firm's clients.

By way of background, I'm also a trade and industry economist, former Georgetown University adjunct law professor, and I currently completed my second tour of duty in the U.S. Government. I've been on the front lines of the U.S.-China economic challenge for decades, and I'm offering perspectives from the Government -- from the perspective of my time in Government and then private sector.

Panelists discussed earlier today how the PRC is rapidly completing its goal of realizing military and economic hegemony. The Defense Department concluded last year that China has already achieved parity with or even exceeded the United States in several military modernization areas. Well how has this come to be?

To be frank, the United States' reluctance to adequately control the flow of technology to China, our collective decision to off-shore manufacturing in strategic sectors to avail ourselves of China's distorted nonmarket economy, and our decision to pour capital into the PRC has been, for decades, tilting the competitive advantage in favor of China and against the United States and our allies.

And the Chinese Communist Party has taken advantage of this. Through its military-civil fusion strategy, rampant IP theft, coercive tech transfer requirements, and a myriad of laws that compel the transfer of sensitive information to the Government, the PRC has built its economy and military strength to a scale that it can now rival ours.

And China has indeed weaponized capital. U.S. public and private equity investments in Chinese and Hong Kong domiciled companies totaled by our estimates at Commerce $2.3 trillion in market value of holdings at the end of 2020. U.S. investments in state-owned enterprises totaled over $152 billion. And investments in military companies totaled nearly $55 billion.

Further, the U.S. imported approximately $451 billion in goods and services from China in 2020. The aggregate value of these imports represents U.S. capital flows into China as well. These facts refute the notion that prohibiting capital flows to China makes no difference. Limiting capital will absolutely slow the growth of the Chinese military-industrial complex, and our initiatives may even prompt some of our allies to do the same.

Juxtaposing the enormous size of capital transfers to China against the Department of Defense's warnings about the growth of the Chinese military, the gap in the United States' approach to national security becomes inescapable. Well, how did we get here?

As a starting point, we need to acknowledge the reality that our business dealings with China have fueled the country's military-industrial complex for the last 40 years. Even business dealings where we service Chinese industries' demand in low technology commodity sectors haven't been benign, but rather have created opportunities for the Chinese economy to shift resources away from low-tech enterprises to higher-tech sectors to accelerate its indigenization. Many of us have witnessed firsthand these dynamics and ensuing hollowing-out of industries around the world. Maintaining the status quo cannot be our strategy going forward.

After Executive Order 13959 was issued in November prohibiting U.S. equity investments in the Chinese Communist Military Companies, the CCMCs, the 2021 National Defense Authorization Act expanded the definition of CCMCs to include entities that aid the Chinese defense industrial base through the CCP's military-civil fusion strategy.

Other than equity investments, I should say CCMC designations also prohibit U.S. Government procurement from contractors with CCMCs and their supply chains. CCMC designations are a start, but we need to do more. I provided a number of recommendations in my written testimony and will highlight some of them here.

First, last Friday, as earlier was mentioned, the D.C. District Court ruled that when making CCMC designations, the Defense Department is bound by the Administrative Procedure Act to produce substantial evidence demonstrating that the entity in question is linked with the Chinese military. Here, the notion of substantial record-building makes little sense. It prolongs and potentially frustrates rather than facilitates many CCMC designations.

When national security is at stake, will the Government always have access to substantial evidence to fulfill the mandate of the APA? How much record evidence should be required? And what are the limitations if actual evidence isn't readily available? When countering national security threats, shouldn't the law facilitate rather than impede our security objectives?

Here, Congress should amend the NDAA by instituting a reasonable cause to believe standard for CCMC designations, i.e., that there's a reasonable cause to believe that the entity in question is working with or poses a significant risk of working with the Chinese military-industrial complex. This would be a far more flexible standard and reduces the record-building burden on the U.S. Government. We need to be nimble when responding to national security threats.

Next, we know that there are extensive and far-reaching laws in China that meld the commercial and military sectors into the same intertwined state-coordinated apparatus. In light of these CCP laws, it would be reasonable to apply a de jure approach rather than a de facto approach for designating CCMCs.

Under a de jure framework, the U.S. Government would examine the extent to which CCP laws and policies can be used to compel specific entities to work with the Chinese military in ways that threaten U.S. national security or foreign policy interests. If those laws have the reach, then the entities subject to those laws would be designated as CCMCs.

This de jure framework has precedent in international law, so it is legally viable. This approach is also straightforward, facilitates the Defense Department's process for CCMC designations also, so should be adopted.

The third item addresses U.S. transfers of technology, just as dangerous as capital to high-threat actors. The U.S. Government needs to make substantial progress in its identification of emerging technologies under the Export Control Reform Act. This would then get incorporated into the definition of critical technologies under the Foreign Investment Risk Review Modernization Act.

Without good definitions here, the U.S. Government does not have the legal authority to adequately review exports of emerging technologies or inward FDI in critical sectors for national security risks. For over two years, the full exercise of these authorities has languished because emerging technologies have not been fully defined. This too needs to be remedied.

Fourth and lastly for my oral testimony, China's military-civil fusion strategy is real, and the U.S. Government needs to develop a comprehensive and consistent legal standard for evaluating the extent to which foreign entities are affiliated with their provincial or central governments.

The lack of a framework has, to date, significantly impeded the U.S. Government's ability to respond to national security threats in a number of areas, including export controls, investment screenings, intelligence community risk assessments, federal government acquisitions, and Department of Defense operations. But the solution is simple.

Congress should, by legislation, apply to all federal agencies the longstanding legal definition of affiliation that exists in U.S. trade laws. The laws define affiliation beyond ownership interests to the broad range of ways that foreign governments are able to exercise influence over corporate entities' business operations, such that these entities lose autonomy over key decisions.

Think subsidies. Think how intelligence sharing works. Think about even how financial coercion by foreign governments can induce companies to act certain ways. The affiliation laws I propose have been upheld by the courts for decades, are consistent with the United States' obligations under the World Trade Organization agreements, and will therefore withstand judicial scrutiny.

The goal here by giving all agencies a strong and consistent definition is to augment agencies' ability to increase their own legal authorities to protect U.S. national security, for example, to limit procurement from corporate entities that act as affiliates of a foreign adversarial government, or to enable the Defense Department to act offensively against the commercial arms of a nefarious central government.

The ultimate point here is that we need to modernize our laws because the CCP has erased the line between China's commercial and military sectors. We must see that for what it is.

I thank you, and I look forward to your questions.

PREPARED STATEMENT OF NAZAK NIKAKHTAR, PARTNER, INTERNATIONAL TRADE AND NATIONAL SECURITY PRACTICE, WILEY REIN LLP; FORMER ASSISTANT SECRETARY FOR INDUSTRY AND ANALYSIS, U.S. DEPARTMENT OF COMMERCE, INTERNATIONAL TRADE ADMINISTRATION

March 19, 2021

STATEMENT OF HON. NAZAK NIKAKHTAR

Partner, International Trade and National Security Practice, Wiley Rein LLP;

Former Assistant Secretary for Industry & Analysis and Under Secretary for Industry & Security,
U.S. Department of Commerce

Testimony Before the United States-China Economic and Security Review Commission*

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

Chairman Bartholomew and Vice-Chairman Dr. Cleveland, hearing Co-Chairs Commissioner Borochoff and Commissioner Fiedler, and all Commissioners, thank you for the opportunity to speak about the extent to which the People's Republic of China's (PRC or China) access to U.S. and global capital poses risks to U.S. economic, foreign policy, and national security interests.

My name is Nazak Nikakhtar, and it is an honor to appear before you today. I am an international trade and national security attorney at the Washington, DC, law firm of Wiley Rein LLP. I am also a trade and industry economist, a former Georgetown University adjunct law professor, and I recently completed my second tour of duty in the U.S. Government. Twenty years ago, I began my career as an analyst at the U.S. Department of Commerce's Bureau of Industry and Security and subsequently at the International Trade Administration, where my colleagues and I witnessed from the frontlines the predatory economic tactics used by our trading partners to hollow-out our industries. In 2004, I helped institute Commerce's China/Non-Market Economy Office and, for several years thereafter, I audited numerous foreign (including Chinese) companies and their affiliates for the Department. In 2018, I returned to the Commerce Department to serve as Assistant Secretary for Industry & Analysis and, in 2019, I simultaneously served, performing the non-exclusive functions and duties, as the Under Secretary for the Bureau of Industry and Security. It is from all of these vantage points that I offer my testimony and observations today.

U.S. policymakers and leaders around the world have increasingly described the PRC's military buildup as a threat to the national security, economic security, and foreign policy interests of the United States and its allies. Today, the PRC is the world's second largest economy, and

**The views and opinions expressed in this testimony are mine only and do not represent the views of Wiley Rein LLP or any of the firm's clients.*

some analysts project that the Chinese economy will surpass that of the United States by 2028.[1] The key reason we are discussing the PRC's military industrial complex today is because the strength of the PRC's military is directly linked to the country's economic growth, and this has alarming implications for the Chinese Communist Party's (CCP) geopolitical power and ability to carry out its global intentions. Hong Kong provides us with a small glimpse into what may happen. It is time to take these challenges seriously and take decisive and proactive measures to protect our national security.

I. THE CCP, PEOPLE'S LIBERATION ARMY (PLA), AND THE CHINESE COMMUNIST MILITARY COMPANIES (CCMC): QUEST FOR GLOBAL SUPREMACY

A. The Growth of the PLA

The PLA is the military arm of the PRC's ruling Communist Party. It is well documented that, since 1978, the CCP has been engaging in a sustained and aggressive effort to transform the PLA from a low-technology and infantry-heavy apparatus to a high-technology force that is able to rival any other military in the world. In 1999, Congress recognized the growing threat that the PLA posed and, in response, through the National Defense Authorization Act (NDAA), directed the Department of Defense (DOD) to begin identifying CCMCs and simultaneously authorized the President to exercise authorities under the International Emergency Economic Powers Act (IEEPA) to counter any resulting national security threat.[2]

Yet, for 20 years thereafter, notwithstanding the steady accumulation of power and resources, superior technological progress, and operational sophistication of the Chinese military,

[1] BBC, *Chinese Economy to Overtake US by 2028 due to Covid* (Dec. 26, 2020), https://www.bbc.com/news/world-asia-china-55454146.

[2] Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, Pub. L. No. 105-261, § 1237, 112 Stat. 1920 (1998) ("1999 NDAA"), https://www.govinfo.gov/content/pkg/PLAW-105publ261/pdf/PLAW-105publ261.pdf. The NDAA authorizes the Secretary of Defense to determine CCMCs in consultation with the Attorney General, the Director of Central Intelligence, and the Director of the Federal Bureau of Investigations. The CCMC provision of the 1999 NDAA was updated in 2021 by the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, H.R. 6395, 116th Cong. (2021), § 1260(H), https://www.congress.gov/bill/116th-congress/house-bill/6395/text ("2021 NDAA"). The 2021 NDAA includes requirements for annual reports on the U.S. operations of companies linked to the PLA (§ 1260H) and a report on China's military capabilities and activities in the Arctic (§ 8424).

the U.S. Government did not produce the CCMC list.[3] It was not until June 2020 that the DOD issued its "initial" list of CCMCs and committed to "continue to update the list with additional entities as appropriate."[4] The initial tranche identified 20 CCMCs operating directly or indirectly in the United States. Between June 2020 and January 2021, the list more than doubled to 44 companies.[5] More work needs to be done.

The 2021 NDAA amends the 1999 NDAA and defines CCMCs as entities "owned, controlled, or beneficially owned by, or . . . acting as an agent of or on behalf of" the PLA or an organization subordinate to the CCP's Central Military Commission, *or* entities that are identified as "military-civil fusion contributor[s] to the Chinese industrial base," who are also "engaged in providing commercial services, manufacturing, producing, or exporting."[6] "Military-civil fusion contributor[s]" are those entities that contribute in very specific ways to the "Chinese defense industrial base."[7] As set forth below, this definition should be amended in order to facilitate the designations of additional PRC companies that aid the PLA and the PRC's military industrial complex.

The PLA is two million strong, and the U.S. Government has now recognized that the growth and magnitude of the PRC's economic and military capabilities are "the primary concern in U.S. national security."[8] The DOD's 2018 National Defense Strategy observes that a central part of the CCP's global strategic ambitions is to weaken the economies of its competitors.[9] More recently, in its 2020 report to Congress on Military and Security Developments Involving the

3 Press Release, Department of Defense Newsroom, DOD Releases List of Additional Companies, In Accordance with Section 1237 of FY99 NDAA (Jan. 14, 2021).

4 *Id.*

5 On March 12, 2021, the DC District Court preliminary enjoined the DOD's designation of Xiaomi Corporation as a CCMC due to insufficient evidence under the Administrative Procedure Act.

6 2021 NDAA Sec. 1260(H)(d).

7 *Id.*

8 Jim Mattis, *Summary of the 2018 National Defense Strategy of the United States*, U.S. Department of Defense (2018) at 1, https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.

9 *Id*. at 1-3.

People's Republic of China, the DOD underscores that the PRC is rapidly moving to complete its goal of realizing military and economic hegemony.[10]

It is well established that the PLA's strength has been fueled by the CCP's coercive and market-distortive behaviors that drive the country's own technological and economic advancements and, by design, destroy the competitive positions of non-Chinese actors. As the DOD acknowledges, such tactics include, in addition to rampant intellectual property (IP) theft, "commercial joint venture requirements, technology transfer requirements, subsidies to lower the cost of inputs, sustaining excess capacity in multiple industries, sector-specific limits on foreign direct investment, discriminatory cybersecurity and data transfer rules, insufficient intellectual property rights enforcement, inadequate transparency, and lack of market access." [11] These predatory practices, compounded by the enormous amount of funds that steadily pour into the PRC economy through foreign capital, tilts the playing field *in favor* of China and *against* the United States and its allies. Indeed, the culmination of these factors compelled the DOD to conclude last year that "China has already achieved parity with – or even exceeded – the United States in several military modernization areas."[12] The DOD and the Congressional Research Service summarized a number of these areas as follows:[13]

- **PLA Navy:** "An approximately 350-ship navy that includes advanced platforms such as submarines, aircraft carriers, and large multi-mission surface vessels, giving China blue-water capabilities and the ability to conduct sustained operations and project power increasingly far from China's periphery."[14] "In comparison, the U.S. Navy's battle force is approximately 293 ships as of early 2020. China is the top ship-producing nation in the world by tonnage and is increasing its shipbuilding capacity and capability for all naval classes."[15]

[10] U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2020* ("DOD 2020 Report to Congress"), https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF.

[11] *Id.* at 12-13.

[12] *Id*. at vii.

[13] Caitlin Campbell, *China Primer: The People's Liberation Army (PLA)* (Jan 5, 2021), Congressional Research Service ("CRS PLA Report") at 1-2.

[14] *Id.* at 1.

[15] DOD 2020 Report to Congress at vii.

- **PLA Air Force:** The PRC's air force together with the navy's aviation "constitute the largest aviation forces in the [Indo-Pacific] region and the third largest in the world, with over 25,000 total aircraft and approximately 2,000 combat aircraft. The [PLA Air Force] is rapidly catching up to Western air forces across a broad range of capabilities and competencies."[16] The PLA's air force is "increasingly capable of conducting joint and over-water missions, featuring deployments of large numbers of fourth-generation fighters, and fifth-generation fighters becoming operational or in late stages of development."[17]

- **PLA Rocket Force:** "The PRC has one of the world's largest forces of advanced long-range surface-to-air systems – including Russian-built S-400s, S-300s, and domestically produced systems – that constitute part of its robust and redundant integrated air defense system (IADS) architecture."[18] "A conventional missile force designed to enable China to deter or defeat possible third-party intervention in a regional military conflict, and featuring around 100 intercontinental ballistic missiles and hundreds of theater-range conventional missiles, including anti-ship ballistic missiles designed to target adversary aircraft carriers; and a nuclear force intended to be small but survivable (DOD estimates China's nuclear stockpile is in the 'low-200s' and likely to at least double in the coming decade), with progress toward a 'nuclear triad' (including land-, submarine-, and aircraft-launched nuclear weapons)."[19] "The PRC has developed its conventional missile forces unrestrained by any international agreements. The PRC has more than 1,250 ground-launched ballistic missiles (GLBMs) and ground-launched cruise missiles (GLCMs) with ranges between 500 and 5,500 kilometers. The United States currently fields one type of conventional GLBM with a range of 70 to 300 kilometers and no GLCMs."[20]

- **PLA Strategic Support Force:** "A force that centralizes cyber and space capabilities (referred to by the PRC as the 'new commanding heights in strategic competition') as well as electronic and psychological warfare."[21]

- **PLA Joint Logistics Support Force:** "A force that facilitates joint logistics across the PLA to enable large-scale military operations."[22]

16 *Id.* at viii.

17 CRS PLA Report at 1.

18 DOD 2020 Report to Congress at vii.

19 CRS PLA Report at 2.

20 DOD 2020 Report to Congress at vii.

21 CRS PLA Report at 2.

22 *Id.*

The DOD warns, moreover, that the PLA's capabilities are expected to increase as the PRC ramps up its "intensive campaign to obtain foreign technology" through "illicit means" and other strategies including "imports, foreign direct investment, talent recruitment, and R&D and academic collaborations."[23] The CCP's ultimate objective is to "roll back American power" and become the preeminent economic and military superpower globally.[24] As summarized by Kevin Rudd, the former prime minister of Australia, the PRC is well-positioned to achieve this goal:

> [I]n both reality and in perception, China has already become a more important economic partner than the United States to practically every country in wider East Asia. We all know where the wider strategic logic takes us. From economic power proceeds political power, from political power proceeds foreign-policy power, and from foreign-policy power proceeds strategic power. That is China's strategy.[25]

B. CCP's Aggressive Growth Strategy

It has been widely reported that the CCP mandates and coerces – through law, administrative guidelines, and regulations – commercial and non-commercial entities to transfer sensitive information, trade secrets, and intelligence information to the central government. In addition, PRC laws require that entities conform their practices to advance the CCP's military and economic interests.[26] In fact, the CCP's Military-Civil Fusion strategy demands that entities cooperate with the government to advance the military strength and power ambitions of the PLA. All PRC entities, even those enterprises that still remain ostensibly private and civilian, are legally obligated to serve the state and the CCP such that PRC entities have limited autonomy over their business decisions. The PRC's routine installation of CCP officials inside private firms ensures compliance with the central government's mandates.[27] The reality today is that PRC entities

[23] DOD 2020 Report to Congress at 149.

[24] Ben Sasse, *The Responsibility to Counter China's Ambition Falls to US*, The Atlantic (Jan. 26, 2020), https://www.theatlantic.com/ideas/archive/2020/01/china-sasse/605074/.

[25] Kevin Rudd, *Understanding China's Rise under Xi Jinping*, Sinocism (Mar. 17, 2018), https://sinocism.com/p/understanding-chinas-rise-under-xi-jinping-by-the-honourable-kevin-rudd.

[26] U.S. China Business Council, *Fact Sheet: Communist Party Groups in Foreign Companies in China*, China Business Review (May 31, 2018), https://www.chinabusinessreview.com/fact-sheet-communist-party-groups-in-foreign-companies-in-china/.

[27] Lingling Wei, *China's Xi Ramps Up Control Over Private Sector*, Wall Street Journal (Dec. 10, 2020), https://www.wsj.com/articles/china-xi-clampdown-private-sector-communist-party-11607612531.

operate in a military-driven ecosystem that is centrally coordinated by the CCP to advance the state's economic growth, weapons capabilities, intelligence operations, and security apparatuses.

Moreover, the CCP's One Belt, One Road initiative encourages the expansion of the PLA's geopolitical reach globally. Under this initiative, the CCP is acquiring stakes in strategic industries and supporting infrastructure in many countries, such as key transportation ports in Greece, railways in Ethiopia, mines in Africa, and massive steel plants in Indonesia and India. These investments augment the CCP's military presence and economic control abroad and, as noted in the United States' 2017 National Security Strategy, these investments can serve as "persuasion" for nations to follow the CCP's directions. [28] The extent of such overseas investments also evidences the CCP's *modern colonization* of strategic regions.

The CCP views data as another strategic domain of military and economic competition that must be controlled and leveraged to advance the country's power ambitions. The Department of Homeland Security observes that the CCP's coercive and illicit acquisition of sensitive data from foreign sources, including intellectual property of foreign governments/private enterprises and personally identifiable information of individuals worldwide, is a central driving force in the PRC's bid to solidify its position as a leading global military and technological superpower by 2049.[29] The objective of the CCP's data accumulation strategy is to hasten the demise of foreign competitors and to fast-track the PRC's technological dominance in key strategic sectors such as aerospace, artificial intelligence (AI) systems, cyber intelligence, biometrics, genomics, semiconductors, pharmaceutical medicines, and energy.[30] In furtherance of these goals, the CCP has instituted a number of laws mandating that Chinese and foreign companies transfer sensitive IP, proprietary commercial secrets, and personal data to the central government and the PLA, including:

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[28] President Donald J. Trump, *National Security Strategy of the United States*, The White House (2017) at 46, https://trumpwhitehouse.archives.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf.

[29] U.S. Department of Homeland Security, *Data Security Business Advisory: Risk and Considerations for Businesses Using Data Services and Equipment from Firms Linked to the People's Republic of China* (Dec. 22, 2020) ("DHS Advisory") at 3, https://www.dhs.gov/sites/default/files/publications/20_1222_data-security-business-advisory.pdf.

[30] *Id.* at 4.

- **National Security/Intelligence Laws:** mandates the transfer of data, information, and technology to PRC authorities.[31]

- **Cybersecurity Law:** mandates that network operators cooperate with public security organs. [32]

- **Cryptography Law:** any system with a CCP "approved" encryption must provide its encryption keys to the government. [33]

- **Data Security Law (implementation pending):** empowers CCP authorities to demand data from companies and requires companies to "favor economic and social development in line with the CCP's social morality and ethics." [34]

- **Export Control Law:** prohibits exports of "important data," essentially any information (including R&D developed by foreign-owned companies) outside of China.[35]

These laws appear to apply to all companies operating in China, regardless of nationality and, in some instances, they also appear to have extraterritorial application, reaching to corporate operations abroad.

Finally, in order to compel businesses to adhere to these and other similar legal mandates, the CCP instituted last year a nationwide social credit rating system for all corporations to detect misconduct and non-compliance. [36] The "Corporate Social Credit System" has implications for companies operating in China – whether foreign-owned or domestic – with respect to proprietary technical information, sensitive personal data, and surveillance information. Companies may be given low scores if they fail to transfer their internal data to the CCP as part of their obligations. Failing to score well, by non-compliance with the government's policies or demands, may subject companies to a myriad of sanctions, including higher taxes or permit difficulties, or a blacklisting

[31] *Id.* 6-7.

[32] Lauren Maranto, *Who Benefits from China's Cybersecurity Laws?*, Center for Strategic & International Studies (June 25, 2020), https://www.csis.org/blogs/new-perspectives-asia/who-benefits-chinas-cybersecurity-laws.

[33] DHS Advisory at 8-9.

[34] *Id.* at 7-8.

[35] *Id.* at 8; Ck Tan, *China's Export Control Law to Become 'Key Dynamic' in U.S. Relations*, Nikkei Asia (Dec. 1, 2020), https://asia.nikkei.com/Economy/China-s-export-control-law-to-become-key-dynamic-in-US-relations.

[36] *See, e.g.*, Michael D. Sutherland, *China's Corporate Social Credit System*, Congressional Research Service (Jan. 17, 2020), https://crsreports.congress.gov/product/pdf/IF/IF11342; Kendra Schaefer, *China's Corporate Social Credit System: Context, Competition, Technology and Geopolitics*, Trivium China (Nov. 16, 2020), https://www.uscc.gov/sites/default/files/2020-12/Chinas_Corporate_Social_Credit_System.pdf.

which could mean financial ruin.[37] The European Chamber of Commerce describes this credit rating system as potentially amounting to "life or death" for companies operating in China.[38]

Today, the legal and policy levers that the CCP utilizes to force entities to contribute to the advancement of the PRC's military industrial complex continue to expand. Indeed, the PRC government is now better-suited than ever to efficiently harness the power of data and technology, as well as the country's own massive economy, population, manufacturing base, and R&D capabilities, to accelerate its military in size and performance capabilities in order to overpower any non-Chinese nation.

II. U.S. CAPITAL FLOWS INTO THE PRC AND PLA

The CCP's laws and policies are not the only drivers of growth for the PLA and the PRC's military industrial complex. The transfer of capital from the United States, and indeed from the rest of the world, are also contributing heavily to the technological and operational buildup of the PLA. According to the U.S.-China Economic and Security Review Commission, in October 2020, there were 217 Chinese companies listed on NASDAQ, the New York Stock Exchange (NYSE) and NYSE American, with a combined market capitalization of $2.2 trillion.[39] In 2020, Chinese-based companies raised approximately $11.7 billion in the United States through 30 initial public offerings. This represents the highest amount of capital raised since 2014, when Alibaba went public as the biggest IPO.[40]

Further, publicly available data indicate that the United States imported approximately $451 billion in goods and services from the PRC in 2020.[41] The aggregate value of these imports

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[37] *Id.* at sec. 4.

[38] European Chamber of Commerce, *European Chamber Report on China's Corporate Social Credit System, A Wake-Up Call for European Businesses in China* (Aug. 28, 2019), https://www.europeanchamber.com.cn/en/press-releases/3045/european_chamber_report_on_china_s_corporate_social_credit_system_a_wake_up_call_for_european_business_in_china.

[39] U.S.-China Economic and Security Review Commission, *Chinese Companies Listed on Major U.S. Exchanges* (Oct. 2, 2020), https://www.uscc.gov/research/chinese-companies-listed-major-us-stock-exchanges#:~:text=As%20of%20October%202%2C%202020,the%20three%20major%20U.S.%20exchanges.

[40] Cheng, Evelyn, *China-based Companies Raised $11.7 Billion Through U.S. IPOs This Year, the Most Since 2014*, CNBC (Dec. 18, 2021), https://www.cnbc.com/2020/12/18/china-based-companies-raise-the-most-money-via-us-ipos-since-2014.html (citing data from Renaissance Capital).

[41] U.S. Department of Commerce, International Trade Administration.

represents capital flows into China. Additionally, U.S. public and private equity investments in Chinese and Hong Kong domiciled companies totaled over $2.3 trillion dollars in market value of holdings at the end of 2020. Investments in Chinese and Hong Kong companies listed on Commerce's Entity List (a list of foreign entities subject to significant U.S. trade restrictions due to national and foreign policy concerns) totaled nearly $49 billion by market value.[42] Investments in state-owned enterprises (SOEs) in China and Hong Kong totaled over $152 billion by market value. Investments in CCMCs totaled nearly $48 billion and investments in Military End User (MEU) companies (another list of foreign entities subject to significant U.S. trade restrictions) stood at nearly $6.5 billion. Investments in the banned mobile apps, which were the subject of the January 5, 2021 Executive Order (EO), including Alipay and Tencent,[43] totaled nearly $650 billion.

By sector, nearly $43 billion of U.S. capital has been invested in Chinese and Hong Kong telecommunications companies, over $1.3 billion in robotics companies, $50 billion in biotechnology companies, nearly $1.3 billion in aerospace and defense companies, $21 billion in semiconductor companies, $31 billion in pharmaceutical companies, $221 billion in AI companies, and $45 billion in data companies.

We need to consider these data points against the fact that, according to the Hurun Global Unicorn List issued in August 2020, of the 586 unicorns globally – startups valued at over $1 billion – China had 227 unicorns (up from 206 unicorns in 2019) compared with 233 for the United States (up from 203 in 2019).[44] Many of these unicorns in China represent technologies in key emerging sectors that threaten to undermine the United States both in terms of economic competitiveness and national security. AI, for example, is one of the largest sectors in the listing. Chinese doctrine has stressed AI as a lynchpin of future economic and military power, and of course it is the technology driving China's social and corporate credit systems. China has 21

[42] U.S. Department of Commerce Entity List, at Supplement No. 4 to Part 744, https://www.bis.doc.gov/index.php/policy-guidance/lists-of-parties-of-concern/entity-list.

[43] Exec. Order No. 13971, 86 Fed. Reg. 1,249 (Jan. 5, 2021), https://www.federalregister.gov/documents/2021/01/08/2021-00305/addressing-the-threat-posed-by-applications-and-other-software-developed-or-controlled-by-chinese.

[44] *Hurun Global Unicorn Index 2020*, Hurun Research Institute (Aug. 4, 2020), https://www.hurun.net/en-US/Info/Detail?num=E0D67D6B2DB5.

unicorns in this critical sector and the United States has 35. In fintech, China has 18 while the United States has 21, but the cumulative valuation of these Chinese unicorns is $239 billion while the United States stands at only $84 billion. Further, of the top 10 unicorns in 2020, the largest four are Chinese firms: Ant Group, ByteDance, Didi Chuxing, and Lufax. By contrast, the largest U.S. unicorn is SpaceX holding the number five position. The United States represents only four unicorns on the top ten list (with a cumulative valuation of $133 billion), whereas Chinese firms account for the remaining six (with a cumulative valuation of $378 billion). It is also worth underscoring again that all of these Chinese unicorns – like all Chinese companies – are subject to a patchwork of national security-oriented laws that allow Chinese security and intelligence services to effectively leverage Chinese firms for sensitive data, espionage, and other purposes.[45]

Further, American state and pension fund holdings in Chinese and Hong Kong companies totaled nearly $15 billion at the end of 2020, of which nearly $1.1 billion were invested in SOEs. Of course, when U.S. individual and institutional investors invest in Chinese firms, they may not be aware that they are funding companies involved in activities that are contrary to U.S. interests, including companies that appear on the Commerce Department's Entity List and CCMCs.

Finally, it is worth noting that the $2.3 trillion of U.S. investments in Chinese and Hong Kong companies should be considered in conjunction with China's disclosed defense budget, which stood at $178.6 billion in 2020 (this is second only to the United States),[46] as should U.S. equity investments in CCMCs, which represented 27 percent of this $178.6 billion figure. Furthermore, although many speculate that this $178.6 billion figure is significantly understated, the figure still does not capture the value of capital that flows from the CCP as subsidies to the PRC's commercial sector or the massive volume of foreign equity that pours into the PRC's business enterprises. Given that all commercial companies are mandated by the CCP to advance the growth of the PRC state and its military, it should come as no surprise that much of the U.S. capital transfers to the PRC are, in significant ways, aiding the PLA's technological and operational advancements as well. So too is capital from foreign sources worldwide. Put

[45] For instance, per Article Seven of China's 2017 National Intelligence Law, private Chinese companies are compelled to cooperate in "state intelligence work." Furthermore, these laws require data to be housed inside China, as well as require random inspections and black-box security audits.

[46] CRS PLA Report at 2.

differently, the more the United States and its allies transfer capital to the CCP, the more we fund the growth of the PLA and the PRC's larger military industrial complex and, consequently, the more we undermine the growth and strength of our own industries and national defense. This is astounding. In this zero-sum game, we should be funding innovation and technological advancements in the United States and the nations of our allies.

III. CURRENT U.S. POLICIES AND POTENTIAL FOR FURTHER ACTION

Juxtaposing the enormous size of capital flows into Chinese firms against the backdrop of the DOD's warnings about the growth of the CCP and the PLA, the gap in the United States' approach to national security policy becomes quite obvious. Fundamentally, as a nation, we need to ask whether we perceive the CCP's economic and military might as posing a risk to U.S. and global national security interests. If the answer is "yes," then we must determine the extent to which we are willing to enact policies that curtail our contributions to the CCP's growth.

Given that the CCP itself views its Military-Civil Fusion strategy as melding the commercial and military sectors into the same intertwined state-coordinated apparatus, then logic dictates that we ought to take the same view. This means coming to terms with the reality that our business dealings with the Chinese commercial sector have aided the growth of CCP's military industrial complex for the last forty years. Even business dealings where we service PRC industries' demand in low-technology commodity sectors are not benign, but rather create opportunities for the Chinese economy to shift resources away from low-technology enterprises to higher-technology sectors to accelerate indigenization and, in many instances, ramp up production scale. Many of us have witnessed firsthand these dynamics taking place and the ensuing hollowing-out of industries around the world. These are the realities underpinning our bilateral trading relationship; maintaining the status quo cannot be our strategy going forward.

If the United States Government, lawmakers, and citizens ultimately heed the DOD's warnings and conclude that the CCP's military industrial complex does indeed pose a threat to our national security and the security of our allies, then we need to quickly identify all legal authorities that may be used to decelerate our contributions to the CCP's and PLA's growth from both the standpoints of capital flows and transfer of critical technologies.

A. Legal Implications of CCMC Designations Under NDAA

It is important to note that, while the CCMC lists that the DOD produces pursuant to the NDAA are not sanctions lists themselves, the identification of CCMCs, as noted above, did cause the President to impose restrictions on such entities, pursuant to Section 1237 of the 1999 NDAA on November 12, 2020, by issuing EO 13959. This EO prohibits U.S. persons from engaging in transactions in publicly-traded securities of CCMCs (or securities that are derivative of, or designed to provide investment exposure to such securities). The EO cited national security, foreign policy, and economic concerns over U.S. investments in these companies in light of China's Military-Civil Fusion strategy, [47] and invoked IEEPA authority to address such concerns.[48] That EO remains in effect today.[49]

The CCMC designation has other legal implications as well, namely for U.S. government contractors and other companies participating in the U.S. Government's supply chain. For example, the Federal Acquisition Regulations (FAR) prohibit U.S. Government agencies from "procuring or obtaining" "any equipment, system, or service" that utilizes "covered telecommunications equipment or services" for certain critical technology or a "substantial or essential component of any system."[50] Although the FAR identifies several Chinese companies as being subject to the prohibitions, the regulations nevertheless apply to any other company "that the Secretary of Defense . . . reasonably believes to be an entity owned or controlled by, or

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[47] Exec. Order 13959, 85 Fed. Reg. 73,185 (Nov. 12, 2020), https://www.federalregister.gov/documents/2020/11/17/2020-25459/addressing-the-threat-from-securities-investments-that-finance-communist-chinese-military-companies, *as amended by* Exec. Order 13974 (Jan. 13, 2021), https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-amending-executive-order-13959-addressing-threat-securities-investments-finance-communist-chinese-military-companies/. EO 13959 observes that the PRC, through the Military-Civil Fusion strategy, "increases the size of the country's military industrial complex by compelling civilian Chinese companies to support its military and intelligence activities" and "aid their development and modernization." Additionally, the EO notes that the PRC pressures U.S. index providers and funds "to include these securities in market offerings, and engaging in other acts to ensure access to United States capital," and thereby exploits U.S. investors in order to "finance the development and modernization" of the Chinese military.

[48] The EO also authorizes the Department of Defense, in consultation with the Department of Treasury, to designate CCMCs as well as the Department of Treasury's Office of Foreign Assets Control.

[49] EO 13959 was amended on January 13, 2021 by EO 13974 (clarifying dates for divestment and other technical corrections), https://www.federalregister.gov/documents/2021/01/19/2021-01228/amending-executive-order-13959addressing-the-threat-from-securities-investments-that-finance.

[50] Federal Acquisition Regulation: Prohibition on Contracting with Entities Using Certain Telecommunications and Video Surveillance Services of Equipment, 85 Fed. Reg. 42,665 (July 14, 2020), https://www.govinfo.gov/content/pkg/FR-2020-07-14/pdf/2020-15293.pdf.

otherwise connected to, the government of a foreign country.[51] Moreover, the DOD's supplement to the FAR (the Defense Federal Acquisition Regulation Supplement) prohibits the acquisition of items covered by the United States Munitions List from a CCMC.[52]

Further, Section 514 of the Consolidated Appropriations Act for 2018 specifies that for "high-impact or moderate-impact" information systems, agencies must review the "supply chain risk," including the risk related to cyber-espionage or sabotage by entities identified by the U.S. Government "including but not limited to, those that may be owned, directed, or subsidized by the People's Republic of China."[53]

The CCMC list designation was also recently referenced in the Department of Commerce's December 23, 2020 final rule on export licenses to MEUs. Therein, the Department of Commerce's Bureau of Industry and Security (the unit charged with export controls on dual-use items) identified specific MEUs and announced that they would be subject to enhanced export licensing requirements under the Export Administration Regulations. Although only the Aviation Industry Corporation of China (AVIC) is listed both as a MEU and a CCMC, the agency nevertheless cautioned that other CCMCs (as well as other non-listed parties) could be military end users (or require licenses for items that are restricted for "military end uses") and that additional due diligence ought to be exercised by potential exporters to determine whether export restrictions apply.[54]

Finally, in any transaction that may be regulated by the U.S. Government, including procurement, federal agencies are authorized to exercise broad discretion in undertaking assessments of national security risks if CCMCs are involved. That said, in light of the small

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51 FAR, Section 4.2101(4).

52 Defense Federal Acquisition Regulation Supplement, Pub. L. No. 112-181, at sec. 225.770.

53 Consolidated Appropriations Act, Pub. L. No. 115-141, 132 Stat. 348, 439 (2018), https://www.congress.gov/bill/115th-congress/house-bill/1625/text.

54 *Military End User List*, U.S. Department of Commerce, Bureau of Industry and Security, https://www.bis.doc.gov/index.php/policy-guidance/lists-of-parties-of-concern/1770.

number of CCMCs identified by the DOD to date (44 entities),[55] the Government's ability to fully address national security risks under these authorities is limited.

B. Improving the NDAA's Framework for CCP Designations

The 2021 NDAA expanded the definition of CCMCs and thereby presumably sought to enhance the DOD's ability, through CCMC designations, to keep pace with the CCP's and PLA's increasing control over the Chinese commercial sector and the CCP's rapid rise as the United States' number one national security threat.[56] Congress should consider additional amendments to the NDAA to further improve the DOD's CCMC designation authority.

First, the NDAA should not limit the definition of CCMCs to only those entities that provide "commercial services, manufacturing, producing, or exporting."[57] The reality is that CCMCs are also engaged in a range of other activities including engineering, R&D, technology development and deployment, data accumulation, computer coding, cloud computing, and non-commercial financial and logistics services that strengthen the PLA's operations and capabilities. The NDAA's scope should be expanded to capture all such activities as well.

Second, the NDAA's framework for CCMC designations appears to require "substantial evidence" under the Administrative Procedure Act to meet its definitional requirement, *i.e.,* that entities are "directly or indirectly" acting "on behalf of the PLA" or the "Central Military Commission," or that CCMC entities are "military-civil fusion contributor[s]" to the Chinese defense industrial base.[58] To the extent that the compilation of substantial evidence is required, then this would prolong and potentially frustrate, rather than facilitate, the designation of many CCMCs. Moreover, the current definition of CCMCs – *i.e.,* that "military-civil fusion contributor[s]" be entities linked in very specific ways to certain Chinese military institutions *rather than all military and CCP institutions* – is too narrow. It does not reflect the myriad of

[55] As noted, the designation of Xiaomi Corporation as a CCMC has been preliminarily enjoined pending final court order, *supra* n. 5.

[56] News Release, *China Poses Largest Long-Term Threat to U.S., DOD Policy Chief Says*, U.S. Department of Defense (Sept. 23, 2019), https://www.defense.gov/Explore/News/Article/Article/1968704/china-poses-largest-long-term-threat-to-us-dod-policy-chief-says/.

[57] 2021 NDAA, Sec. 1260H(d)(1)(B)(ii).

[58] *Id.*, Sec. 1260H(d)(1)(B)(i).

ways that entities may contribute to the operations and technological advancements of the PRC's military industrial complex beyond the criteria laid out in the NDAA. Hence, the narrow definition may prevent CCMC designations that are warranted.

The law should *facilitate* rather than impede the identification of CCMCs that pose national security threats. Here, Congress should consider amending the NDAA by instituting a "reasonable cause to believe" standard similar to the standard for including a foreign company on the Department of Commerce's Entity List. [59] This more flexible standard would facilitate the designation of CCMCs by reducing the evidentiary burden on the DOD and would reduce litigation risk for the Government as well.

Finally, and in light of the extensive levels of CCP-mandated integration and coordination across the PRC's commercial and military sectors, it may be reasonable to consider applying a *de jure* approach (rather than a *de facto* approach) for designating CCMCs. The reality is that the PRC's "Military-Civil Fusion" policy and national security laws require that all commercial and military entities operating in China help advance the objectives of the CCP, PLA, and other factions of the Chinese government. These laws, on their face, warrant the *de jure* designation of most PRC companies operating in strategic sectors as CCMCs without the need for any additional factfinding. Given that a *de jure* legal framework is able to more readily and expeditiously produce CCMC designations, capture more CCMC entities due to its broader legal reach, and facilitate the DOD's process for such designations, the NDAA should be amended.

C. Additional Recommendations for Action

To supplement the foregoing recommendations for future NDAA amendments, Congress and the Administration should consider exploring additional legal authorities to counter the wide range of threats posed by the CCP, PLA, and the PRC's expanding military industrial complex. At the outset, available data indicate that the volume of capital flowing from the United States to the PRC, and ultimately to the CCP and PLA, through financial investments and trade is extensive,

[59] 15 C.F.R.§ 744.11(b) ("Entities for which there is reasonable cause to believe, based on specific and articulable facts, that the entity has been involved, is involved, or poses a significant risk of being or becoming involved in activities that are contrary to the national security or foreign policy interests of the United States and those acting on behalf of such entities may be added to the Entity List ").

but it is not accurately tracked. The United States should institute a system that better tracks capital flows in a manner that is accurate, timely, and transparent, and we should encourage our allies to do the same. Indeed, whenever capital from Americans and allied nations are transferred to dangerous actors in *any* country, we must have a better understanding of the nature, scope, and scale of the problem in order to appropriately address it. We are not quite there yet.

Second, Congress's new Holding Foreign Companies Accountable Act, which was signed into law on December 18, 2020, represents a significant step forward in curbing America's exposure to financial risks when dealing with foreign companies listed on U.S. exchanges. This Act not only requires that listed companies declare that they are not owned or controlled by a foreign government, but the law also mandates that companies disclose to the United States Securities and Exchange Commission information on foreign jurisdictions that prevent the Public Company Accounting Oversight Board (PCAOB) from conducting inspections. The PCAOB has publicly acknowledged that it has been "prevented" by the CCP "from inspecting the U.S.-related audit work and practices of PCAOB-registered firms in . . . China, and, to the extent their audit clients have operations in mainland China, Hong Kong."[60] This has resulted in investors often not having a reliable picture of Chinese companies' financial health, and ultimately having to bear the resulting fallout associated with the lack of disclosure and difficulty in pursuing legal recourse. Under the Act, such companies will be banned from trading and delisted from U.S. exchanges if the PCAOB is unable to perform specific audits for three consecutive years. The PCAOB should be vigilant in its audits since accounting fraud runs rampant in the PRC.

Third, the Government's use of IEEPA authority in November 2020 to counter the threats posed by CCMCs, including restrictions on U.S. investments in CCMCs as described in the November 2020 EO 13959, as amended by the January 2021 EO 13974, is another step in the right direction. To broaden the scope of this ban, earlier this month, Senators Rubio and Kennedy introduced legislation entitled the American Financial Markets Integrity and Security Act to prohibit "malign Chinese companies" – including the parent, subsidiary, affiliate or the controlling entity – that are listed on the Department of Commerce's Entity List or the DOD's CCMC list,

[60] Public Company Accounting Oversight Board, Oversight/International, Updated List of Issuer Audit Clients of Firms in Jurisdictions Where the PCAOB Has Been Denied Access to Conduct Inspections, https://pcaobus.org/oversight/international/international/inspections/062011_updatedinformation.

from accessing U.S. capital markets.[61] Congress's forward-leaning approach to solving these complex issues should be commended, and additional legislation should be encouraged to protect U.S. citizens and investors from exploitation by all malign actors.

The fourth item addresses U.S. transfers of technology to high-threat actors. Although the Export Control Reform Act of 2018 (ECRA) legislated the protection of "emerging technologies" through the use of export controls, the debate continues in the U.S. Government as to the most effective way to implement ECRA's mandates and restrict such exports. At the outset, there is widespread recognition that emerging technologies are most vulnerable to foreign acquisition when they are at the nascent stages of development. Congress recognized this reality when it used the term "emerging" in ECRA. Indeed, at the nascent stage of development, the full range of applications that may arise from new technology are seldom identified. Because Congress recognized this uncertainty, it instituted regulatory controls over their exports given that the same technologies that wield the power to drive significant advancements in the commercial sector may also be exploited for both known and yet-to-be known dangerous uses by foreign adversaries. AI is a perfect example of this intersection.

My understanding is that the U.S. Government appreciates the enormous difficulty associated with the task of identifying "emerging technologies" for export controls when those technologies and their applications are constantly evolving. The Government further recognizes that, in order to move forward with controls, it must decide between two very different types of regulatory approaches. The first option is to wait until "emerging" technologies develop into somewhat better understood, more "mature" technologies in order to be more precisely defined for controls (in much the same way that most technologies are identified on export control lists). Alternatively, the U.S. Government has the option of acting more swiftly by delineating and controlling broader categories of technologies as "emerging technologies" under ECRA.

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61 Senator Rubio's Press Release, *Rubio, Colleagues Introduce Legislation Banning Harmful Chinese Companies from Exploiting U.S. Capital Markets*, (Mar. 3, 2021), https://www.rubio.senate.gov/ public/index.cfm/press-releases?id=B9291EF7-5B5C-4DE9-8A56-1972D12E9014; Senator Kennedy's Press Release, *Kennedy, Rubio introduce bill banning dangerous Chinese companies from exploiting U.S. capital markets* (Mar. 3, 2021), https://www.kennedy.senate.gov/public/2021/3/kennedy-rubio-introduce-bill-banning-dangerous-chinese-companies-from-exploiting-u-s-capital-markets.

I do not believe that the U.S. Government has abandoned either option to date, even though there are downsides associated with each. The former approach, whereby "emerging technologies" are narrowly defined, risks additional delay in instituting controls that are presently needed. Moreover, by attempting to define technologies that are not yet fully understood with a high degree of specificity, the Government may inadvertently omit necessary technologies from control. A too-narrow definition also increases the likelihood of circumvention by technology developers who may be able to reconfigure their technologies in minor ways in order 'design out' from the scope of controls. On the other hand, the alternative approach of adopting a broader definition of "emerging technologies" – while it allows for the more expeditious implementation of licensing requirements – runs the risk of regulating more exports than necessary to protect national security. To the extent the U.S. Government adopts either option, it should consider imposing licensing requirements for only exports of emerging technologies to entities and/or countries that pose the most significant national security risks. When the acquisition of emerging technologies by U.S. allies does not pose risks, allies could be exempt from licensing requirements. This approach eases the licensing burden on federal agencies and U.S. businesses.

Fifth, although the Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA) also represented a major milestone in protecting national security by providing the Committee on Foreign Investment in the United States (CFIUS) with enhanced authority to protect "critical technologies" from foreign acquisition through foreign direct investments (FDI), the U.S. Government has not yet been able to fully utilize this new authority. This is because FIRRMA's definition of "critical technologies" rests in large part on ECRA's identification of "emerging technologies," and until the U.S. Government makes progress on this issue, gaps in our national security laws persist.

Here too, the question of whether to narrowly or broadly define "emerging technologies" has important implications in the context of reviews of FDI transactions. On one hand, a broader definition would subject a wider range of transactions to FIRRMA authority, thereby giving the U.S. Government increased visibility into U.S. FDI activities and greater authority to restrict those that threaten national security. On the other hand, it is argued that increased regulatory oversight will deter FDI flows into the United States. To address this latter concern, the U.S. Government could consider limiting mandatory filing requirements to only those entities and/or countries that pose the most significant threats to U.S. national security. This would decrease regulatory burdens on U.S. businesses and ultimately reduce the volume of transactions subject to review by federal agencies.

Whichever option the U.S. Government pursues has serious implications. But the ultimate point here is that the U.S. Government needs to make substantial progress in its identification of "emerging technologies" under ECRA and "critical technologies" under FIRRMA. Movement on these fronts will give businesses some clarity going forward and enable the U.S. Government to fully exercise the legal authorities it possesses to protect national security. The exercise of those authorities has, for two years, languished.

Sixth, in much the same way that FIRRMA and its predecessor, the Foreign Investment and National Security Act of 2007, imposed national security reviews on inbound FDI transactions, Congress seems to be considering similar legislation for outbound investments to high-risk countries. New legislation would call for CFIUS-type reviews of U.S. capital flows to foreign markets – whether through public exchanges or private equity – for national security risks. Again, to lessen the burden on U.S. businesses in filing notices of such transactions for federal agency review and to ease the workload for U.S. Government agencies adjudicating such transactions, the scope of reviews could be limited to outbound transactions involving only foreign entities and/or countries that pose the most significant national security risks.

Seventh, the U.S. Government should develop a comprehensive, consistent, and complementary legal standard for evaluating the extent to which commercial and non-commercial foreign entities are controlled by or affiliated with their provincial or central governments. The lack of a comprehensive framework has, to date, significantly impeded the U.S. Government's analysis in export controls, FIRRMA investment screenings, intelligence community risk assessments, federal government acquisitions, and supply chain vulnerability analyses. This shortcoming ought to be remedied, and the solution is quite simple. Congress should, by legislation, adopt the longstanding legal definitions of affiliation that exist in U.S. international trade laws, through statute, regulations, and case precedent, and apply these definitions to augment the legal authorities currently existing across all federal agencies. The trade laws extend the definition of affiliation beyond ownership interests to the broad range of ways in which foreign governments are able to exercise influence over corporate entities' business operations such that the entities lose autonomy over key decisions. These trade laws have been upheld by U.S. courts for decades, are consistent with the United States' obligations under the World Trade Organization agreements, and will therefore withstand judicial scrutiny. Of course, the application of a comprehensive legal standard such as this would improve each federal agency's ability to maximize the use of its own existing authorities where a determination of affiliation is needed. Further, a consistent legal approach such as this would promote uniformity and predictability across the U.S. Government agencies' legal authorities, and provide better clarity to businesses seeking regulatory approvals.

Finally, there is often little convergence across the various lists of sanctioned entities issued by the U.S. Government, including the Treasury Department's Specially Designated Nationals and Blocked Persons Lists, the Commerce Department's Entity List and MEU list, and the DOD's CCMCs lists. In some instances, this separation makes sense given that various sanctions are governed by different legal authorities and standards. In other instances, where the legal standards overlap, it makes sense to harmonize the lists. Further, many regulatory reviews of transactions involving these entities could be assessed under a presumption or policy of denial, to the extent the U.S. Government considers that these entities pose serious national security risks. Greater transparency in the regulatory process would provide certainty to U.S. businesses and improve consistency in the U.S. Government's approach to protecting national security.

IV. <u>CONCLUSION</u>

I would like to conclude with a note of caution. It is widely known that the PRC controls the supply of materials that are most essential to our defense capabilities, including critical minerals, metals and rare earths, and lithium-ion battery cells. The reason the CCP has not restricted our access to these materials yet, although it has threatened to do so, is because the PRC continues to be dependent on our highly-advanced semiconductor technology. Once, however, the PRC achieves semiconductor parity with the United States – a certainty, which is as little as four to five years away – the CCP will be perfectly positioned to withhold these materials in order to force the United States and other countries to bend to its will. Should this happen, our defense capabilities will be crippled.

We ought to keep in mind that the CCP has made amply clear – through the tremendous size and pace of the PLA's military modernization efforts – that it is preparing for some significant form of power confrontation with the United States and the rest of the world. Time is not on our side, and we must take every step necessary to preserve our national security interests.

I look forward to your questions.

OPENING STATEMENT OF PERTH TOLLE, FOUNDER, LIFE + LIBERTY INDEXES

COMMISSIONER BOROCHOFF: Thank you very much.

And now Ms. Tolle. You're muted.

MS. TOLLE: Hello. Can you guys hear me? Okay.

Thank you, everyone, for having me here. And thank you, Commissioners, for taking on this important issue.

So, I come here from the investment community to be with you today. I run a company called Life + Liberty Indexes. We are the world's first freedom-weighted emerging markets index. And so, I'm here to talk with you about the investment community, the indexing community, and how we may work together to take on some of these issues head-on here.

And so, the first question that I wanted to address is -- from you guys is how do you view the respective roles of the government and the market in ensuring U.S. investment does not fund Chinese companies which pose a threat to U.S. national security and values?

And just a disclaimer before we get started here, anything I say is not to be construed as investment advice nor a recommendation to buy or sell securities.

So, the prevailing mindset within the investment community, and I'm speaking generally here for my peers, is that issues like national security and values are not our concern. Instead, our concern is creating shareholder value through higher profits. And again, I'm not speaking for myself or my company, but just in general what I see in the community.

Publicly traded companies like iShares and their respective index providers, like MSCI, report their earnings and outlook quarterly, they're publicly traded companies. So, the concern of dominant market participants is typically not what's best for the world on a long-term basis but what's best for earnings on a quarterly basis. Any responsibility for national security or values is therefore typically left to the government.

The ESG movement does not change this. If anything, it's another manifestation of this mentality, which I'll discuss further below. While there's growing awareness among investors that they have an outsized China allocation in their passive funds, there's little they can do to change those benchmarks. And the large index providers are limited to standard methodologies, which I'll discuss further here.

Due to the nature of these indexing standards, it would be very difficult for the large indexers to change their trajectory without policy intervention. MSCI CEO has stated that they would restrict China investments only if regulations made it a requirement.

As a freedom indexer, I typically don't advocate for government intervention, and my company is here with a private market solution for investors who care about these issues. But we are a very small drop in a very large ocean, and I can say with a high degree of confidence that policy solutions are needed if investments in Chinese companies are to be restricted in any meaningful way.

In fact, without policy solutions, investments in Chinese companies would probably accelerate because it is a Chinese government policy priority at the moment to bring more foreign investments and foreign capital into the country. And the finance and investment industries are, generally speaking, willingly myopic to the risks and consequences of such investments.

The second question you guys had is please discuss investment index providers' rationale and methodology for including Chinese securities. What role can the U.S. Government play in ensuring investment index providers consider the unique risks posed by investing in Chinese securities?

Okay. So, the most standard index methodology is market capitalization weighting, meaning the largest companies by market cap, and in turn the largest markets, receive the largest allocations, or weights, in the index. Index providers classify countries as either developed markets, emerging markets, or frontier markets. Most asset managers will have a separate allocation to each of these categories.

The largest index providers, MSCI and FTSE, serve as benchmarks -- mostly MSCI -- for the world's institutions and set the country classification standards. And all of them classify China as an emerging market, so I will focus on emerging market indexes today.

The emerging markets country universe typically contains around 26 countries, China having the biggest market capitalization by far, as a result of its huge size and the fact that it is classified as an emerging market. The reason why it is so big, or one of the reasons, is that we continue to invest in these companies, and these indexes do facilitate that.

The MSCI emerging markets index has 38 percent allocated to China alone. The FTSE emerging markets index has around 43 percent. So -- but on average, it's about 40 to 41 percent in China alone in your emerging markets allocation. Now in the investment world, what we have called this is a lack of diversification or a huge concentration risk. However, this is the way that these emerging markets indexes are right now.

Our company is the opposite of that. We have no China allocation because we are freedom-weighted, not that we are excluding China arbitrarily, just -- it's freedom-weighted. So, the freedom-weighting naturally excludes some of these more on-top autocratic countries. But we are, again, very small compared to these larger companies.

And so, the biggest funds or ETFs, or Exchange Traded Funds, which is the type of funds that I work in, that are tracking these indexes are VWO, IEMG, and EEM. VWO is the Vanguard emerging markets index fund. IEMG is a -- it's the iShares emerging markets core ETF, and the EEM is the iShares emerging markets ETF.

So, there's $78 billion currently in assets under management with 44 percent allocation to China in VWO, 76 billion AUM in IEMG with 37 percent allocation to China, 29 billion AUM in EEM with 39 percent allocation to China. And so that data is as of March 5th, the day that I did this written testimony.

So last week, as of March 5th, $2 billion in U.S. investments flowed to emerging markets ETFs, according to Bloomberg. $1.5 billion of that went to IEMG product, and China was by far the biggest country-level beneficiary. So, any time money flows into emerging markets indexes, China is the biggest beneficiary because of its large allocation.

I mean to give you kind of a comparison, Saudi Arabia and Russia, being the other two very autocratic countries in these indexes, have only between 2 and 3 percent in the index.

Even more impactful to ETF flows is the fact that these indexers provide the benchmarks for all of the world's investment institutions. All of the world's biggest pensions, endowments, sovereign funds, by investment policy, cannot deviate from these benchmarks. So they, too, must have about 40 percent allocation to China in their EEM allocations.

So in short, the largest index providers set the standards for the investment industry by providing the benchmarks by which the asset allocators of the world's institutions are measured and mandated to track. As a result, the standard in the investment industry is to have 40 percent in China in diversified emerging markets allocations.

I see the U.S. Government's role as a regulator who won't be as swayed by state narratives and promises of market access, and who can set the rules for market participants in a country with rule of law and investment protections. In a good-cop/bad-cop scenario, I see you guys as the much-needed bad cop.

As someone that works on Wall Street, I can tell you right now that Wall Street is always going to be the good cop. We want to be everyone's best friend, so we're not going to ever say to China -- without your help, we're not going to say, we're not going to invest in you, because we just want to be friends with everyone. We want that market access, and again, not speaking for myself, but for the industry.

COMMISSIONER BOROCHOFF: Thank you, Ms. Tolle.

MS. TOLLE: Oh, wait. I -- did I -- am I out of time?

COMMISSIONER BOROCHOFF: Yes.

MS. TOLLE: Okay.

COMMISSIONER BOROCHOFF: Do you have -- how much do you have left? We'll give you a chance during questions.

MS. TOLLE: Well you guys have the testimony. So I'll let you ask questions.

PREPARED STATEMENT OF PERTH TOLLE, FOUNDER, LIFE + LIBERTY INDEXES

Statement for the U.S.-China Economic & Security Review Commission

Hearing: U.S. Investment in China's Capital Markets and Military-Industrial Complex
Panel: U.S. Government Restrictions on Investment in China
Date: March 19, 2021

Panelist: Perth Tolle
Title and Organization: Founder, Life + Liberty Indexes

How do you view the respective roles of the government and the market in ensuring U.S. investment does not fund Chinese companies which pose a threat to U.S. national security and values?

The prevailing mindset within the investment community is that issues like national security and values are not our concern. Instead, our concern is creating shareholder value through higher profit. Publicly traded fund companies (e.g. iShares) and their respective index providers (e.g. MSCI) report their earnings and outlook quarterly. So, the concern of dominant market participants is typically not what is best for the world on a long-term basis, but what is best for earnings on a quarterly basis. Any responsibility for national security or values is therefore typically left to the government. The ESG movement does not change this. If anything, it's another manifestation of this mentality. We'll discuss further below.

While there is growing awareness among investors that they have an outsized China allocation in their passive funds, there is little they can do to change benchmarks. And the large index providers are limited to standard methodologies which I will discuss in more detail in further testimony. Due to the nature of these indexing standards, it would be very difficult for the large indexers to change their trajectory without policy intervention. MSCI's CEO has stated that they would restrict China investments only if regulations made it a requirement.

As a freedom indexer, I don't typically advocate for government intervention. And my company is here with the private market solution for investors who care about these issues. But we are a very small drop in a very large, very deep ocean. And I can say with a high degree of confidence that policy solutions are needed if investments in Chinese companies are to be restricted in any meaningful way. In fact, without policy solutions, investments in Chinese companies would probably accelerate, because it is a Chinese government policy priority, and the finance and investment industries are, generally speaking, willingly myopic to the risks and consequences of such investments.

Please discuss investment index providers' rationale and methodology for including Chinese securities. What role can the U.S. government play in ensuring investment index providers consider the unique risks posed by investing in Chinese securities?

The most standard index weighting methodology is market capitalization weighting, meaning the largest companies (by market capitalization), and in turn, the largest markets, receive the largest allocations, or weights, in the index. Index providers classify countries as either "Developed Markets," "Emerging Markets," or "Frontier Markets." Most asset managers will have a separate allocation to each of these of these categories. The largest index providers (MSCI and FTSE) serve as benchmarks for the world's institutions and set the country classification standards, and all of them classify China as an emerging market. The emerging markets country universe typically contains around 26 countries, China having the biggest market capitalization by far as a result of its huge size and the fact that it is classified as an emerging market. Most emerging markets indices have about 40% direct allocation to China. The MSCI Emerging Markets Index has around 38% and the FTSE Emerging Markets Index has around 43% China allocation currently. The biggest US ETFs tracking these indices are as follows:

VWO – $78B in assets under management (AUM), 44% allocation to China

IEMG - $76B AUM, 37% allocation to China

EEM – $29B AUM, 39% allocation to China

(AUM data as of March 5, 2021)

In the week of February 22, 2021, $2B in U.S. investments flowed to emerging markets ETFs (Source: Bloomberg), $1.5B of that went to IEMG, and China was the biggest country level beneficiary, due to its huge allocation in the index and consequently, the funds tracking them.

Even more impactful to ETF flows is the fact that these indexers provide the benchmarks for the world's investment institutions – pensions, endowments, sovereign funds, etc. By investment policy, these institutions cannot deviate from their benchmarks, so they, too, must have about 40% allocation to China in their EM allocations.

In short, the large index providers (MSCI, FTSE, S&P) set the standards for the investment industry by providing the benchmarks by which the asset allocators for the world's institutions are measured and mandated to track. But, like the rest of Wall Street, they are primarily sales people, and want to be everyone's best friend, especially that of foreign powers doling out VIP perks and promises of market access.

I see the U.S. government's role as the regulator who can't be swayed by state narratives, and who sets the rules for market participants in a country with rule of law and investor protections. In a good cop/bad cop scenario, we need policy makers to be the bad cop.

Please discuss the relationship between investment index providers and asset managers with respect to inclusion of Chinese securities in major investment indices. What incentives drive these parties' investment decisions vis-à-vis Chinese securities?

Index providers license their indexes to be used as the basis for investment products like index mutual funds and ETFs, and the big fund issuers are their clients. They also license to institutions (like the TSP, or CalPERS) to be tracked by separately managed accounts (SMAs). In this case, the institutions are their clients. The fund companies, in turn, sell their funds to institutions and retail clients (the investing public). Lastly, as previously mentioned, the index providers, as standard bearers, set the benchmarks for the world's institutions.

The passive investment industry is dominated by three big fund issuers and their index providers, iShares ($1.8 Trillion AUM as of September 2020) mostly benchmarking to MSCI indices, Vanguard ($1.3 Trillion AUM as of September 2020) mostly benchmarking to FTSE indices, and State Street Global Advisors (SSGA, $772 Billion AUM as of September 2020) mostly benchmarking to S&P indices. Together these three issuers represent about 70% of the market share of ETF issuers globally (Source: Statista).

Index providers and fund issuers are driven by profit incentives and market access. For the promise of market access (thus far unfulfilled) and with the threat of curtailed business, they willingly buy in to the China growth narrative, turning a blind eye to the obvious national security issues, human rights atrocities, opaque ownership structures, high level of state interference, inefficiency, fraud, and total lack of investor protections and rule of law.

Index providers will do what their biggest clients request. When the investment ban on military linked companies was announced, they surveyed their clients and asked them what course of action they should take. Their clients, the fund issuers and asset managers, responded with their preference that the banned companies be dropped out of indices. And that's when all the index companies made announcements of the drops.

What are the limitations of investment filtering methods that attempt to consider social and governance factors, like ESG? Are these effective screens against state influence and links to authoritarian governments?

Industry standard ESG parameters are company level and not country level, and thus are completely useless screens against state influence and links to authoritarian governments which are country level metrics.

In addition, ESG funds, based on methodology, cannot deviate much from their parent index country allocations. Here is the result – the largest emerging markets ESG funds and their China allocations:

ESGE, iShares ESG Aware MSCI EM ETF – 37% China

NUEM – Nuveen ESG EM Equity ETF – 39% China

No alcohol, tobacco, gambling or guns, but 1M+ people in prison camps is totally fine? And does it make sense to exclude companies like Lockheed Martin when they are providing weapons to Taiwan to help them defend their own democracy? Are we woke, or are we blind? Basic freedoms, democratic institutions, and rule of law on the country level are the basis of all ESG on the company level, and in emerging markets, to ignore the former is to render the latter a joke, at best.

It's deceptive for ESG fund issuers to claim they are acting in interest of the public when they are acting against it by using investor money to fund autocracies and spreading the narratives of foreign governments ("China as world leader in ESG" despite being the world's worst polluter and among the worst human rights offenders) without disclosing their own interests for doing so – to justify higher fees, and to gain market access in said autocracies.

Firms that hold themselves out to be objective should not act in favor of foreign state actors under threat of curtailed business or for the (false) promise of market access. And firms that hold themselves out to be the arbiters of ESG should hold themselves to an even higher standard of disclosure and transparency, especially about concentration risk of autocrat exposures in passive funds.

There are information asymmetries between developed capital markets and those in emerging markets, particularly China. How can retail investors who increasingly invest in passively managed funds navigate these asymmetries?

Without investor protections and rule of law around transparency and disclosures, emerging markets, particularly China and other autocracies, often withhold and manipulate necessary information/data and narratives.

Investors in passively managed funds can navigate these asymmetries by using a strategy that accounts for country level metrics in emerging and frontier markets. Our solution is freedom-weighting, where autocratic EMs like China, Russia, and Saudi Arabia are naturally excluded, and the higher weights go to freer countries. We think this makes more sense than excluding China arbitrarily, but ex-China EM is an additional solution that exists in the ETF space.

The Commission is mandated to make policy recommendations to Congress based on its hearings and other research. What recommendations for legislative action would you make based on the topic of your testimony?

More specifically to capital markets:

1. Enforce our policies – our exchanges have allowed Chinese companies to use a loophole to get around audit requirements that every other listing from anywhere else has to follow. We should continue enforcing the policy to delist companies that do not comply with these standards and universally applied listing requirements.

2. Indexes and funds can get around delisting by owning the foreign listed shares, i.e. H-shares of Alibaba instead of the ADR. The US government could ban investments in any shares of Chinese companies that don't meet listing requirements, regardless of listing venue.

3. We could also require full disclosure of ownership as a listing or investment requirement. If a company refuses to disclose 100% of company ownership, they can't prove that they are not owned by shell companies benefitting Chinese government actors.

4. We could ban investments in companies that provide mass surveillance and data collection capabilities to the Chinese government. How many times has Tencent's WeChat been used to surveil and prosecute or disappear political dissidents or intimidate people into silence, for example, Dr Li Wen Liang?

5. We could incentivize allocators, especially federal and state pensions and retirement plans, to use indexers and asset managers who consider these risks for federal and state plans, like we do for ESG or women/minority owned businesses.

6. We could require disclosures of country concentrations over a certain percentage, for example, anything over 30%, in broad based funds such as diversified emerging markets funds.

More broadly:

1. Work with our allies to build coalitions around this issue.

2. Support our own market and keep it competitive.

3. Support Taiwan and other freer developing nations.

I'll leave further creative legislative solutions up to you and leave you with this. We are the leaders of the free world, there's immense power and responsibility in that. In the investment community, many of us don't realize that we hold the keys to power, we are in position to direct assets, and we can use that power for good. How we direct assets has consequences for ourselves, others, and the world we live in. Instead of making decisions based on fear (of deviating from the benchmark), we should make decisions based on what we hope to see and the impact we hope to have. That's why my company exists, to provide investors who believe in the long term benefits of human rights and economic freedoms a way to express that in their emerging markets allocations. But the reason we can exist is because we have the protection of the rule of law of the United States of America. Otherwise, based on Hong Kong's new National Security Law, I would be labeled a criminal for even promoting these ideas. So I would ask you, advisors to the legislators of the United States of America, to use your powers for good. May you not act out of fear of a tyrant's response, because as long as we stand for our values, it is the tyrants who fear us. May you lead with boldness, unity, courage, and conviction, out of hope for what you'd like to see in the world and in defense of our values and security. Let's strengthen our own markets, work with our allies to develop coalitions to keep tyrants in check, and no longer allow our capital markets to be used as fundraising venues for foreign governments. Let's use our positions of privilege to fight for those living under oppression. Thank you for including me in your great work. Keep fighting, and God speed.

OPENING STATEMENT OF RYAN LAFOND, DEPUTY CHIEF INVESTMENT OFFICER, ALGERT GLOBAL

COMMISSIONER BOROCHOFF: Thank you very much.

And now Dr. LaFond.

DR. LAFOND: Good afternoon. For my testimony, I'll first provide opening remarks and address really the main question provided.

As way of background, I've been managing portfolios in emerging markets and specifically in China since 2007. Over this time period, U.S. investors' access to China has changed dramatically, primarily as a result of the Stock Connect Program, but also as a result of increased U.S. listings and greater integration of China into the global economy.

It seems to me that the main question is what are the costs and benefits of restricting U.S. investments in Chinese companies? Well, there's clearly a cost for U.S. investors in terms of a loss of diversification. How large the loss is ultimately depends on the size of the restrictiveness.

The penalties imposed on Chinese companies as a result of these restrictions are less certain. The majority of equity investment in China, specifically for retail investors, comes through trading of shares in the secondary market, where transactions take place between investors rather than through direct capital flows flowing into the firm. Restricting U.S. investment could potentially increase the cost of capital for Chinese companies, but this will ultimately depend on how accessible and receptive alternative capital providers are to such companies.

If the intention is to reduce the potential significance of U.S. capital in foreign companies that pose a potential threat to national security, restricting U.S. investment will likely have minimal impact on the underlying behavior of these firms. However, there are alternative channels of influence, like enhanced disclosures, that have the potential to impact firm behavior while imposing less of a diversification loss for U.S. investors.

We've heard today a variety of testimony about the challenges of information in China from an investor's perspective. I find many of these views somewhat dated, given how fast things are changing and evolving. I'll first note that this is not an issue specific to China but a more general issue with investing in non-U.S. firms and outside of the U.S.

The information environment outside of the U.S. is different than that of the U.S. In general, the information available to investors in China is better than most other emerging markets and even better than some developed markets, but it is different. The disclosures are different. The information flows are different. And these differences don't necessarily seem anything bad or imply some higher instance of malfeasance than we observe in other markets. They're just different.

We'd always favor more information and more monitoring. And this is what's actually happening and advancing quite fast in China as China's opened up to more foreign capital. As China's opened up, we've seen increases in disclosures, monitoring, and due diligence on the equities available to most U.S. investors. Further opening and integration into global capital markets will likely continue this trend and ultimately continue to improve this from its current and prior levels.

I'll next turn to the specific question of the role of the government and the market in ensuring U.S. investors do not fund Chinese companies which pose a threat to U.S. national security and values.

The role of the government regulators in potential exchanges should be to provide clear guidance as to what are permissible current and potential investments. There currently exist government restrictions on a variety of investments. Imposing additional restrictions is one of the many roles of regulators.

The key feature for investors is that we need clear guidance as to what constitutes a threat to national security and thus would be a restricted investment. We would benefit from clear guidance around issues such as materiality thresholds for such proposed rules. If, for example, a firm produces steel that's used in making tanks and in buildings, what proportion of the firm's steel production going into tanks would pose a national security threat?

The main fear from the investor perspective is that the potential rules are enacted in an overly broad fashion, impacting a variety of firms. The inclusion of the word "values" in the above question raises substantial concerns, as values mean very different things to different people.

I have substantial concern with the U.S. Government regulators imposing restrictions based on values. How would the government define values and translate those values into clear guidelines for investors?

Finally, I want to reiterate from the investor's perspective, consistency and transparency are the most critical features of any restrictions. If the government chooses to continue or add to restrictions, we need clear rules and precise identification of restricted securities, as well as clear guidelines as to how these restrictions are determined. Thank you.

PREPARED STATEMENT OF RYAN LAFOND, DEPUTY CHIEF INVESTMENT OFFICER, ALGERT GLOBAL

March 19, 2021
Ryan LaFond
Deputy CIO Algert Global
Testimony before the U.S.-China Economic and Security Review Commission
U.S. Investment in China's Capital Markets and Military-Industrial Complex

For my written testimony I'll first provide opening remarks, and then address the questions provided sequentially.

As way of background, I've been managing portfolios in Emerging Markets, and specifically in China, since 2007. Over this time period, U.S. investors' access to China has changed dramatically, primarily as a result of the Stock Connect program, but also as a result of increased U.S. listings and greater integration of China into the global economy. China is both an important market for U.S. investors and for companies engaged in multinational sales and operations. China is increasingly a major component of investors' portfolios both through direct investment in Chinese companies' stock, and through the increased importance of China for domestic and international companies.

It seems the main question is what are the costs/benefits of restricting U.S. investments in Chinese companies? While there is clearly a cost for a U.S. investor in terms of loss of diversification, how large the loss is ultimately dependent on the size of the restricted list/companies. The cost/penalties imposed on Chinese companies as a result of these restrictions is less certain. The majority of equity investment in China, specifically for retail investors, comes through the trading of shares in the secondary market, where transactions take place between investors rather than through direct capital flows to the firm. Restricting U.S. investment could potentially increase the cost of capital for Chinese companies, but this will ultimately depend on how accessible and receptive alternative capital providers are to such companies.

If the intention is to reduce the potential significance of U.S. capital in foreign companies that pose a potential threat to national security, restricting U.S. investment will likely have minimal impact on the underlying behavior of these firms. However, there are alternative channels of influence, like enhanced disclosure requirements, that have the potential to impact firm behavior while imposing less of a diversification loss for U.S. investors. Many firms already disclose information on business activities and sources of revenue, in particular government revenues. Enhancing these disclosure requirements would provide investors with additional information to assess the potential risk and returns of their investments. Disclosure also has the additional benefit of providing more information to monitor potentially controversial activities.

I'll next turn to providing responses to the questions posed.

1. *How do you view the respective roles of the government and the market in ensuring U.S. investment does not fund Chinese companies which pose a threat to U.S. national security and values?*

The role of the government, regulators, and potentially exchanges should be to provide clear guidance as to what are permissible current and potential investments. There currently exist government restrictions on a variety of investments, and imposing additional restrictions is one of the many roles of regulators. The key feature for investors is the need for clear guidelines as to what constitutes a threat to national security and thus would be a restricted investment. We would benefit from clear guidance around issues such as the materiality thresholds for proposed rules. If, for example, a firm produces steel that is used in tanks and buildings, what proportion of a firm's steel production going to tanks would pose a national security threat?

The main fear from the investor perspective is that potential rules are enacted in an overly broad fashion impacting a variety of firms. The inclusion of the word "values" in the above question raises substantial concerns as "values" mean very different things to different people. I have substantial concerns with the U.S. government and regulators imposing restrictions based on "values." How would the government define values, and translate values into clear guidelines for investors?

Finally, I want to reiterate that from investors' perspective, consistency and transparency are the most critical features of any restrictions. If the U.S. government chooses to continue and/or add to these restrictions, we need clear rules and precise identification of restricted securities as well as clear guidelines as to how restrictions are determined.

2. *Some argue that investment in China's capital markets or those in other emerging economies provides an important source of portfolio diversification. How can U.S. policy preserve any such opportunities while also defending against the national security threats posed by some Chinese companies?*

   Diversification is one of the key reasons for investing beyond U.S. companies. Further restrictions on these activities will result in less diversification, and the ultimate cost will be determined by the size of the asset pool included in the restrictions. Any investment in non-U.S. domiciled firms comes with additional risk as regulations, disclosure, and investor protection vary by country. Investors need to be aware of these risks. Investors should always know what they own and specific risks involved in various investments. The key tool through which investors assess these risks is through disclosures. The role of the government and various market regulators is to ensure that investors have adequate disclosures to assess these risks. Rather than restricting investments, regulators could enhance the disclosure requirements for U.S. listed firms and work with global regulators to enhance disclosure requirements across the globe. Firms do respond to investors' disclosure requests. By working with regulators, firms, and investors there is the potential to enhance disclosure to better assess the potential national security risk of certain investments.

3. *As Beijing pursues financial opening, U.S. investor exposure to unique risks in China's capital markets rises. How desirable is the deeper integration of the U.S. and Chinese financial markets in light of these risks and considering heightened strategic competition between the United States and China?*

Both companies and investors have large interests in China. This is not only due to investments in China directly but also due to the interdependence of companies operating in the global economy. Chinese investors provide capital, sales, and supplies for U.S.-based firms and U.S. investors provide capital, sales, and supplies for Chinese firms. The openness of the Chinese market is crucial for both parties. Increased foreign investment in China reduces volatility by further diversifying the source of capital and shareholder base. Being able to invest in one of the largest and fastest growing economies provides unique opportunities for U.S. investors that is beneficial for both diversification and return generation. Deeper integration of U.S. and Chinese capital markets is highly desirable for all parties. Some of the benefits of the increased openness of the Chinese market are increased monitoring by foreign investors, better access to disclosures, and information about firms' activities. The initial phases of integration have resulted in increased information production and monitoring of Chinese firms by foreign investors and analysts improving the transparency of the Chinese market for all parties. As the product and capital markets have become more integrated, we have seen improvements in business practices and increased monitoring of issues such as the treatment of workers, environmental issues, and firm transparency; these are all ancillary benefits of increased integration.

4. *There are information asymmetries between developed capital markets and those in emerging markets, particularly China. How can retail investors who increasingly invest in passively managed funds navigate these asymmetries?*

   While passive funds have various rules for inclusion in passive indexes, the majority of these rules revolve around size and liquidity. While these funds do include a variety of disclosures of the risk and returns of these investments, I would surmise that most investors do not read through these details. One potential solution would be to introduce some type of scoring or grading system of the business practices that are in question or introduce specific disclosure rules for passively managed funds to address the potential national security threat.

5. *How do you assess the impact of current U.S. restrictions on investment in Chinese companies listed on the Mainland? What else could the United States do differently to target investment that could potentially benefit Chinese defense firms or otherwise fund companies acting contrary to U.S. national security interests?*

   We assess the impact based upon the current restricted lists and any subsequent update to the lists. In term of what else could the U.S. do? I will again stress the importance of disclosure. Enhanced disclosure around potentially controversial business activities and government revenues would be beneficial. From a process perspective, I would hope that the process by which these or potentially other restrictions are enacted is improved. Specifically, we would benefit from a more precise identification of the restricted names and potential related entities. The current restrictions list only the company name and some references make mention of related entities and instruments, but that is vague. I would hope that going forward the restricted list can be populated with additional identifiers beyond just company names, adding ticker symbols, ISIN, and other identifying information would be beneficial. In addition, it would be useful to provide guidance as to the specific type of business activities and criteria that go into the restricted list so investors can better assess the implications of potential future restrictions.

6. *The Commission is mandated to make policy recommendations to Congress based on its hearings and other research. What recommendations for legislative action would you make based on the topic of your testimony?*

   Firms around the globe currently disclose various breakdowns of revenue, by product, by geography, and, in many cases, by customer type, including government contracting. One potential action along these lines would be to further enhance government sales disclosures by providing defense and non-defense related government contracts. If such disclosures were implemented, this information could then be used as an input for assessing the materiality of the potential national security threat. In addition to disclosing the dollar amount of government sales, the disclosures could include a narrative about the type of services/products the firm is providing to the government, which would provide additional information to investors.

PANEL IV QUESTION AND ANSWER

COMMISSIONER BOROCHOFF: Thank you very much.

And now for our first questions from Commissioner Wong.

COMMISSIONER WONG: Thank you, Mr. Chairman. And thank you to all our panelists. It was excellent testimony, and really the written testimony is where at least I am getting the most benefit. So very appreciate your efforts into putting together a very good written product.

My question goes to Ms. Nikakhtar. First of all, thank you for your recent service in government. You know, look, it's fun to be in government, but you do make sacrifices. So thank you for that.

You had mentioned the need to have a more precise, or at least some definition of emerging technologies as used in the ECRA. And you know, in your written testimony, you talk about where the U.S. Government, the executive branch, is somewhat on this, or that they're aware of the issues presented with more precise definitions vice more general definitions.

But could you maybe let me know where you are aware of -- where does that rulemaking stand? Is it in draft form? Is it being discussed? What can we expect soon?

MS. NIKAKHTAR: Very excellent question. And so just by way of background, I also served as Undersecretary for the Bureau of Industry and Security, so have some perspectives on sort of what the initiatives were and what the challenges were.

There's no question -- first of all, the Commerce Department didn't need ECRA to have the authority to control emerging technologies. It always had export control authority. And so, you know, the fact that Congress had to legislate that I think was just a nudge to sort of move forward.

And then I think that the struggle really is -- now I think in the last panel, there was a question about sort of what sectors do we want to focus on that are key to national security? Well, the Bureau of Industry and Security had produced a list of emerging technologies, and I think if we're trying to look at critical sectors, that's a really great starting point.

But then after producing the list, there was no movement. And I think this goes to -- the importance of this question goes to how do we need to adapt our thinking and our laws based on what we currently have? So, traditionally the way the export controls worked was that we identified the product with a really great degree of specificity because maybe that product's specifications lent itself to military uses versus different specifications didn't.

Now we're in the world of technology. We're in the world of emerging technologies where the same type of technical specifications lend itself to both military uses and commercial uses, and also whether just slight modifications can then move from, you know, the commercial and military sector.

So, then the fundamental sort of philosophical question is: do we want to use our traditional methods of export controls by controlling these items with that same degree of specificity, or do we want to kind of broaden the category of controls and maybe to not impose undue burden on industry? Because industry is sort of always trying pushing back and saying you don't want to overregulate. And I get that. Then maybe limit the controls to the countries of concern.

So, because there's an impasse, the government is at that impasse. If I do it too narrowly, I don't catch everything. If I do it too broadly, one, industry is not going to have any of it, but two, you know, do I overregulate? Then, it's in my testimony. I proposed, you know, maybe there is some merit to targeting the actors or the countries that we're most concerned with and proceeding that way.

But fundamentally, just to underscore, the main point of this response is that the way that we've been controlling technology doesn't lend itself to emerging technologies, and it doesn't lend itself to technologies in general. So how much is the government willing to adapt its thinking into thinking more broadly because of the synergies between the commercial and military sector?

COMMISSIONER WONG: Right. And I agree with you that the old export control model doesn't really work here, especially the technologies that are emerging and not mature. But it seems to me that when there's a line-drawing problem like this, or when there's fear of distorting the market activity based on the regulation, that you introduce process here when you can't do a precise definition.

So, for instance, this seems to be an area where a formal rulemaking process is due, where you put out a draft, where you invite testimony input from the private sector. Maybe that's happening; maybe that's not. But to hold up the rulemaking process because you don't know what the answer will be -- use the APA.

Use the process to bring in the private sector actors and all the various stakeholders to have input into the rule, and then to -- you know, because you probably won't get the rule right the first time -- enforce constant amendment by having a natural sunset period where there's a re-review, a republishing of the rule or revision.

I'm just coming up with these ideas in my mind. But it just seems that the urgency of this issue would mean that we should move quickly with the knowledge that we're going to make mistakes, but have room to modify those mistakes. And just one last idea thrown in there, instead of putting the burden on us or putting the burden on U.S. stakeholders to outline those definitions, perhaps one issue here or one solution here is to put it on the Chinese.

If they put in their planning documents and their guidance documents certain sectors, certain industries, certain technologies as priorities, that is absorbed, at least presumptively, as an area which needs licensing, which needs extra scrutiny, perhaps not prohibition, but at least we can allocate our attention in that manner.

Just putting those out there. I'm out of time. But if you do have thoughts on that, I would love to hear it.

MS. NIKAKHTAR: Yeah, Commissioner. Actually yeah, I want to address all those questions. So, the sectors that were identified in the proposal for comments for BIS really were targeted based on where China was going. So we did that.

We invited comments. We got a lot of comments. The problem is most of the comments said don't do anything, or don't do this, rather than being constructive. So, it really is incumbent, I think, on industry and the government to work together, to understand that we're in this together, we're rowing in the same direction, and let's be helpful to one another rather than sort of impeding the government's ability to move forward on these issues.

COMMISSIONER WONG: Thank you.

COMMISSIONER BOROCHOFF: Thank you very much.

Commissioner Wessel?

COMMISSIONER WESSEL: There we go. So many questions, so little time, as they say. Thank you all for being here.

Nazak, if I could, quickly to follow up on Commissioner Wong's comments and question, you know, I don't know that two and a half years is that long in government land, but it certainly is a lifetime in industry. Do you think it's possible to take Commissioner Wong's idea of simply a mirror image on what China is doing and use that as the standard?

MS. NIKAKHTAR: Yeah. I mean I think that goes to, sort of something that I had mentioned in the written testimony, which is take the sectors -- look at the sectors that are most critical to national security, and instead of putting controls on everything for every country, let's look at targeted actors. Let's look at targeted countries.

Let's not worry about all the technical specifications of AI, for example. Let's just look at, sort of, the uses of AI and then look at sort of having a licensing procedure for exports of certain AI type of capabilities without narrowly defining them to the actors of concern rather than the rest of the world.

It streamlines the process for the government agency. It reduces the burden on U.S. industry. But at the same time, it helps the government where it hasn't developed the capabilities or the expertise on what all AI may entail, to kind of capture -- at least put controls by -- in that, I mean put in a mechanism where at least you get to review the things that are proposed to be exported to the bad guys or maybe the adversaries or the dangerous actors, and at least offer a licensing mechanism rather than not doing anything, which is where we're at now, and not having any visibility as to what's going out there.

COMMISSIONER WESSEL: So earning your way through the process rather than just as we see in FIRRMA, where companies with minor alterations of their NAICS codes are able to avoid mandatory filing altogether. Is that right?

MS. NIKAKHTAR: Absolutely, and that's kind of been the game in the export control world, where you can kind of, quote, design out of a control. And you know, with the rapidly evolving pace of emerging technologies, we just don't have the luxury, I think, as one of the Commissioners said this morning, to constantly play catchup.

If we're really, as a country, going to be committed to being proactive and try to at least be in lockstep or one step ahead, we've got to try these uncomfortable positions. I know they're uncomfortable, but there's a way to thread the needle by doing what needs to be done but reducing unnecessary regulatory burdens on industry at the same time.

COMMISSIONER WESSEL: Let me ask you and have your co-panelists respond as well -- there are so many tools that we can look at to affect some of these challenges, the challenges based on national security directly, based on values, investing, et cetera.

What would your view be of limiting the tax benefits for any investments made in entity-list companies, DoD companies, et cetera, so that you would not be able to take a capital loss and you would not be able to get the long-term gain? Treat it -- you know, and not provide the preferences that exist for other investments?

MS. NIKAKHTAR: Look. I mean I think all -- first and foremost, all options -- we are dealing with an adversary, I think the last government or the last administration labeled China as, and at that, adversary of a size and scale we've never been before, an adversary that is nimble.

And so we need -- this is – the fact is important because we need to think about all creative solutions. So, what you proposed, Commissioner Wessel, is certainly creative. It's certainly forward-leaning. And companies and industries can't claim lack of transparency because I think your proposal is working off of lists that the government has already produced identifying dangerous companies.

So, I think there's quite a bit of merit to it, and I know that everything is uncomfortable. I know any restrictions we want to impose on ourselves are uncomfortable. But again, to the earlier point, the status quo isn't working. And we need to do something, and time isn't on our side.

COMMISSIONER WESSEL: My time is about up, but Ms. Tolle, do you have a view on that?

You're on mute.

COMMISSIONER BOROCHOFF: You're still muted.

MS. TOLLE: Sorry. I agree.

COMMISSIONER WESSEL: Thank you.

COMMISSIONER BOROCHOFF: Commissioner Talent? Commissioner Talent, your turn.

COMMISSIONER TALENT: Thank you, Bob.

Ms. Tolle, we need more people like you in politics with your brevity of speech. That was wonderful.

MS. TOLLE: Thank you. It is somewhat terrifying to be here, but -- it's not my normal venue. But I appreciate what you guys are doing.

(Simultaneous speaking.)

COMMISSIONER TALENT: Commissioner Fiedler is not as frightening as he looks. So, I can promise.

MS. TOLLE: Okay. Yeah, thank you.

(Simultaneous speaking.)

COMMISSIONER TALENT: Dr. -- oh, sorry. Let me ask you a question, and I've been struggling with these issues. Let me preface it by saying what we've been investigating recently in the last year as a Commission.

So, if you read our report last year, we have a chapter on what the PRC's global goals are. It was a -- Senator Goodwin and I co-chaired that hearing. And the conclusion we reached as a Commission -- and this was unanimous -- is that their goal is to overturn and/or subvert the norm-based international system, the system according to which nations relate to each other more or less by norms, try and resolve disputes peacefully, trade/travel on equal terms with other countries.

And they want to replace that with a system, a hierarchy where they're on the top. And there are still rules and regularity, but they get to use the rules when they want to to advance or evade the rules to advance Chinese national interests.

And then we had a hearing -- the last hearing we had was on the risk of Beijing deciding to resolve the Taiwan issue coercively. And the balance of hard power in the region has shifted to the point where it is plausible that they can do that now. And if trends continue, the witnesses who testified felt that they certainly would be able to do it by the end of the decade.

And were they to do that, it would likely cause the collapse of our alliance structure in INDOPACOM and would lead to all kinds of aggression and perhaps them asserting sovereign control over the South China Sea, who can ship in the region, et cetera. So, the stakes here are pretty big as far as we can tell.

Now maybe all that's wrong. But I think the risk that it's right is pretty high. So, if you're a policymaker in the Congress or in the Biden Administration, you're Secretary Austin, you're looking at this and you're saying, you know, we want to keep those things from happening, and we want to use tools to do that that keep us as far away from an actual kinetic conflict with China.

And I think that's the reason everybody's looking at, well maybe we can constrain their aggressive capabilities by using the economic power that we have. Now I'm not --I didn't set this up to put you on the spot at all. I really didn't, because I -- well I understand what you're saying. I don't want to cut off our nose to spite our face. I don't want to put in restrictions on investment and the rest of it that hurt American investors or American business and don't accomplish anything.

But given what I've just said, what would you suggest -- and I know you have some ideas in there. I really liked your point about clarity being very important. What would you suggest that would be a good way to use our control over American capital investment in a way that sent the right message to Beijing that kept them from developing these dual-use technologies, et cetera, or at least constrained them in that? What do you really think we might be able to do to use this tool effectively?

DR. LAFOND: You know, I think first and foremost, I'll tell you it's difficult for us to act unilaterally. You need partners, all of which you're talking about ultimately depends on if you restrict U.S. capital, the effect of that on the underlying firms is a function of what the other capitals with capital will do.

And this is where -- you know, I continue to go back to more information and more disclosure is better. Absent some effectively collective action more globally, whether it be in a partner specific to the U.S., Europe, I think the best that we can do is to try to provide more information through the realm of disclosure.

And by having more information out there in the public, I think potentially we're in a better spot. But I think ultimately in looking at the various reports of what's been done and our own thoughts on the topic, the main challenge with this is that you can restrict U.S. capital flows; it is very uncertain that that will have any effect on the underlying firms.

And so, if your goal is to achieve some harmonization, bring in some variety of global norms to certain things, that's a -- it's very challenging to see how the policies that are being pursued when it comes to restricting investment will achieve that.

COMMISSIONER TALENT: Well Ms. Tolle just said -- and I'm over my time, so very briefly -- that the indexes and the others have said look, we're not going to change our conduct or change our investments patterns unless you tell us to. And I understand that from their point of view. They're not the Government of the United States. They're not trying to set foreign policy. I really do get that.

I don't attack firms like that for making investments that are legal. I mean if the government doesn't like it, make it illegal and they won't do it. But that's what she said suggests that disclosure is -- and I'm for that, too, because we need to know what's happening. That isn't going to work. That they'll say okay, they disclosed it. We're going to continue making the investments.

DR. LAFOND: I think you have a challenge though I mean in understanding something particularly like the indexes and what the index providers are doing, in that ultimately they have a challenge with the amount of capital they're trying to allocate into someplace like emerging markets relative to the limited supply of securities that are there.

And the reality is, when you look at China, China is one of the largest equity markets in the world. And China, being an emerging market, of course it's going to represent a large weight in that index. You can't take China out of the index, just like you can't take Korea out of that index and expect that money to somehow fit into Turkey.

And so again, I think it goes back to when you look at like whether it be a policy benchmark or whether it be what an index provider is doing, most of those index providers are looking at things like market capital liquidity of certain segments of the markets and saying this is a representative index.

Now, what is interesting when we look at this is that there is a large precedent from a variety of institutions and funds to pursue exclusion lists. And whether those exclusion lists include things like tobacco or weapons or other features, that's a very common occurrence and one of the kind of more common applications of, quote unquote, like ESG-based investing.

And again, I go back to disclosure. By providing more information there, I think you have more effective tools to do that.

DR. LAFOND: Okay. With the Chair's permission --

COMMISSIONER BOROCHOFF: Yes. Absolutely. Go ahead, Ms. Tolle.

MS. TOLLE: Thank you. So regarding ESG and the exclusions -- so emerging markets' ESG funds do have -- again, they have to follow the parent index. So those parent indexes set the standards. And so emerging markets ESG funds also have 40 percent in China. They have no alcohol, tobacco, gambling or porn. But they have 40 percent in a country that is committing genocide.

So, that is kind of the farce of ESG, and insiders in the industry all know it was kind of a joke at best. And at worst, it's deceptive, because you're claiming to do what's best for the world, what's best for investors, when actually you're still just following the parent index. You're hugging the index and calling it ESG because you can charge more fees on top of that.

The other thing that I would mention is that -- yeah. Yeah, our role here in the market is not to set rules, but we can do what we do -- for example, I can have a company that is freedom-weighted because I live in the United States under the rule of law of the United States. Because of you guys protecting that freedom that I have through our rule of law, I can do this.

I can't do this if I was in Hong Kong. I would be violating national security law, and I would be in jail right now. So, you guys have absolutely a role there to draw those boundaries and protect our freedoms. So, I don't see that as government intervention in free market. I see that as government protecting our capital markets from becoming a fundraising venue for foreign powers. And it's absolutely being used that way right now.

There's an article that I can also attach to my revised written testimony that can tell you about how the Chinese government coerced MSCI to add A shares a couple of years ago. And so now they're in the process of quadrupling their A shares exposure. Now, granted, I will give them credit that FTSE already did this before they did.

So, you know, the Chinese government, after blaming MSCI, using them as a scapegoat for the crash in 2016 and '17, now they have been coerced by the same government to add more A shares. So, we are not the only ones setting the rules here. If we don't to do it, other governments are intruding.

COMMISSIONER TALENT: Mr. Chairman, you've been very indulgent. Thank you.

COMMISSIONER BOROCHOFF: Thank you very, very much.

Commissioner Scissors?

COMMISSIONER SCISSORS: I have a lot of questions, so hopefully there's a second round. But I will start with Nazak.

And I want to impose on your -- again on your broader experience. I may be thinking about this too narrowly, but it's from working with members of Congress and their staff. They think about sectors when they write legislation. So, in this hearing, we're supposed to think about what sectors should we look at to possibly limit investment? Maybe not. Certainly not a lot of sectors, but some sectors.

When you were at Commerce, you were thinking about how to possibly limit exports of advanced technology or, you know, how to think about supply chains. So let me give you an example of what -- the question I'm asking. Last month's supply chain EO noted chips. It noted batteries. It noted active pharmaceutical ingredients. Those are not emerging technologies. Right?

So, the sectors in the supply chain EO review are very different than the sectors in the export control list. Okay, we know that. In ECRA, where does investment fit? Where would you locate investment in that spectrum? Is it like well, really, we need to starve the emerging technologies here of money? And then we have to go through the whole thing about defining emerging technologies, as you talked about. Or is it closer to supply chains? We don't want to put money into supply chains where China has become more competitive and we become dependent -- more dependent on them with regard to batteries.

So I'd like you to help me with, given your broad view, how to locate the critical investment sectors compared to critical supply chain sectors and emerging technologies and whatever language you want to use. But you get the idea. There are three different categories here.

MS. NIKAKHTAR: Yeah. So that's an excellent question, and I was actually just thinking about this the other day and talking to somebody about this. The supply chain -- so if I were to prioritize, if I were sort of the President -- and I can't because I wasn't born in this country. But kidding aside, if I were to sort of develop the strategy, I think the executive order on supply chains is the biggest emergency right now because we only have a few years.

We have been terrible in this country of gatekeepers of technology flowing to China. Because our technology has been flowing to China pretty freely, China has sort of developed, or is close to developing, indigenizing semiconductor technology in China, and in many sectors has kind of raced ahead.

So, the biggest emergency right now is, once China achieves semiconductor parity, it has -- which is only four to five years away -- then China has the ability to withhold what we need in terms of critical minerals, rare earths, and then battery cells. So I think in terms of the biggest emergency right now, I think the Administration is moving forward in the right direction.

Let's solve this semiconductor supply chain. We're not going to keep China from having semiconductor parity, but maybe if we actually exercise the right export controls -- and we can talk about that if you want to know, want to talk about which ones the right controls are. If we exercise the right export controls, we can maybe buy ourselves a few more years until we figure out how to have access to rare earths and battery cells because, golly, those are the items we need for national security, and our defense capabilities will be crippled without those.

So, tackle that first, and then let's look at emerging technologies. They're still emerging, and frankly those emerging technologies are going to be of no good to us if we can't get rare earths and if we can't get battery cells. So now looking at emerging technologies, we definitely do, as we were talking about -- and I think, Derek, you posed the question earlier, what are the technologies that we need to really look into in this spectrum of emerging technologies? Biotechnology, AI, position navigation and timing technology, microprocessor technology, advanced computing, data analytics, quantum -- the list goes on.

So the government actually has that list of what the critical sectors are for emerging technologies. The only problem, as we talked about, was how they want to go about imposing controls. Do they want to drill down further and get into the minutiae, or do you want to actually just proceed and impose controls on categories of technologies and then limit the regulatory impact on industries by then targeting the foreign adversaries?

COMMISSIONER SCISSORS: Thank you. That was very helpful for me. I'm going to jam one more question, but it's very simple. It's for Ms. Tolle.

I understand and applaud your use of freedom-weighting, but if you could make the index funds that you've referred to add a more traditional financial criteria to not just heavily emphasizing market cap and the presumed liquidity in those markets, what would you add?

You get one more traditional financial criteria. And you can say, A index funds, you need to use this one in addition to market cap. Do you have any ideas?

MS. TOLLE: Okay. As you mentioned, we did kind of solve a problem by using freedom-weighting, which had six variables. Maybe you can pick and choose some of those variables, like transparency, rule of law, private property rights, which goes alongside the government's -- to join private markets and so forth.

So -- opacity of ownership, which has been mentioned on this panel before. But something that's measurable and, you know, quantitative. In any event, there's a quantitative value you can use in indexing. So if the United States had some guidance on which countries quantitatively meet certain guidelines, then that would be useful. So, anything of that sort. Does that answer your question?

COMMISSIONER SCISSORS: I mean, I don't want to put words in your mouth, but what's something -- you know, transparency is connected to freedom. Transparency is a financial indicator. Would something connected to transparency be a reasonable answer to my question? And you can pick --

MS. TOLLE: Yeah. I mean, that's one. That's one thing that you could use. There's, as I said, six different quantitative metrics that we use. So, there's a lot that you can pick and choose them.

COMMISSIONER SCISSORS: Okay.

(Simultaneous speaking.)

MS. TOLLE: -- don't have to use the whole thing because we want that third-party objectivity. But yeah, there's that. Absolutely there's human freedom, personal and economic freedom. So you can use things like, how many journalists were killed? How many, you know, wars and terrorism acts were in this country? I mean, there's all kinds of metrics you can use. And I can talk to you offline about that as well.

COMMISSIONER SCISSORS: Okay. Thank you.

COMMISSIONER BOROCHOFF: Thank you all.

And Commissioner Kamphausen?

COMMISSIONER KAMPHAUSEN: Thank you all for being here today and for helping us have such a lively last panel of the day. It's been a long day, and we've had a lot to learn. I'd like to follow up a little bit on what Senator Talent was talking about a few minutes ago in the discussion of exclusion risks.

Dr. LaFond, you introduced the topic. I've looked again; I didn't see it referred to in your testimony. So, can you educate me and those who may not know, in a very basic way, what exclusion lists are. And then I'll have a follow-up.

DR. LAFOND: Yeah. The basic feature of exclusion lists is that, you know, they're more typical within a lot of the European assets. They provide you with a list of firms that are not permissible for investment. Typically, that is tobacco, alcohol, and weapons. Those lists are also built based off of some materiality thresholds, typically, such that someone who produces bolts that might go into assault rifles, if those bolts are -- you know, if that's a small portion of the business, that doesn't -- then that firm wouldn't be included.

COMMISSIONER KAMPHAUSEN: Okay. Who develops the exclusions list?

DR. LAFOND: There's -- a variety of folks who develop them. Typically, they come from the investors. Some of the most, I would call, vigorous exclusion lists you'll find related to some of the UCITS funds and particularly out of some of the Nordic countries.

Also, there's a variety of exclusion lists that you see coming out of religious-based organizations for the management of their assets. But they're primarily developed by the investors themselves.

COMMISSIONER KAMPHAUSEN: And that, then, leads to my real question --

MS. TOLLE: I can kind of --

COMMISSIONER KAMPHAUSEN: Go ahead.

MS. TOLLE: I was going to say the Norges Blacklist is a good example of that, from the Sovereign Wealth Fund in Norway.

COMMISSIONER KAMPHAUSEN: So, at a very superficial level -- maybe you can disabuse me of this notion -- it sounds like if the professionals develop the list, it's okay. But if the government provides instructions, it has to take extra care to not somehow infringe on the ability of the professionals to generate the kind of return that their clients might expect of them.

Is that a -- Dr. LaFond, is that an unfair characterization?

DR. LAFOND: I would say yes, in the sense that the -- I'll go back to there's a variety of investments that the government already prohibits, particularly if you look at a variety of firms in Russia and things like this.

Now, where I think we're challenged as an investment community is when we don't understand the criteria for the exclusions and the clear identification. And you can think about some of the examples in the last panel of just trying to identify -- if you exclude the U.S., the name in English, trying to identify the Chinese firm or the various kind of related entities in China that would be restricted on that, and difficulties just knocking names.

And so I think from an investment community's perspective, I would advocate the nice thing about the exclusion lists we're discussing is that they are very well identified, and they do come from your investors or other folks. And the criteria by which firms go onto that exclusion list is very well understood.

With the recent actions related to certain Chinese entities, there is still, I would say, widespread confusion as to what the actual considerations that went into that, and also challenges, quite frankly, in just mapping the main entities and related entities related to that.

COMMISSIONER KAMPHAUSEN: That makes sense. It suggests --

MS. TOLLE: Yeah. I would --

COMMISSIONER KAMPHAUSEN: Hold on.

It suggests that there's really a language issue, right? It's not the language of the country, but it's the language of a profession. And so, what I hear you saying, and I think it's a fair critique, is the language that the government uses, its style, the expectations of what it wants to get accomplished, are not always readily transferable in useful ways for the professionals who maybe might have done -- tried to accomplish the similar sorts of things but using different language to accomplish that.

DR. LAFOND: I think that's a fair point. I would also say that the assets that are managed relating to exclusion lists are still a small fraction of the assets managed under more general portfolios. And, ultimately, the difference between the -- it's the investors' -- the end investors' preference whether they want to pursue an exclusion-based strategy or a broader-based strategy.

COMMISSIONER KAMPHAUSEN: Right. Thank you very much.

MS. TOLLE: So, I have a couple of points to add to that, if I may.

COMMISSIONER BOROCHOFF: You can. You can --

(Simultaneous speaking.)

COMMISSIONER BOROCHOFF: -- go right ahead.

MS. TOLLE: Okay. So, the first one is that, like Norges Bank, those are government investors. So, these are government entities that are investors, and we have the same here. All of our pensions that are public pensions are government pensions for our public. So that can blur the line between government and investors like retail investors.

So, the other thing, I agree with him that clarity is needed, and if you have clarity in your exclusions, then we will absolutely follow them. The finance industry is very good at following compliance rules. But if there's no clarity, we will absolutely find loopholes.

MS. NIKAKHTAR: And I just wanted to add -- sorry, just one more point is we've really got to think about exclusion lists where they work in market economies and nonmarket economies. And I would probably posit that when you're dealing with exclusion lists in nonmarket economies, the economy is fungible. It's controlled by the central government in coordination with the provincial governments.

And nonmarket economies do not behave rationally like market economies do. So we need to be very careful that we do not impute the same tools that we would use for a market economy to a nonmarket economy, again, because nonmarket economies are simply just not rational actors.

COMMISSIONER BOROCHOFF: Good point. Thank you.

Commissioner Goodwin?

I don't see him.

COMMISSIONER FIEDLER: I don't think he's here.

COMMISSIONER BOROCHOFF: He's not on the list.

Co-Chair Fiedler?

COMMISSIONER FIEDLER: So, apropos the last conversation -- and I'll try not to be so cynical about it. But I cannot conceive of U.S. investors coming up with an exclusion list for China when they are already unwilling to condemn what's going on in Xinjiang or what's going on in Hong Kong for fear of retaliation. Why in the world would Goldman Sachs come up with a list of companies not to invest in? I can't see any role here for that list except from the government.

MS. TOLLE: I agree with that 200 percent. I can send you an additional article in my testimony that I talk about how in the finance industry -- (audio interference) -- themselves.

COMMISSIONER FIEDLER: I mean, I can make an argument that Hikvision -- investing in Hikvision at the venture stage was recognition that China was a surveillance state, and if they developed facial recognition on scale, that you could make a lot of money because the government would implement it.

So, you know, the China situation, I believe, is very different from every other country that we're encountering. Let me go back to an earlier discussion today. Some of the panelists raised the concept of reverse CFIUS.

And, Nazak, I know that you were the CFIUS lead for Commerce. And so, we deal with trade through CFIUS and investment incoming. And it seems to me now we're just asking it to have one additional burden, which is to look at outgoing money with the recognition that it presents national security concerns.

Is that the functioning process that we can work around/work with to start with?

MS. NIKAKHTAR: So yeah. Thank you for that question.

So, you know, I read an article about last week that Senator Casey had proposed some type of outbound investment screen for supply chains. Right now, obviously the reason we're talking about all this is just outbound investment is going without screening.

And understanding the risks posed by sort of investment -- and China specifically because the line between the military and commercial sector has been blurred, plus the fact that so much of the innovations that fuel military capabilities come from the commercial sectors -- just sort of as a policy standpoint, I think that makes sense.

I think that rather than sort of trying to regulate everything, what the government can do is, again, look at strategic industries and then maybe look at sort of high-threat actors and then review transactions with policies of denials or presumption of denials for the most risky behavior. And that way, at least industry and the financial market has some clarity and transparency.

But here's the word of caution. What we are trying to do in the government is solve these problems by more regulations and by more imposition of restrictions on ourselves and more work and more burden. And so when -- the analogy I use is we're playing a Whack-A-Mole game, and we've got two hands and China's got 100 tentacles.

And at some point -- when should we stop imposing so many restrictions on, or so much burden on ourselves? Because we, frankly, are a small government. And when should we just say, this is the line I'm going to draw? And I'm not going to prohibit this, and I'm not going to spend time as a government by doing analysis of this because I already know it's a risk. I already know it's a problem. And I'm not going to waste any time with it.

And I think that's the realization that at least the U.S. Government needs to come to, which is to say -- and Congress, too, because there's more legislation requiring the government to do more and more. And at what point are we not being effective because we're constantly trying to play catchup? We're trying to solve a problem that we'll never have full visibility to solve.

And again, going back to that Whack-a-Mole analogy where we've got two arms, China's got 100 tentacles, who do we think is going to win? So, while on the merits, I think the proposal is an interesting one, and it's certainly something that hasn't been done before. And there's -- we're talking about merits today of why a proposal like that would make sense.

The flip side of the argument is how much more burden are we going to put on the U.S. Government? Plus, when we increase our burden, our ability to determine facts and do a deep dive, to identify those national security risks, becomes harder and harder.

Doing CFIUS, it was so hard to peel back the layers of ultimate beneficial owners and assess all the risks. Sometimes, I don't even think we had full visibility into what's going on in China to fully evaluate the risks, compounding that with another review mechanism. Maybe it's time just to say, this is where we draw the red line, and we're just not going to cross it.

COMMISSIONER FIEDLER: Thank you.

Any other comments on that?

Okay. I'm done.

COMMISSIONER BOROCHOFF: Vice Chairman Cleveland?

VICE CHAIRMAN CLEVELAND: Thank you all for appearing. Important and useful.

I just have one question, and then I'm going to yield the rest of my time to Derek. Who regulates the global indices like MSCI and FTSE?

MS. TOLLE: I'm scared to answer this, but no one regulates the indices. And I don't want to bring that to your attention because I am an index provider, so this is against my own interest that I'm testifying here. No one regulates us, because we are not under FINRA or -- or, actually, you know what?

If we have a product -- like we are also an ETF sponsor -- then that ETF is regulated, and the advisor on that ETF is regulated, like the issuer. So, in other words, iShares is regulated --

(Simultaneous speaking.)

VICE CHAIRMAN CLEVELAND: By the SEC.

MS. TOLLE: Yeah.

VICE CHAIRMAN CLEVELAND: But there's no formal --

MS. TOLLE: MSCI is not. Does that make sense?

VICE CHAIRMAN CLEVELAND: Yes.

MS. TOLLE: So, we have a product. Our ETF is regulated. The index that it's tracking that sets the standard is not.

VICE CHAIRMAN CLEVELAND: All right. I'll have some questions for you, for the record, Mr. LaFond, on standards of materiality because I wasn't quite sure I understood it here.

But, Derek, over to you. Or back to you. You can have the rest of my time.

COMMISSIONER SCISSORS: Thanks very much.

I have a -- and I don't want to think that I'm wasting everyone's time, but I have a boring data question, but the data itself is not boring -- are not boring.

Nazak -- and I may have gotten this wrong after 13 witnesses -- you gave -- and I usually have the biggest numbers for anything bad involving China. It's like my job is to create huge numbers. But you gave a number for U.S. public and private equity investment in Chinese and Hong Kong companies. And I have written down -- and I found it, in one version of the testimony, is $2.3 trillion dollars. Whoa. $500 billion in biotech, $220 billion in AI.

Can you source that for us? Because one of the things that's going on in this hearing is we've been told in specific contexts -- no one's talked about a really big aggregate figure -- there isn't enough money. It doesn't really matter if we stop; it won't stop the Chinese. Where did that come from?

MS. NIKAKHTAR: Yeah. So, I knew you were going to ask that, Commissioner Scissors. So, I was prepared.

So one of the last things we did at the Commerce Department is we actually pulled a lot of publicly available sources, and we found a number that we were able to stack together that actually -- that figure represents, you know, equity positions in Hong Kong and Chinese domiciled entities, the market value at the end of 2020, but for the investments that have happened since 1992 to 2020, right? The market value as of 2020.

And it also includes U.S. investments through global exchanges and also private equity, to the extent that entities like Bloomberg had that data. So, I am happy to sort of share the information with you, the database, and have the Commission check it yourself or maybe aggregate more data.

But I should underscore the limitations are that we only have what is publicly available and what some companies or institutions want to put out there. There has to be a more formal mechanism to track these kinds of investments and where they're going.

So, we need to do better, but in the meantime, we have these snapshots, like I said, and I'm happy to sort of, give you sort of all of the data you need in case the Commission wants to re-create it. And it's an incredible database because you can cut and sort and look at more sectors and more companies where the money is going.

You're on mute, Commissioner.

COMMISSIONER SCISSORS: I said I definitely want that, and I might share it with the Commission if they're good. Thank you.

Question for Dr. LaFond. We talked about this before, and I want to stick to time, so I'll just be really concise. And people have brought this up. You've emphasized disclosure. Will more disclosure actually change behavior in a substantial fashion? And if so, why?

DR. LAFOND: You know, when you look at -- yeah. I think the potential for disclosure, just based on the effects we've seen from prior literature and prior academic research, not specifically on the topic of national security -- but how disclosure has changed firms' behavior, whether that be treatments related to compensation policies and other issues.

And I think what we're looking at here -- I mean, in many markets, we see disclosures of things like sales to the government, more adequate or more in-depth descriptions of certain types of businesses, and providing that additional information so that you could more closely tie into how much firms' sales are to various -- you know, the state government, local governments. So, more specifics around some of the business activities that they're engaged in.

I do think from an investor perspective that information -- we would deem that to be quite material and have the potential to very much influence of some of our decisions.

COMMISSIONER SCISSORS: All right. Thank you, Robin.

COMMISSIONER BOROCHOFF: Go ahead, Ms. Tolle.

MS. TOLLE: Okay. So, on that point, if the disclosure is provided by individual companies in a country without rule of law, then I don't know how much that's worth as far as how reliable it is.

COMMISSIONER BOROCHOFF: Thank you.

I have a question for you, Ms. Tolle, from your written testimony. This is just because I don't know, and I want to understand what you're recommending from a policy viewpoint.

You said that we could incentivize allocators, especially federal and state pensions and retirement plans, to use indexers and asset managers who consider these risks for federal and state plans just like we do for ESG or women/minority-owned businesses.

What specifically do we do for ESG and women/minority-owned businesses that could be transferred as an incentive?

MS. TOLLE: Yeah. So, pensions that are public pensions, like CalPERS, CalSTRS, Texas Teachers, things like that, have incentive to use women- and minority-owned businesses. I don't know where the incentive comes from, but there is that incentive.

The TRS -- or sorry, not the TRS, but the government pension that was kind of getting prohibited from using --

(Simultaneous speaking.)

COMMISSIONER WESSEL: TSP.

MS. TOLLE: Yes. The TSP. Thank you -- only uses iShares products. They cannot use others. So, I don't know that that's a government incentive or if that's a -- probably not. It's probably just a tradition.

But if some of these -- because some of these big players are so large, and there are benefits to being that large, like cost of benefits and things like that, that there is no way for anyone with an alternative solution, like us to be able to make headway.

COMMISSIONER BOROCHOFF: So there --

MS. TOLLE: We are here --

COMMISSIONER BOROCHOFF: I apologize. Please finish.

MS. TOLLE: Yeah. Sorry. So, this is just -- that was a suggestion to incentivize, kind of, even just government plans to think about these types of issues and use these types of metrics and consider them.

So, for example, the U.N. has the signatories, right? They're making people consider ESG. But, again, ESG itself is not enough because that's a company-level ESG and not considering the country-level metrics. So, the difference is company level versus country level. We're dealing with -- things that we're talking about today are country-level things. These are things only governments have control over.

A company operating in China cannot tell the government what to do. So, these are country-level metrics that are not measured by ESG. I mean, by ESG standards self-reported by companies, China is the world leader in ESG, and they are coming out and saying that. So that is being promoted around the investment space right now. I get emails every day in my inbox to that effect.

So yeah. I just think that if there's a way for us to kind of promote this kind of thinking around these types of metrics, that would be good.

COMMISSIONER BOROCHOFF: So, you're not suggesting, necessarily, an incentive. I think what you're suggesting is a requirement that --

MS. TOLLE: I'm actually -- the entire policy portion of my written testimony is going away in my revised version because I'm not a policymaker, and I realize that. So I'm going to leave that to you guys. But the incentives, I don't know where they come from currently.

COMMISSIONER BOROCHOFF: Okay. I didn't either, and that's why I asked.

MS. TOLLE: Yeah. Sorry.

CHAIRMAN BARTHOLOMEW: Bob, we can't hear you.

COMMISSIONER BOROCHOFF: I said I will yield the rest of my time to Chairman Bartholomew.

CHAIRMAN BARTHOLOMEW: Thanks very much.

Very interesting testimony. I feel, in a lot of ways, that Ms. Tolle is trying to do something sort of in between some of what Nazak talked about and Dr. LaFond talked about, that you're trying to do a private-sector response to some of the concerns that are raised.

I also wanted to commend Nazak for acknowledging/noting particularly the difference between market economies and nonmarket economies, because I think we do the policy debate a huge disservice when we pretend that China is just a capitalist society. It's not, and I think that we need to keep that in mind.

Dr. LaFond, a couple of questions. One is sort of a comment or clearing something up. I noticed in your written testimony what you're saying about reducing the potential significance of U.S. capital in foreign companies that pose a potential threat to national security. Restricting U.S. investment will likely have minimal impact on the underlying behavior of those firms.

I don't think that the goal here or the belief here is that we would stop NORINCO from doing missiles, for example. But the issue is whether the United States, U.S. citizens, should be funding companies that very well could turn out to be critical in any sort of conflict that would be going on between China and the U.S.

So, I feel like the premise there is wrong, or it's different. I just interpret it differently. But particularly, I'm really interested in the fact that your degrees are in accounting. And what I think I heard you say is something that somebody earlier today said, sort of when the issue of the different accounting standards came up, is they just do things differently.

And I'm just really struggling with what the significance of “they do things differently” means in the context where people don't have access to -- there's no freedom of information. There isn't freedom of the press. You know, we don't have access to the audit work papers.

How can you move forward or how do you move forward with confidence in the information that's being provided by the companies that you are doing investments in?

DR. LAFOND: So, I'd start off here on a couple of different things, and just to be clear, I also sit on an advisory committee for the FASB. You have to look at -- accounting standards vary across the world, and with the FSB and the ISB being kind of the two prominent ones.

But even if we take an example like the ISB, where many firms in different countries use IFRS, I think the best way to think about that is that, effectively, what the ISB is doing is setting a speed limit for each country. Each country, each exchange, each auditor, though, is kind of a different cop.

And so, in one country, like say Germany, you might get pulled over for exceeding the speed limit by two kilometers per hour. In another country, you might have to exceed the speed limit by 60 kilometers an hour to get pulled over, and the point of that being is that even when we have common accounting standards, the implementation of those standards does vary quite a bit around the world.

Now, when we look at China, China has its own set of accounting standards that have a lot of similarities to both IFRS and to U.S. GAAP. China also, in their -- they are audited. Now, the government has not released the work papers to be reviewed by the PCAOB, but that's not to say that the accounting information within China is not audited. It is audited to a different set of standards.

And I think in particular, when we're talking about large firms that have big proportions of U.S. investors' allocations, index funds' allocations, there is a lot of scrutiny applied to those numbers. And those numbers are no different in their quality, and their disclosures are no different than what we would see from other emerging markets.

Now, when you go down the cap scale there's a different set of standards and a different degree of scrutiny applied. And so you do see, I think, lower quality. But for the biggest portions of the market cap, I would say the Chinese accounting -- the Chinese information, the standards are very similar to what we see in other emerging markets.

CHAIRMAN BARTHOLOMEW: So when do we no longer consider China an emerging market and giving them sort of the benefit of different standards because emerging markets are treated differently?

DR. LAFOND: I mean, that ultimately comes down to the index providers are the ones that classify emerging and developed. Most of that comes down to different features -- yeah, about the --

MS. TOLLE: Yeah. So --

(Simultaneous speaking.)

DR. LAFOND: -- free flow of capital and things like that.

CHAIRMAN BARTHOLOMEW: There isn't, right? I mean, anyway, sorry. It's just, in some ways, it feels so rigged, right? That you don't have to hold them to certain standards if you continue to consider China an emerging market. But if it's not meeting the basic standards that it should be, then -- you know? I don't know. I guess just --

(Simultaneous speaking.)

DR. LAFOND: So -- but I think there's a couple things that are, first off, I think, really important to understand about not just China in particular, but investments in emerging markets.

As soon as you step outside of the U.S., the information is different. And, for example, different, though, in some cases actually means better. China, for example, has mandatory management guidance disclosures. So China was one of -- when COVID hit and a variety of the firms in the developed market stopped providing guidance, the Chinese firms continued to provide guidance because they have rules relating to that.

I think that's just one example of -- the information is different. But for the large firms -- and again, one of the prior panels made this point. Particularly for those that have direct listings in the U.S., we actually get more and better information because they're listed in the U.S. than if they were just listed on the Chinese stock -- on Shanghai or Shenzhen. And so we're effectively bringing them closer to developed market standards.

MS. TOLLE: So I -- if I may, I agree with Ryan that MSCI and FTSE, or the index providers, decide the classification of emerging versus developed. I disagree with what he said about the different auditing standards and how they're similar to other emerging markets.

Markets like Taiwan, South Korea, Chile, even Poland, have, like, mountains' times better auditing standards and transparency than China. China actually has a law that says you cannot share your audits with people outside of China. So, in other words, it's a state secret. It cannot be shared.

That is a level of opacity that is unprecedented, even in emerging markets --

(Simultaneous speaking.)

DR. LAFOND: So -- but let's be clear on what that law -- that is about the audit work papers, particularly that the PCAOB is actually investigating. They still have an audit opinion, and in most cases for the large firms, the audited opinion is signed off by many of the largest audit firms in the world.

MS. TOLLE: I don't care who's signing off on it.

(Simultaneous speaking.)

MS. TOLLE: -- checking a box. They're checking a box. They're not responsible for the actual numbers.

COMMISSIONER BOROCHOFF: I think we're going to wrap this up. And I think that any Commissioners that would like to send a question to the witnesses and you'd like to respond for the record, we'd really appreciate that, particularly on anything that you feel you didn't get to say.

And, with that, I think we're going to say thank you to everyone for a great day, and to my co-Chair, Jeff Fiedler, who I know has something to say.

COMMISSIONER FIEDLER: No, I just want to thank the staff who put together this hearing with us and did a lot of work in talking to each of our witnesses. I think they did a very good job. Thank you.

COMMISSIONER BOROCHOFF: Phenomenal. I want to ask you all to mark your calendars for the next hearing on China's evolving approach to fostering economic growth and innovation, which will be on April 15th.

Thanks to everyone, and we are now adjourned.

(Whereupon, the above-entitled matter went off the record at 5:04 p.m.)

STATEMENT FOR THE RECORD

STATEMENT OF CHRISTOPHER IACOVELLA, CEO, AMERICAN SECURITIES ASSOCIATION

Written Testimony Before the U.S.-China Economic and Security Review Commission
Hearing Entitled
"U.S. Investment in China's Capital Markets and Military Industrial Complex"
March 19th, 2021

Christopher A. Iacovella
CEO, American Securities Association

Chairman Bartholomew, Vice Chairman Cleveland, and members of the U.S.-China Economic and Security Review Commission (Commission): Thank you for the opportunity to provide written testimony for the Commission's March 19th hearing entitled "U.S. Investment in China's Capital Markets and Military Industrial Complex." This timely hearing will examine several issues critical to America's national security and the protection of mom-and-pop investors and retirement savers in the United States.

For years, the American Securities Association (ASA)[1] has been the only financial trade association advocating to end the Chinese Communist Party's fraud on our capital markets and the harm it has caused America's working families. We are proud to have partnered with members on both sides of the aisle on the *Holding Foreign Companies Accountable Act*, a bill which was recently enacted into law after passing both chambers of Congress unanimously. We look forward to continuing to partner with policymakers in a bipartisan manner to further safeguard America's national and economic security interests.

Introduction

History suggests that the free flow of global capital leads to more sustainable investment, helps lift people out of poverty, and brings transparency that enhances the rule of law. The free flow of capital across borders also serves to strengthen relations among nations, which furthers international peace and stability. That said, it is fair to ask whether an authoritarian regime that aggressively and coercively undermines the norms of the open international system adhered to by free societies should continue to reap the economic and financial benefits of accessing it.

As China's great power competition with America intensifies, financial markets have become a frontline battleground. The Chinese Communist Party has used deceptive statecraft to methodically exploit the U.S. capital markets. This has helped fund China's rise while exacting

[1] The ASA is a trade association that represents the retail and institutional capital markets interests of regional financial services firms who provide Main Street businesses with access to capital and advise hardworking Americans how to create and preserve wealth. The ASA's mission is to promote trust and confidence among investors, facilitate capital formation, and support efficient and competitively balanced capital markets. This mission advances financial independence, stimulates job creation, and increases prosperity. The ASA has a geographically diverse membership of almost one hundred members that spans the Heartland, Southwest, Southeast, Atlantic, and Pacific Northwest regions of the United States.

heavy costs on American investors, the U.S. economy, and the integrity of the U.S. capital markets. This outcome has been a win-win for the Chinese Communist Party.

Thus, the paramount question before this Commission is: Should the Chinese Communist Party continue to access the U.S. capital markets to fund a military, cyber, and geopolitical strategy that undermines the economic and national security of the United States and establishes China as the world's preeminent power? [2]

Chinese Bond Funds and Indexes

Registered investment funds that hold Chinese government bonds or track an index that includes them facilitate a transfer of savings from America's working families, military service members, pensioners, and retirees directly to the Chinese Communist Party. Since modern day China is run as a "Party-State" and funds that flow to the CCP cannot be separated from Chinese industry, one can only assume that this money goes to underwrite everything the Chinese Communist Party touches.[3] This includes factories that use forced labor,[4] re-education camps for the Uyghurs,[5] the destruction of the environment,[6] the rise of its military,[7] and a cyber-army that relentlessly attacks the U.S. and other nations of the free world.[8]

The Commission should examine whether registered investment funds (i.e. mutual funds and exchange traded fund) that own these bonds or track an index that includes them should be available for sale in U.S. markets. As part of that analysis, the Commission should consider that two separate presidential administrations --one Democrat and one Republican-- in control of the U.S. government believe the Chinese Communist Party is committing 'crimes against humanity' and 'genocide' against its own people.[9]

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[2] https://www.whitehouse.gov/wp-content/uploads/2021/03/NSC-1v2.pdf. *Interim National Security Strategic Guidance*, March 2021, pg 8. "China has rapidly become more assertive. It is the only competitor potentially capable of combining its economic, diplomatic, military, and technological power to mount a sustained challenge to a stable and open international system."

[3] https://www.asiatimesfinancial.com/ccp-announces-plan-to-take-control-of-chinas-private-sector "President issues 'important instructions' to all regions to boost party control over private enterprise and rejuvenate the nation; all firms will need employees from the party to boost law abidance and moral standard".

[4] https://thehill.com/blogs/congress-blog/homeland-security/522443-countering-chinas-forced-labor-practices;

[5] https://www.bbc.com/news/world-asia-china-51697800; https://www.reuters.com/article/us-hikvision-usa-uighur/u-s-might-blacklist-chinas-hikvision-over-uighur-crackdown-source-idUSKCN1SS28U.

[6] *China's Engine of Environmental Collapse,* Richard Smith, Pluto Press, 2020.

[7] https://www.cnn.com/2020/10/29/asia/us-election-us-military-indo-pacific-intl-hnk-ml/index.html

[8] https://www.cnbc.com/2020/07/07/fbi-chief-slams-chinese-cyberattacks-against-us-hudson-institute.html; https://www.justice.gov/opa/pr/chinese-military-personnel-charged-computer-fraud-economic-espionage-and-wire-fraud-hacking.

[9] https://www.c-span.org/video/?509661-1/state-department-briefing&live Biden State Department Spokesman Ned Price: "The PRC also has committed crimes against humanity in Xinjiang against the Uyghurs, who, of course, are predominantly Muslim, and members of other ethnic and religious minority groups, and that includes imprisonment, torture, enforced sterilization, and persecution."; https://www.msn.com/en-au/news/other/pompeo-chinas-uighur-policy-perpetrating-genocide-and-crimes-against-humanity/ar-BB1cTU6k.

Given the importance many institutional investors place on environmental and social issues, one would expect them to begin to divest their portfolios of any security associated with an authoritarian regime.[10] Until that occurs, the Commission should investigate whether the Chinese Communist Party's access to the U.S. capital markets through these bond funds poses direct economic and national security threats to the United States.

Chinese Companies Registered in U.S. Markets

The ASA has been a canary in the coal mine alerting lawmakers, regulators, and investors about the risk of allowing opaque Chinese companies to be listed on U.S. stock exchanges or included in index funds.[11] Investors have no insight into whether these companies are growing, profitable, or losing money because the Chinese Communist Party regularly asserts a national security privilege to prevent routine audits from taking place.[12] This intentionally keeps investors in the dark and subjects them to a risk of fraud that is very real.[13]

From reverse mergers and stock indexes to single-stock listings, this fraud has been deliberate and pervasive.[14] Despite warnings from the U.S. Securities and Exchange Commission and the Public Company Accounting Oversight Board that Chinese companies involve a "substantially greater risk that disclosures will be incomplete or misleading and, in the event of investor harm, substantially less access to recourse,"[15] many of these firms are still listed on U.S. exchanges and remain a threat to Main Street investors.[16] Until more de-listings occur,[17] America's mom-and-pop investors, labor unions, pension funds, and retirement plans will continue to be exposed to fraudulent Chinese companies.[18]

This Commission should examine the pattern of fraud associated with Chinese companies dating back 2011 to determine whether it is a normal part of investment risk or a calculated tactic used to implement China's larger geopolitical strategy. Many believe it is the latter.[19]

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[10] https://www.institutionalinvestor.com/article/b1qs5j405m2qtf/How-the-World-s-Largest-Asset-Managers-Are-Finally-Taking-ESG-Seriously; *Interim National Security Strategic Guidance*, pg 20. "In many areas, China's leaders seek unfair advantages, behave aggressively and coercively, and undermine the rules and values at the heart of an open and stable international system."
[11] https://www.americansecurities.org/post/asa-sends-letter-to-sec-highlighting-risks-to-investors-from-chinese-companies
[12] https://pcaobus.org/International/Inspections/Pages/IssuerClientsWithoutAccess.aspx; https://foreignpolicy.com/2019/02/07/we-cant-tell-if-chinese-firms-work-for-the-party/ https://www.wsj.com/articles/sec-revives-fight-over-inability-to-inspect-chinese-auditors-of-alibaba-baidu-1544229843.
[13] https://www.forbes.com/sites/walterpavlo/2011/04/08/fraud-in-chinese-reverse-mergers-on-american-exchanges-and-were-surprised/?sh=29a878924f47.
[14] https://abcnews.go.com/Blotter/us-investors-lose-billions-alleged-chinese-stock-schemes/story?id=18164787; https://www.ft.com/content/78b0d934-6b27-11e9-80c7-60ee53e6681d.
[15] https://www.sec.gov/news/public-statement/emerging-market-investments-disclosure-reporting.
[16] https://www.nasdaq.com/articles/nyse-begins-move-to-delist-chinese-state-oil-producer-cnooc-2021-02-26.
[17] In December 2020, the President signed into law the Holding Foreign Companies Accountable Act, a bipartisan bill that was strongly supported by the ASA. The legislation would grant companies up to three years to allow their auditors to be inspected by the PCAOB, as required by the 2002 Sarbanes-Oxley Act. If companies failed to allow for such inspections within that period, then they would be de-listed from U.S. Exchanges.
[18] https://www.cnbc.com/2020/04/02/luckin-coffee-stock-plummets-after-investigation-finds-coo-fabricated-sales.html.
[19] https://www.forbes.com/sites/peterpham/2018/02/12/whats-chinas-secret-source-of-funding/?sh=61d625a8254b.

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The Passive Index Loophole

A regulatory loophole exists which allows passive index funds and index providers to direct American investor dollars into mainland Chinese companies by including them in international or emerging market indices. Inclusion in an index can lead to billions of dollars being steered into opaque Chinese businesses.[20]

Investors often have no idea that by investing in an index fund, they are sending their savings to Chinese companies that avoid basic disclosure, financial reporting, and governance standards or are controlled by the Chinese Communist Party.[21] Many of these Chinese companies, especially those listed on mainland Chinese exchanges, have turned out to be frauds.[22] Investors have no real understanding of how the governance of a Chinese company functions but one thing is clear: when the Chinese Communist Party wants to interfere in the company's business to force change, it does.[23]

As if ignoring these risks is not bad enough, index providers also include companies placed on the U.S. government Entity List and OFAC Sanctions List in their indexes. A company is generally placed on these lists if it is "acting contrary to the national security or foreign policy interests of the United States" or is a "threat to the national security, foreign policy or economy of the U.S." A reasonable person might ask 'how could an American investor invest in a company on an exchange or through an index if it is a violation of American law to do business with that company?' We hope the Commission recognizes the absurdity of this reality and would support a broad policy recommendation to prohibit any such company from trading in the U.S. capital markets.

In November 2020, President Trump did just that by issuing Executive Order 13959, "Addressing the Threat from Securities Investments that Finance Communist Chinese Military Companies." This Order de-listed and de-indexed 31 firms trading in U.S. markets that are owned or controlled by the Chinese military. The Biden Administration has affirmed this Order, which establishes it as a template for how to prevent the Chinese Communist Party from coercing U.S. investors into sending their savings to fund China's military and economic rise. The SEC should go further and strip these companies of their registration so they cannot bypass

[20] https://oxfordbusinessgroup.com/overview/indexed-growth-inclusion-global-indices-often-results-greater-flow-funds-capital-markets-it-just-one.
[21] https://pcaobus.org/oversight/international/denied-access-to-inspections; The PCAOB noted that it is unable to inspect the auditors of over 200 companies listed on exchanges in the United States or to determine who really controls them.
[22] https://www.reuters.com/article/us-china-stocks-regulation-analysis/chinese-firms-missing-6-billion-tests-regulators-resolve-idUSKCN1SN0OT; https://www.scmp.com/business/companies/article/3024084/why-kangmei-pharmaceutical-found-have-committed-one-chinas; https://finance.yahoo.com/news/one-theme-popping-among-chinese-154155487.html.
[23] https://www.cnn.com/2020/12/24/tech/alibaba-china-antitrust-investigation/index.html; https://www.asiatimesfinancial.com/ccp-announces-plan-to-take-control-of-chinas-private-sector.

the listing process and raise capital from unsuspecting American investors through the opaque 'over-the-counter' private market.

Index related issues require enhanced scrutiny because unregulated index providers can be subject to significant conflicts of interest when selecting index components.[24] The Commission should review the role index providers play in bringing Chinese companies to the American market and how their interactions with the Chinese Communist Party impact index inclusion or expansion decisions.

Recommendations

To end China's fraud on our markets, this Commission should recommend that Congress require the SEC to (1) terminate the 2013 Memorandum of Understanding;[25] (2) deregister every Chinese company that doesn't meet the same company-specific governance, disclosure, audit, and financial reporting standards as U.S. companies; (3) force index funds to remove and exchanges to delist any Chinese company that is on the OFAC sanctions list, the U.S. Department of Defense list of Communist Chinese military companies, or the U.S. Department of Commerce 'entity list'; (4) close the passive index loophole which allows index funds to steer American investor savings into opaque and financially questionable Chinese companies listed on mainland Chinese exchanges; and (5) clearly and publicly outline the legal redress or lack thereof that American investors can seek if they are harmed by registered Chinese companies.

We also suggest that policymakers implement the unanimously passed *Holding Foreign Companies Accountable Act* as written. Neither Congress nor the SEC should deviate from the three-year de-listing timeframe, as there is little discretion left to regulators to amend the provisions of the legislation.

The Commission should examine claims that American investors will simply buy Chinese companies in other markets if they are prohibited from buying them in the U.S.[26] Those making such claims conveniently forget that institutional investors at every level have a fiduciary obligation to those who entrust them with their savings.[27] This obligation requires institutional investors to conduct diligence on any company in which they invest. In China, thorough due diligence is impossible because the Chinese Communist Party won't allow it.[28] The Commission should weigh the cost of Chinese companies moving their listings from the U.S. to Hong Kong against the benefit of protecting American investors and the integrity of U.S. markets.

[24] https://www.wsj.com/articles/how-china-pressured-msci-to-add-its-market-to-major-benchmark-11549195201.
[25] https://www.shearman.com/-/media/Files/NewsInsights/Publications/2013/06/PCAOB-Announces-Agreement-With-China-On-Producti /Files/View-full-memo-PCAOB-Announces-Agreement-With-Ch /FileAttachment/PCAOB-Announces-Agreement-With-China-on-Producti .pdf.
[26] https://www.wsj.com/articles/china-has-one-powerful-friend-left-in-the-u-s-wall-street-11606924454.
[27] https://www.americansecurities.org/post/asa-letter-to-wsj-real-audits-for-chinese-firms-listed-in-the-u-s.
[28] https://foreignpolicy.com/2019/02/07/we-cant-tell-if-chinese-firms-work-for-the-party/.

It may also benefit the Commission to examine the types of legal, political, or reputational risks a U.S. company doing business with the Chinese Communist Party specifically, or in China generally, poses to its investors. At a minimum, it would be useful for American investors to understand the scope and potential cost of any legal liability that could arise from a U.S.-listed company doing business in China under U.S. law, international law, or otherwise.[29]

Conclusion

Twenty years ago, the consensus theory was that as China grew wealthier, it would become a responsible international stakeholder. Unfortunately, that theory never materialized. Today, Communist China's seeks to become the world's dominant superpower. To realize that goal, the Chinese Communist Party needs access to Western capital. Those who still believe in the consensus theory, are willing to facilitate that access because they can profit from it. They will continue to put their own financial interests over the economic and national security interests of the United States until it is no longer legal or profitable to do so.

Loopholes and exemptions have allowed the savings of American investors to fund Chinese companies that are outright frauds, arms of the Chinese Communist Party, or engaging in activities that are hostile to American interests for far too long.[30]

A strong bipartisan consensus in Washington has emerged that wants to end the Chinese Communist Party's exploitation of America's capital markets and her investors. This Commission can play an important role in recommending the policy changes necessary for Congress and the Administration to help move that consensus along.

I look forward to assisting this Commission in any way that will make the investment climate safer for American investors and promote the economic and national security of our country.

Sincerely,

Christopher A. Iacovella

Christopher A. Iacovella
Chief Executive Officer
American Securities Association

[29] https://www.justsecurity.org/74388/genocide-against-the-uyghurs-legal-grounds-for-the-united-states-bipartisan-genocide-determination/; https://www.washingtonexaminer.com/news/state-department-china-committing-uyghur-genocide-wont-say-if-ongoing; https://cja.org/what-we-do/litigation/legal-strategy/the-alien-tort-statute/.
[30] https://healthymarkets.org/archives/2101; https://www.americansecurities.org/post/why-are-american-investors-funding-chinese-fraud.

QUESTIONS FOR THE RECORD

RESPONSES FROM RYAN LAFOND, DEPUTY CHIEF INVESTMENT OFFICER, ALGERT GLOBAL

Questions for the Record: Hearing on "U.S. Investment in China's Capital Markets and Military Industrial Complex."

April 2, 2021

Submitted by Chairman Bartholomew and Vice Chairman Cleveland

- During the Q&A portion of your panel, you mentioned that while audit work papers for Chinese companies may not be available to the PCAOB, audit opinions are generally available. Could you please elaborate on who prepares these audit opinions, who has access to them, and what kind of information they may contain?
  - Audit reports are part of the publicly available financial statements filed with the regulator. These reports can be accessed through the exchange, company websites or various vendors. These reports contain the audit opinion, which is signed by the audit firm. In most instances, this is a local affiliate of a global firm (e.g. PWC, EY, KPMG)
- In your written testimony, you note that the asset management industry would welcome clearer guidance around issues such as materiality thresholds with respect to investment restrictions. In your view, what kinds of thresholds would be appropriate?
  - Guidance around what proportion of a firm's sales, for example, would put the firm at risk of restrictions would be helpful. Would, for example, any sales to the military put the firm at risk or would the firm be at risk only if the majority of its sales are to the military?

PUBLIC COMMENTS SUBMITTED FOR THE RECORD

Submitted via email by Alan Pan on March 4, 2021

Dear U.S.-China Economic and Security Review Commission,

This is a written statement for your Friday, March 19, 2021, 9:15 a.m hearing.

This is the Year of 2021, and the United States America stands ever more divided. Perhaps the largest turnout in American presidential elections in history, 155 million voters were split between Republicans and Democrats with 74 million votes casted for Donald Trump and 81 million for Joe Biden. From a March 4 Pew Research Survey, about half of respondents would work with China and the other half would rather compete or fight against China. Though, most seem to agree that "American" values such as liberty, justice, and equity should be propagated with strong institutional roots in China.

If we have learned anything in the past thirty years about our nation's people, it is that dollars speak. The rise of China's economy has been met with uneven development and growth in our country. GDP in the bearish state of California has about doubled since 1990, while our empire state of New York has only increased about 60%. GDP in George Washington's state has tripled, and Abraham Lincoln's state of Illinois hardly a quarter. China's GDP, from across the Pacific Ocean, has quadrupled.

It is understandable to be envious or jealous of the Pacific's economic rise while people of the Atlantic were spreading financial instruments and banking institutions across the high seas. I am sure people living on the West Coast were also envious or jealous of the Atlantic Triangular Trade which expanded the territory of European settlements over 1,000 times across the Americas and what we call today as Africa. Both oceans of the United States feel cheated, and that is normal to feel cheated while we are living in America. Being cheated is normal everyday occurrence of American life.

In order for the USA to understand economic and security issues in China, we must understand the economic and security issues in America. Your 2020 Report to Congress fails to provide on this. For example, much is mentioned about China's rural development, but the report fails to address the economic and security issues of America's rural areas. Or, the report mentions human rights, but fails to address how these human right problems affect US-China, the US, or even China's economic and security. If we had learned anything from Economics 101, it is that the economy is not a one-way street. The economy is two-way, with any US transaction to China is reciprocated with a transaction from China to the USA. And in presence of multinational organizations and globalization, the economy is multilateral and multilevel. In my opinion, the following recommendations are thus moot, and more harmful than productive to our US Congress than not.

The Commission's Key Recommendations

1. Congress adopt the principle of reciprocity as foundational in all legislation bearing on U.S.-China relations. ***We have our national economy, as well as state economies. So we should not consider state legislatures in the principle of reciprocity? So our US Congress practices legislation reciprocity with China while our individual states do not? How much of our economy does Congress control versus our individual state legislatures?***

2. Congress expand the authority of the Federal Trade Commission (FTC) to monitor and take foreign government subsidies into account in premerger notification processes. ***This recommendation advises on security, but what of the economy? What is the cost-benefit of tightening our economic regulations over attracting collaboration and investment? Hypothetically, couldn't China simply create a shell company like American corporations do in a third world country to operate on their behalf? Would conducting acquisitions and mergers feel more comfortable negotiating with a Chinese agent in Africa than the Chinese government agents themselves?***

3. Congress direct the U.S. Department of State to produce an annual report detailing China's actions in the United Nations and its subordinate agencies that subvert the principles and purposes of the United Nations. ***To what extent does the United Nations affect US-China economy and security? Doubtful!***

4. Congress hold hearings to consider the creation of an interagency executive Committee on Technical Standards that would be responsible for coordinating U.S. government policy and priorities on international standards. ***The United States of America is among the more freer markets in the industrial world. Wouldn't technical standards over policy and priorities create protectionist measures by increasing the difficulty non-Americans, or even poor Americans, could engage in international business and trade? Should we expect our billionaires or multimillionaires to extend the US economy in third-world countries, or even our neighboring countries in Canada and Mexico?***

5. Congress consider establishing a "Manhattan Project"-like effort to ensure that the U.S. public has access to safe and secure supplies of critical lifesaving and life-sustaining drugs and medical equipment, and to ensure that these supplies are available from domestic sources or, where necessary, trusted allies. ***In what part of our economy and security will this affect? Is this even an economy or security issue? How? Why not the Center of Disease Control or Department of Defense?***

6. Congress enact legislation establishing a China Economic Data Coordination Center (CEDCC) at the Bureau of Economic Analysis at the U.S. Department of Commerce. ***What about US-China economic data coordination center? Why not data on the intersectionality between US and China? Why only China?***

7. Congress direct the Administration, when sanctioning an entity in the People's Republic of China for actions contrary to the economic and national security interests of the United States or for violations of human rights, to also sanction the parent entity. ***What about state security? There exist more transactions between US and China that is not at the national level.***

8. Congress consider enacting legislation to make the Director of the American Institute in Taiwan a presidential nomination subject to the advice and consent of the United States Senate. ***Why not universities, research institutions, or think tanks in Taiwan? Why this one, specific organization that would do a better job than the Taiwanese government or research institutions?***

9. Congress amend the Immigration and Nationality Act to clarify that association with a foreign government's technology transfer programs may be considered grounds to deny a nonimmigrant visa if the foreign government in question is deemed a strategic competitor of the United States, or if the applicant has engaged in violations of U.S. laws relating to espionage, sabotage, or export controls. ***The United States of America has gained more from non-legal technology transfers than legal technology transfers. Why create opportunities to break rule of law? Why advise Congress to create loopholes?***

10. Congress direct the Administration to identify and remove barriers to receiving United States visas for Hong Kong residents attempting to exit Hong Kong for fear of political persecution. ***Could one expect economic and security repercussions in removing these barriers? For example, a Hong Kong official's cousin who embezzles millions of dollars from Hong Kong would be able to flee to the US from fear of political persecution under this visa proposal?***

Now, more than ever, we need to strengthen our national unity, rather than divide it. As our current president Joe Biden declared in his inaugural address, "My whole soul is in this: bringing America together, uniting our people, and uniting our nation". Please do better for the 2021 report than making irresponsible and reckless statements that further divide our nation. Misinformation, fake news, sensationalism, and click-baiting have been at historic highs. We need your commission's leadership and recommendations on US-China economics and security, not China's economics and security. This needs to be taken in consideration of all 50 states and territories, its interstates, foreign trading partners, physical alliances (not promissory) such as NATO and Five Eyes, and overall nation in terms of what and how the USA can enhance its economy and security against or with China.

Thank you for your consideration.

Alan J Pan, CPA

Beijing Normal University

Submitted via email by Jean Public on March 8, 2021.

china is our enemy. make no mistake about that i am not in favor of trade with china. we are being ripped off by trading nd buying from china when they do not buy in equal amounts from us. i believe we shoudl stop all trade from china. the crap they sell us cannot do us any good. this comment is for the pubic record. get mcconells wife out of having trade with china please. that also appears not to be good for america.l this comemtn is for the public record. please receipt.