



SYMPOSIUM ON BUILDING THE FINANCIAL SYSTEM OF THE 21ST CENTURY: AN AGENDA FOR CHINA AND THE UNITED STATES

June 5-7, 2019
Washington, DC

Final Report



the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 13.5 million, and the number of people aged 75 and over has increased from 4.5 million to 6.5 million (ONS 2002).

There is a growing awareness of the need to address the needs of older people, and the need to ensure that they are able to live independently and actively in their own homes.

The aim of this paper is to explore the needs of older people, and to discuss the implications for the design of information systems for older people.

The paper is organized as follows. Section 2 discusses the needs of older people, and Section 3 discusses the implications for the design of information systems for older people.

2. Needs

The needs of older people are complex and diverse, and are influenced by a number of factors, including age, health, and social circumstances.

Older people may have a range of needs, including the need for information, the need for support, and the need for a safe and secure environment.

The needs of older people are often overlooked, and it is important to ensure that their needs are taken into account when designing information systems for older people.

The following are some of the key needs of older people:

- **Information:** Older people need access to information that is relevant to their needs, and that is presented in a clear and easy-to-understand format.
- **Support:** Older people need support and assistance when using information systems, and this support should be provided in a way that is accessible and easy to use.
- **Safe and secure environment:** Older people need to feel safe and secure when using information systems, and this can be achieved by ensuring that the systems are secure and that their personal information is protected.

3. Design

The design of information systems for older people should take into account their needs, and should be designed to be accessible and easy to use.

There are a number of key design principles that should be followed when designing information systems for older people:

- **Accessibility:** Information systems should be designed to be accessible to older people, and this can be achieved by ensuring that the systems are easy to use and that the information is presented in a clear and easy-to-understand format.
- **Usability:** Information systems should be designed to be usable by older people, and this can be achieved by ensuring that the systems are intuitive and that the information is presented in a way that is easy to understand.
- **Security:** Information systems should be designed to be secure, and this can be achieved by ensuring that the systems are protected from unauthorized access and that the personal information of older people is protected.

4. Conclusion

The needs of older people are complex and diverse, and it is important to ensure that their needs are taken into account when designing information systems for older people.

The following are some of the key needs of older people: information, support, and a safe and secure environment.

The design of information systems for older people should take into account their needs, and should be designed to be accessible and easy to use.

There are a number of key design principles that should be followed when designing information systems for older people: accessibility, usability, and security.

It is important to ensure that the needs of older people are taken into account when designing information systems for older people, and that the systems are designed to be accessible and easy to use.

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Symposium on Building the Financial System of the Twenty-First Century: An Agenda for China and the United States

Washington, DC, June 5-7, 2019

The sixteenth annual China-U.S. Symposium was held at the J.W. Marriott Hotel in Washington, DC from June 5-7, 2019. Sessions addressed non-bank engagement in financial markets and financial product innovation, the state of U.S.-China relations and the implications for cross-border financial services, the rise in public and private debt in the U.S. and China, and institutionalization of Chinese capital markets and investment opportunities for retail investors. Although many participants expressed optimism about the prospects for continued financial liberalization and capital market development in China, they also expressed deep concerns about the potential damage to both economies if the ongoing trade conflicts between the two countries were to persist. They urged leaders to continue to work to promote fair and open market access to goods, services, and investment.

Session 1: Non-Bank Engagement in Financial Markets and Financial Product Innovation

In Session 1, participants discussed the role of non-banks in financial markets and financial product innovation in China and the U.S. They highlighted the roles of non-banks in a variety of services in both countries, which was enabled by technological innovation and supportive regulatory regimes. For the most part, they applauded these developments, which they saw as both improving the robustness of financial systems and expanding the range of financial opportunities for savers, investors, borrowers, and firms. However, they also agreed that new products and actors called for careful attention to risk management on the part of both financial institutions and regulators.

Role of Non-Banks in Financial Markets

Participants noted the importance of non-bank financial institutions in a variety of roles in financial markets. For the U.S., much of the focus of discussion was on wholesale markets; in contrast, discussion of China focused primarily on retail lending and trust banking.

In the U.S., it was pointed out that non-banks had helped to transform several key functions previously fulfilled by banks. A striking example was the growth of non-bank market makers. Market making had traditionally been a very labor-intensive activity largely carried out by banks and investment banks. However, regulatory and technological developments had provided some non-banks the opportunity to leapfrog the incumbent banks. For example, Citadel had become the world's largest market maker in equities. On the regulatory front, post-crisis regulations including the Volcker Rule had made it more difficult and costly for banks to provide market making services. Meanwhile, improvements in computing and communication technologies had allowed for the development of automated platforms that were cheaper, more reliable, and more efficient than banks' existing systems. Firms that invested in the necessary technology were thus able to step in to provide liquidity that might otherwise have simply been withdrawn, and by some measures were providing greater liquidity, allowing for lower commissions, tighter spreads, and more rapid execution.

Non-banks were also becoming more important in derivatives and swaps markets. In derivatives, non-banks had accounted for the majority of liquidity growth over the last decade, whereas swaps markets had so far seen less penetration by non-banks. It was argued that the persistence of bank dominance in swaps reflected the history of those markets, which had traditionally been customer-driven, and thus often better serviced by banks. However, non-banks were seen to be increasingly entering swaps markets as well, particularly for commodities swaps (where about half of liquidity was already provided by non-banks) and interest rate swaps. This expansion of market participants could have significant effects in the real economy as well—for example, it was argued that the fracking revolution in the U.S. had been supported by the availability of swaps, which were often provided by financial institutions with high risk thresholds.

Participants were generally favorable about these developments. They agreed that efficiency and pricing had been significantly improved by the ability of non-banks to bring innovation to market making and trading, as well as to fill gaps created by regulation (as in the case of market making). It was also argued that encouraging a diverse ecosystem of market participants would enhance robustness and resilience. This had been supported by a regulatory approach that sought in principle to encourage, not inhibit competition. At the same time, it was agreed that regulators needed to keep up with rapid market developments. One set of recommendations had to do with expanding access for non-banks. For example, it was suggested that encouraging new entrants to clearing and settlement of OTC derivatives would enhance competition. Some also called for expansion of multilateral trading facilities with open entry, to allow for “all-to-all” trading. A second set of recommendations focused on transparency. Some participants noted that informational asymmetry constituted a barrier to entry for new financial institutions. Thus, they suggested that regulators should require post-trade reporting to ensure equal access as well as more efficient price discovery.

Finally, participants recognized the need to balance innovation, investor protection, and stability. Changing technologies and systems would require both financial institutions and regulators to try to develop applicable risk models. Moreover, the entrance of new firms, many of which were entering from the tech world rather than the financial world, meant that in some cases fintech firms did not understand their legal obligations, while regulators and supervisors might not understand the risks and business models of firms that were providing core infrastructures or services. A number of participants spoke approvingly of regulatory sandboxes, as well as the U.S. Commodity Futures Trading Commission’s “Lab CFTC,” which sought to ensure communication between fintechs and regulators. This communication was seen both to improve fintechs’ understanding of their own regulatory compliance obligations, and to improve the quality of CFTC policy making. For example, Lab CFTC had contributed to the Commission’s decision to allow self-certification of cryptocurrency exchanges’ futures contracts.

Discussion of the role of non-banks in China focused more on issues that directly affected retail savers, investors, and borrowers. An important element was the growth of fintech-based lending by non-banks such as CreditEase. Unlike in the U.S., Chinese households and SMEs had traditionally had limited access to bank credit, whether in the form of loans or revolving credit. While this was seen to be partly the result of the preferences of banks for lending to larger or state-owned enterprises, participants also highlighted the lack of individual-level credit data, which made it difficult to gauge risk. (In contrast, the high level of development of full-file credit reporting and evaluation in the U.S. had enabled the widespread use of credit cards and rapid approval of personal and SME loans by both banks and non-banks.) The large gap in credit availability to SMEs and households in China was increasingly being filled by fintech that were using novel means of credit evaluation and verification. This was seen by many participants as important for the growth and robustness of the real economy.

Participants also discussed the growing role of trust companies. The role of trust companies in China had grown considerably since they were first allowed in 2001, and participants observed that both regulation and practice were still rapidly evolving. With 68 trust companies and RMB 22 trillion under management, trust banking was second only to the banking system in terms of assets. Most trust company activity had been in lending, particularly in areas that were underserved by banks. These included real estate and SME lending. Trust companies tended to serve high net-worth individuals and families who were looking for higher returns than in traditional savings vehicles and were willing to provide patient capital; thus, their funding was a good match for assets in the form of loans to smaller or less-collateralized businesses. Going forward, participants expected continued innovation and diversification of trust company business. For example, some were already expanding into asset securitization as well as SME lending.

Non-banks had stepped into these gaps in China for three reasons. One was that many new players in the retail finance sector had higher risk appetites than the banks that had previously dominated Chinese finance. It was noted, for example, that a number of firms that were active in retail finance were owned by private equity firms. A second reason was regulation. While bank regulation continued to disincentivize rapid expansion of retail lending, fintechs had initially been lightly regulated, which allowed for considerable innovation and competition. Third was the ability of non-banks to access vast amounts of new information that was relevant to creditworthiness. While this was seen as particularly relevant to mobile payments players such as Alipay and WeChat Pay that were able to directly track consumer behavior, other non-banks had also developed new sources of data. P2P firms, for example, were able to develop their own data on credit repayment that could be used to reduce the risks to borrowers. Increasingly, fintech players were looking to new sources of data, including non-credit data and “vertical data.” (One example of vertical data could be found in the restaurant business, where integrated platforms that combined ordering, payments, and accounting had become popular. By combining that data with tax and payroll data, it was argued that lenders could get good sense of the creditworthiness of SMEs in that space.)

Financial Innovation

While financial innovation was seen to have been extremely important in both China and the U.S., participants agreed that the impact had been very different in the two economies. Many considered China to be the world leader in mobile payments and person-to-person (P2P) lending, but felt that it was behind in other respects. In the U.S., in contrast, market infrastructures and trading had been transformed by technological developments, whereas payments had remained largely the province of banks.

Going forward, participants agreed that there were a number of opportunities and concerns raised by financial innovation in the two countries. These included issues surrounding consumer data, crypto assets, and risk management. Participants expressed the hope that the promise of fintech advances could be fulfilled while also ensuring system stability and consumer protection.

Innovation in the accumulation, bundling, and analysis of consumer data was seen by many participants as an issue of central importance in the development of the financial systems of China and the U.S. They noted that Big Data was allowing for a more comprehensive understanding of individuals' consumer and financial behavior, which in principle could allow for better credit evaluation and targeting of services. This had already been instrumental in the development of retail payments and financial services in China, which had lacked full-file credit reporting of the sort that had developed over decades in the U.S. It was also suggested that a diversity of models for evaluating credit based on consumer data could make for a more resilient financial ecosystem.

At the same time, some participants warned that there may be inherent dangers of the approaches that Chinese and U.S. firms had taken to the use of consumer data, which might call for enhanced regulation and supervision of firms that used it. One major concern was over data ownership and privacy. It was noted that data was often being collected and traded in an unregulated manner, raising questions about who should own the data and what rules should be enforced on data privacy. While data privacy rules were seen to have been a check on the development of fintech in Europe, concerns about data privacy were arising also in the U.S. and even in China. A second concern was over the usefulness of new data sources for making financial decisions. Credit rating of individuals and companies in the U.S.—imperfect though it was—had been built on an edifice of empirically-tested models over a period of decades and multiple economic cycles; in contrast, some participants worried that it was not at all clear how consumer data might consistently link to creditworthiness, particularly in economic downturns. Thus, they saw a role for regulators in monitoring the risks of non-bank lending. A third concern was over misuse of information. For example, the use of behavioral data could lead to discrimination, whether intentionally or unintentionally, on the basis of ethnic group or political behavior.

Participants also noted a number of other technological challenges for both financial institutions and regulators. For example, artificial intelligence (AI) could contribute significantly to know-your-customer (KYC) compliance by providing seamless recognition of identity through biometric and facial recognition, but also raised the possibility of misuse and violation of privacy. AI-enabled natural language recognition could also be used by regulators to improve enforcement of insider trading rules. However, regulation of AI-based operations raised a variety of thorny problems of risk modeling and attribution of responsibility. Crypto assets and blockchain applications similarly raised new challenges for risk management and regulation.

Thus, participants urged traditional financial institutions, fintechs, and regulators to communicate effectively about the impact of new technologies and business models. In particular, regulation was seen as important in monitoring risk and protecting investors and customers, while also supporting innovation to ensure that the financial sector could support the real economy effectively.

Session 2: U.S.-China Relations: Implications for Cross-Border Financial Services

In Session 2, participants discussed the state of U.S.-China relations and the implications for cross-border financial services. Most participants saw existing and potential benefits from cross-border services, despite disagreement on the openness of the two financial services markets. Many saw positive momentum, particularly in terms of Chinese financial liberalization, but expressed concern that disagreements and confrontation in other areas of the economic and political relationship would prove an obstacle to the growth of cross-border financial services.

Assessments of U.S.-China Financial Services Issues

Participants discussed at length the current state of U.S.-China financial services. They expressed mixed opinions about the pace and extent of financial liberalization in China, as well as openness of U.S. financial markets to Chinese financial institutions.

Participants generally agreed that a basic principle should drive financial market regulation and U.S.-China negotiations on financial regulation: economies benefit from financial markets that are deep, liquid, and efficient. They saw efficient, well-regulated financial markets as essential to allocating capital effectively, while also offering a variety of opportunities to savers. In addition, many participants argued that regulation should ensure competition in financial services. Allowing the most efficient and innovative financial institutions to compete on an even playing field would promote greater efficiency, lower fees, and better price discovery.

Participants acknowledged that there could be trade-offs between competition and innovation on the one hand and systemic stability on the other that could justify regulations. At the same time, they noted that restrictions on market entry could be used to lock in competitive advantage for local institutions, regardless of the explicit rationale. However, a number of participants pointed out that the Chinese financial system was still at a developmental stage and that therefore it would be important to implement liberalizations in an appropriate sequence. Others were concerned that this argument could be an excuse to exclude foreign financial institutions from potentially lucrative business opportunities. With regard to the U.S., there were split opinions as to rules and procedures that restricted Chinese entry on the grounds of prudential or security concerns.

While participants offered many positive appraisals of the ways in which U.S. and Chinese financial institutions and markets were benefiting from cross-border financial services, there was also considerable discussion of concerns about regulations in the two markets. Many of these were related to market access.

Concerns about U.S. Financial Regulation

A number of participants argued that Chinese financial institutions faced significant barriers to doing business in the U.S. One of these was licensing rules. For example, they complained that it remained difficult for Chinese banks to gain licenses for U.S. branches. Although a few large Chinese banks had gotten permission to do commercial banking in the U.S., it was noted that no Chinese bank had been able to gain intermediate holding company status there, restricting Chinese banks' ability to service their major clients, such as through IPOs. (This was necessary because their home-country structure was a bank holding company rather than a financial holding company.) Meanwhile, the domestic holding company structure of many Chinese state-owned banks prevented them from entering the U.S. market at all, as the prevalence of Central Huawei or China Investment Corporation as major owners of these banks violated Fed restrictions on bank ownership by firms (in China's case state-owned firms) engaged in commercial activities. Some participants felt that the unwillingness of Fed supervisors to authorize Chinese bank operations in the U.S. reflected conscious discrimination, but others argued that the standards were not designed to account for the state ownership. Either way, a number of participants anticipated that the current situation would be hard to resolve.

Other Chinese financial institutions were also restricted from doing business in the U.S.—for example, CITIC Securities had only been able to obtain an advisory license for its New York subsidiary, because it was seen to be part of a bank holding company. Some participants also spoke of what they saw as “invisible barriers” to second-tier banks. For example, supervisors had in several cases decided that particular Chinese banks had been unable to demonstrate sufficient capabilities in anti-money laundering and know-your-customer. There were also concerns about the extraterritoriality of U.S. regulation. For example, some participants pointing to a new proposal by Senator Marco Rubio to require audits (including those done in other countries) of all firms listed on U.S. stock exchanges to be made available to U.S. regulatory agencies; this proposed rule would run directly into Chinese regulations that did not allow audits to be shared with foreign authorities.

As in previous years, review of Chinese investments by the Committee on Foreign Investment in the United States (CFIUS) was seen by many a number of participants as a serious impediment to Chinese companies and financial institutions doing business in the U.S. Indeed, many felt that CFIUS had become considerably more restrictive toward Chinese investment under the Trump administration, and especially after the passage of the Foreign Investment Risk Review Modernization Act (FIRRMA) in 2018. Although CFIUS was not designed to restrict financial institutions, it was seen as limiting business opportunities for Chinese financial institutions in three ways. First, since the primary clients of Chinese financial institutions were Chinese corporates, rulings against their investments in the U.S. also affected those financial institutions. Second and—according to most participants—more importantly, the uncertainty about whether CFIUS would approve or amend a particular acquisition had a chilling effect on Chinese companies considering investing in the U.S. Third, there were at least some direct effects on Chinese financial institutions as well. For example,

one participant described an insurance deal that was only approved after the Chinese acquirer agreed to take steps to mitigate customer data issues. This case also showed the ways in which CFIUS and legislators were expanding the definition of national security concerns that could scuttle a planned investment. Some participants defended the CFIUS process, describing it as rigorous, fair, and consistent. They also pointed out that it did not designate any sectors as being closed to foreign investment, in contrast to China where sectors such as media remained closed to investment. Others disputed this characterization of CFIUS. They felt that CFIUS remained a black box that lacked clear criteria for approval or disapproval, creating enormous uncertainty for foreign investors. They saw this as particularly true for Chinese investors, who were subject to greater scrutiny than investors from other countries.

An unresolved question was whether these restrictions should be understood as discriminatory against Chinese firms or not. Some participants argued that U.S. financial regulations had been uniformly applied to all foreign financial institutions and corporations and thus were fair. They felt that the fact that Chinese financial institutions were less likely to meet auditing or AML rules and were more likely to be state-owned did not speak to how objectively the rules were applied. Others remained suspicious. They felt that many rules were being designed or interpreted with the goal of disadvantaging Chinese firms, and that supervisors and regulators shared that goal.

Concerns about Chinese Financial Regulation

Participants also raised a variety of concerns about Chinese financial regulations. Some of these focused on the impact on foreign financial institutions. A particular concern was what many participants saw as persistent barriers to entry and market access. A variety of sectoral barriers remained in place that prevented foreign financial institutions from competing in areas in which they saw themselves as competitive. In some cases, it was argued, exclusion of foreign firms had permanently damaged their ability to compete in Chinese markets, even after formal restrictions were removed. One prominent example put forward by these participants was payments. They argued that the exclusion of foreign financial institutions had allowed Chinese mobile payments companies to take unassailable control of the world's most lucrative market. There were similar competitive concerns raised about credit card issuance, which had long been denied to foreign firms. Participants also pointed to investment banking and asset management as business areas in which competitive foreign financial institutions continued to be excluded, either by licensing restrictions or equity caps. Even in sectors like commercial banking, where formal restrictions had been mostly lifted as of August 2018, some argued that liberalization had happened too late to benefit foreign banks.

Equity caps were an important concern for many financial institutions. Although equity caps in commercial banking had been lifted, they remained in place in many sectors. Insurance firms were frustrated by equity caps in the life insurance, pension, and health insurance

sectors even though they had been formally raised. Asset management firms were also prevented from creating wholly-owned subsidiaries, even though in 2018 the equity cap had finally been raised to 51%, allowing (at least in principle) a foreign firm to have a majority interest in its Chinese subsidiary. In contrast, they argued, the U.S. allowed full foreign ownership across all financial services.

Licensing was another major concern for foreign financial institutions, even where regulations no longer formally restricted entry. For example, even after China had eliminated barriers to purchase distressed debt, no foreign firms had received nationwide licenses to do so. Similarly, no foreign payments service had yet received a license or even had its application accepted for review, while only one asset management firm had been approved to own 51% of its subsidiary. A number of participants offered examples of frustrations with licensing and approval processes even in sectors and services where rules were less restrictive. Some spoke of opaque and time-consuming processes, particularly at provincial or local levels. It was also noted that in many cases licenses were awarded for limited lines of business, requiring branches to have to make multiple applications for local licenses even when they had already received national licenses for a larger range of services.

Again, there were disagreements about the extent to which these barriers were either intentional or discriminatory. Some participants argued that Chinese financial institutions faced the same problems of arbitrary and inconsistent approvals as foreign firms, suggesting that the problem was more about bureaucratic capacity and regulatory consistency than about discrimination. A number of participants also argued that, because China's financial system was still in the developmental stage, it was appropriate to move slowly at times in providing access or opening up new lines of business. They predicted that, over time, regulations and licensing restrictions would be eased where regulatory compliance, prudential standards, and consumer protection could be ensured.

A more general concern on the part of some participants was that the commitment of Chinese authorities to financial liberalization seemed to be slowing. They pointed the persistence of equity caps, licensing restrictions, and sectoral barriers, although they acknowledged that many of those barriers were being slowly dismantled. Continuing capital controls and the lack of currency derivatives were also a concern. They also expressed concern about the pace of development of new sectors and financial instruments. As in previous years, participants were frustrated by the lack of hedging instruments and the slow pace of introducing new financial instruments such as commodity options. There was also impatience with the development of some new markets such as pensions and life insurance, where foreign financial firms believed that they had a competitive advantage and a lot to offer Chinese households.

Many participants pushed back against that narrative. They argued that Chinese authorities were deeply committed to continued financial liberalization. They pointed to statements by senior officials including President Xi, Premier Li, and high-level officials from the People's Bank of China and financial regulatory agencies that had reaffirmed China's commitment to

financial liberalization. Also, Chinese authorities had introduced a number of financial liberalization measures even in the midst of the U.S.-China trade wars. They predicted that financial liberalization, including for foreign financial institutions, would continue because it was strongly in the interest of China to develop a more efficient, robust, and comprehensive financial system for the benefit of its own economy.

U.S.-China Trade Wars

Many participants expressed deep concerns about the present and future of U.S.-China trade disputes. They pointed out that the U.S. and China were deeply intertwined with each other economically—not only were each the other’s largest trading partner, but they both were part of global supply chain that extended their engagement to the whole world.

Already, it was pointed out, the trade conflict was causing pain for both countries. For China, U.S. tariffs were adversely affecting exports, and their own retaliatory tariffs were raising prices on a variety of imports. The same was true of the U.S. The scale and comprehensiveness of the tariffs were leading to macroeconomic effects as well—it was pointed out that the domestic price effects of the latest round of U.S. tariffs had fully offset the benefits of the 2017 tax break for many Americans, particularly in the working class. (That said, some participants argued that the costs for U.S. consumers would be a reasonable investment if negotiations led to the end of what they saw as unfair Chinese trade practices.)

Looking forward, participants agreed, the impacts would only become more severe if an agreement was not reached. Some participants pointed to the history of U.S.-Japan trade conflicts in the 1980s and early 1990s, which they argued had been far more vitriolic than U.S.-China trade conflicts had been to date, even though Japan was a U.S. ally. They argued that many U.S. politicians were increasingly seeing China as a strategic threat, such that there was even speculation about a new Cold War. If that were the case, it could justify much harsher efforts to decouple the U.S. and Chinese economies. While it appeared that President Trump’s greatest concern was bilateral deficits, which could in principle be ameliorated by a negotiated agreement, many participants anticipated that the longer-term focus would be over technology. They saw technology as central to both U.S. demands and Chinese economic aspirations; thus, it was difficult for some participants to see a mutually satisfactory resolution to disputes over intellectual property rights and market access. Moreover, if there were to be a new Cold War, access to both technology and information would likely be an area of confrontation. For some participants, the potential endpoint of such a confrontation would be a decoupling of the two economies in terms of supply chains, infrastructure, and finance—creating a world characterized by what some termed “dual eco-spheres.” This would be enormously disruptive not only for the U.S. and China, but also for other countries that might be forced to choose sides.

Participants agreed that this was a fate to be avoided if at all possible. Instead, they expressed hope that a deal could be reached on the key bilateral issues. Some were even

hopeful that a U.S.-China agreement that addressed key issues of intellectual property, cybersecurity, and data could become the basis for new global rules, and urged the two governments to come to a mutually beneficial long-term resolution.

In the meantime, concerns about the future were seen to be clouding current business decisions. A number of participants cited potential investments by Chinese or U.S. firms that had been put on hold while the firms waited to see whether tariffs or other restrictions would make the investments uneconomical, or even whether they would be allowed to do business at all. Some participants also suggested that the trade conflicts were slowing down aspects of Chinese financial liberalization, although this was disputed by other participants who argued that financial liberalization was progressing in many respects.

Participants were split between optimism and pessimism about the outcome of U.S.-China trade conflict. Optimists argued that both China and the U.S. benefited enormously from their trading and investment relationship, despite frictions and misunderstanding. Moreover, the deep integration of their supply chains would make conflict (let alone decoupling) much more costly. Thus, they felt that the costs of conflict and the potential economic benefits of compromise for both sides made compromise more likely. Pessimists were not convinced. On substantive grounds, they argued that the chasm between U.S. goals of intellectual property protection and reduced state support for Chinese-produced goods and services on the one hand, and Chinese goals of maintaining the socialist market system and becoming a leading technological power on the other hand, would be too wide to bridge quickly or easily. Meanwhile, they argued, domestic politics in both countries were pushing leaders to take a hard line in negotiations. For example, some participants predicted that, even if President Trump were to have an agreement in mind that would satisfy his administration's goals, it would be politically unlikely for him to make it public until after the November 2020 election. Thus, there was a concern among some participants that China and the U.S. might be backing themselves into a new Cold War even if leaders did not want to do so.

Opinions were also split as to the prospects for cooperation in financial services. Some participants argued that financial services was one of the few areas in which China's interests were largely in accord with U.S. interests—after all, China had pledged to continue financial liberalization for its own domestic reasons, rather than simply to appease the U.S. They expressed the hope that cooperation in financial services could proceed even if deadlock persisted over other economic issues—or perhaps cooperation in financial services could be the basis for cooperation in other sectors. Others were skeptical. Although they agreed that Chinese financial liberalization might proceed in some sectors, they would not necessarily be the areas that were most important to U.S. financial institutions. Meanwhile, they saw little incentive for U.S. politicians or regulators to reduce barriers to Chinese financial institutions.

Mutual Misunderstanding?

For some participants, the core problem leading to the current U.S.-China trade war was mutual misunderstanding. They argued that Chinese leaders and officials still saw China as

a developing economy with its own distinctive political and economic system. Despite the wealth and technological achievements of many of its coastal cities, much of China remained poor, isolated, unbanked, and technologically disadvantaged. Thus, China needed to have the policy space to address those gaps through assertive policies, using a variety of tools that included regulation, state-controlled finance, promotion of local firms, and the like. Moreover, the successes of the socialist market system to date had demonstrated to many in China that its system was superior to U.S.-style neoliberalism in advancing the interests of its population. In other words, China wanted to learn from the U.S. and other foreign countries, not become them. Thus, pressure from the U.S. to change key aspects of China's economic system and policies was seen as an attack on China, rather than an effort to promote a win-win solution.

Participants had varied views about U.S. understandings of China and U.S.-China relations. Some argued that the U.S. had fundamentally misunderstood China, dating back to the time of its accession to the World Trade Organization, mistakenly believing that global engagement and trade would lead the Chinese economic structure and policies to converge with those of the U.S. and other capitalist countries. According to these participants, the realization that this was not the case had led to a dramatic reversal of beliefs about China that now depicted it as a foe. While not all participants agreed with this perspective, many agreed that U.S. leaders and officials had lost trust in Chinese institutions and intentions. (Others disputed this characterization, pointing to the many areas of productive cooperation between U.S. and Chinese agencies.)

Many participants also expressed confusion about the beliefs and intentions of the Trump administration. In particular, they wondered what the actual goals of the administration were in its negotiations with China. One question was whether economic goals (intellectual property, "fair" trade, bilateral deficits) or political goals (containment, technological supremacy) dominated administration decision making. Among economic goals, participants expressed confusion about whether the declared focus on bilateral deficits was a serious goal or primarily a bargaining chip for other, more important goals. And some participants doubted whether the administration actually had a long-term strategic vision for U.S. relations with China, or was just reacting to particular events and short-term political trends.

Moving Forward

Despite some disagreements about the desired, and likely, outcomes of U.S.-China trade conflict, many participants did have some suggestions for both sides in trying to come to agreement. Most importantly, they called for both U.S. and Chinese leaders to cool down their rhetoric. They worried that the language of "new Cold War" and "core interests" had the effect of hardening positions and reducing the space for mutually beneficial compromises. They also suggested that the conflict be managed face to face, rather than in public—or as some participants put it, "tweet more respectfully."

A number of participants also expressed concerns that the two sides were not focusing sufficiently on win-win solutions. These participants agreed that demands for China to

change essential elements of its economic system or political governance were doomed to fail and would only irritate Chinese leaders. Instead, they argued, negotiations should respect the differences between the two systems. (However, there remained ambiguity as to what constituted “essential elements” of the Chinese system.)

It was also argued that one way to overcome the seeming impasse in negotiations would be for business and financial leaders to take the lead in advancing dialogue, both within and between countries. Participants expressed hope that business leaders could focus better on the particular issues that affected them and practical measures to address them. Moreover, they could have an important voice within their own countries in emphasizing the costs of confrontation and benefits of agreement, proposing solutions, and encouraging agreement to leaders and the public.

Participants discussed whether a negotiated agreement would need to be comprehensive (encompassing all the issues from deficits to intellectual property to cybersecurity to market access) or sequential. Many participants were skeptical that a comprehensive settlement was feasible, especially in the short time span demanded by the Trump administration and electoral dynamics. Instead, they suggested that trade, intellectual property, and financial services should be separated into tracks. Some felt that financial services, which they saw as the “low hanging fruit,” should go first as a means of building momentum. However, they recognized that political demands in the U.S. could constrain the Trump administration’s ability to pursue such a strategy.

Session 3: The Rise in Public and Private Debt in the US and China: Implications for Economic Growth in a Post-QE World

In Session 3, participants discussed rising debt in the U.S. and China, focusing in particular on public debt. They considered various explanations for the increases, including fiscal policy choices and intergovernmental structure, as well as the implications for debt sustainability. For the U.S., participants expressed concern about both the procyclical nature of federal budget deficits and the long-term sustainability of current trends in the midst of an aging society. For China, the fiscal position of local governments was seen as a particular concern.

Rising Debt in U.S.

Discussion of rising debt in the U.S. focused on federal government deficits and debt rather than private or state debt. Participants cited projections that over the next ten years, gross federal debt would rise from about 78% to 93% of GDP.

Participants focused on three causes of rising federal debt. A structural factor was societal aging. Participants noted that the Baby Boom generation was increasingly moving into retirement age, while new entrants to the labor force were not sufficient to offset retirements; meanwhile, funding for Social Security and Medicare was not sufficient to cover the ever-longer post-retirement life spans. This was seen as likely to contribute to growing deficits and debt. In the shorter term, many participants pointed to U.S. fiscal policy (which one participant labeled the “dark side of Trumponomics”). The 2017 tax reform bill had significantly reduced tax revenues, which had not been fully offset by lower spending. Participants cited estimates that federal debt would top \$1 trillion by 2020 and would continue to grow. The third factor cited by a number of participants was the lack of political will to address long-term budget deficits through either higher taxes or lower expenditures, including entitlement reform.

Participants expressed mixed views about the effects of Trump administration fiscal policies. Some argued that the tax reform had been an important boon for the U.S. economy both in the short term (due to stimulative effects) and long term (by incentivizing productive investment and bringing more workers back into the labor force). They were generally less concerned about the longer-term effects on federal government debt, either because they expected tax revenues to rise with economic growth or because they expected a political deal would be reached to cut spending. Others were more concerned. They argued that the positive effects of tax reform would be transitory, pointing to the small effect to date on investment. For these participants, Trump administration fiscal policy was irresponsibly procyclical, and they worried that growing deficits at a time of economic prosperity would leave little room for fiscal stimulus in the event of a downturn. Some also argued that the U.S. needed a long-term strategy for raising revenues in order to be able to accommodate the rising entitlement spending that would accompany societal aging.

Looking to the medium term, participants considered the question of whether recession was likely and how it might relate to fiscal policy. Some participants argued that recession in the next year or two was likely. They noted that the stimulative impact of the 2017 tax reform would inevitably abate—and in fact that if tariffs on Chinese products persisted they would eliminate the effects of the tax cut—but that it was unlikely that further tax cuts or spending increases would make up for the gap. They also pointed to other signs of likely slowdown, including wage compression, declining profit margins, and the inverted yield curve. If a recession were to ensue, they argued that the U.S. had very little fiscal space for more stimulus at the same time that there appeared to be very little monetary space as well. Other participants were more sanguine, arguing that the U.S. had not yet reached the end of the upward business cycle for supply-side reasons. In addition to the expected rise in business investment, they argued that low inflation demonstrated that the economy was not yet pushing up against the limits of full employment. Rather, they argued, there was still room for further employment growth as discouraged workers moved back into the labor force. They were less worried about running out of fiscal and monetary ammunition to deal with the next crisis, and more concerned that Congress or the Fed might prematurely choke off the current economic expansion.

There was also discussion of the long-term implications of rising federal debt. For some participants, the seemingly inexorable rise of government debt was concerning, either because they saw it as unsustainable over the long term or because they considered it an unfair intergenerational transfer of wealth from younger to older generations. There was some disagreement about sustainability, as several participants pointed out that interest rates remained low and therefore higher levels of debt would be affordable. Others countered that the growth of debt and debt service was still outstripping growth of the economy as a whole.

In discussing sustainability, some participants also raised the question of how debt would be financed. When U.S. public and private debt first began growing rapidly in the 1960s, debt-fueled growth was funded by inflation. However, after Fed chairman Paul Volcker broke inflation, it was funded by inflows from foreign countries, which was made possible by increasing openness and financial innovation. It was noted that foreign holdings of U.S. government debt were now in decline, and were primarily held in short-term debt. In 2001-15, China had accounted for a large portion of the inflows to the U.S., particularly in the form of foreign exchange reserves held in U.S. government debt. Since 2015, China had sold \$221 billion of Treasuries, mostly in response to RMB outflows in 2016. While few participants expected that China would sell off U.S. debt for political reasons, China's recent shift toward more balanced trade could potentially make it harder to continue to finance U.S. debt with foreign surpluses.

Rising Debt in China

In contrast to the U.S., participants expressed concerns about Chinese local government debt and private debt, rather than central government debt. There was particular concern

about the fiscal sustainability of local governments. Indeed, one estimate presented in Session 3 was that local government debt had reached 75% of GDP.

Local governments in China—albeit with some exceptions such as Shanghai or Beijing—were seen by participants to be facing several problems that they could not control. Of particular concern was their limited ability to raise revenues, due to the 1993 fiscal system that designated most taxes as the purview of the central government while leaving many expenditures to local governments. The system was not designed to effectively manage vertical imbalances or to equalize revenues horizontally. For many local governments, this meant an inability to pay for expenditures with tax revenue.

In response, local governments had followed one or both of two strategies: asset sales or borrowing. Asset sales, including land sales and privatization of state-owned enterprises (SOEs) had been important sources of revenue for many provincial and local governments. However, over time, the capacity to sell assets was naturally declining. The other strategy was borrowing, which took several forms, not all of which were transparent. In addition to direct bond issuance and bank borrowing, local governments had also created special-financing vehicles (SFVs) to borrow from banks or markets. Much of the lending of local government SFVs was extended to troubled SOEs. Participants also cited the use of loan guarantees (implicit or explicit) to local SOEs in order to maintain employment or not to incur costs of failure as a source of hidden debt.

Participants discussed several possible policy options for addressing the structural shortfalls of local governments. Many of these focused on reducing loss-making SOEs, which some participants argued were responsible for the majority of local government debt. To address this core problem, several participants recommended serious SOE reform at the local level, through liquidation of zombies, sale of SOE assets, and debt-equity swaps. Another option suggested to reduce local government obligations was the expanded use of public-private partnerships rather than relying on SOEs or budget allocations for infrastructure projects.

On the revenue side, one suggestion was the introduction of property taxes, which were currently limited to a few major cities. Some participants argued that property taxes would offer a stable source of revenue, while also potentially contributing to other social goals such as reducing real estate speculation and addressing wealth inequality. Others were skeptical that property taxes would be feasible, because of both the practical difficulty of assessing property values and the political difficulty of imposing new taxes on Chinese people's primary source of wealth.

Ultimately, many participants argued that fiscal transfers from the central government would be necessary to make up the shortfall between local governments' expenditures and revenues. However, participants also agreed that there needed to be clearer and more consistent fiscal discipline on local governments. Thus, much of the focus of discussion was on rules for intergovernmental fiscal relations. It was argued that these rules should clarify the respective expenditure and revenue responsibilities of central vs. local governments and create formulas for fiscal transfers to local governments. In exchange for access to fiscal

transfers, local governments would need to accept more oversight by the central government. Such oversight would require better accounting and disclosure, including clearer accounting for SOEs and SFVs that local governments may prefer to keep off-balance sheet. It would also include limits on the ability of local governments to borrow, either on their own accounts and through SOEs or SFVs. Finally, participants emphasized the importance of market mechanisms for funding local government debt, rather than pressuring commercial banks to provide credit. Some participants suggested that better disclosure and accounting could bring in private investors, or even foreign investors, for the debt of well-run local governments.

There was also some discussion of China's future government debt trajectory. Looking at China's longer-term growth prospects, some participants predicted that the path to more modest economic growth (from the current 6.5% to around 4.5% over the next 10 years) could be marked by volatility, as the central government implemented policies to encourage deleveraging and rebalancing. In the event of volatility, they predicted that the central government would need to put in place sizable fiscal packages. An alternative suggestion was for monetary stimulus. Due to low interest rates, it was suggested that some form of quantitative easing might be necessary—perhaps through the purchase of local government debts (if accompanied by incentives for reform).

China-U.S. Interactions

Looking at recent history, participants noted that the U.S. and Chinese had been linked in macro terms. The U.S. government and private sector had required large infusions of foreign capital to fund investment, whereas China's large trade surpluses were largely invested in U.S. assets. While some participants argued that this dynamic had been a major contributor to the global financial crisis, it was also argued that the transition away from Chinese surpluses could be difficult to manage smoothly.

Several participants speculated that a deal could be made between the two countries that could reduce trade and political frictions while also addressing the issues of macro imbalances. One suggestion was that the Chinese government could pledge to invest a set amount in U.S. infrastructure development. It was argued that this could be a win-win for the two countries, with the U.S. gaining access to patient capital for badly-needed infrastructure, Chinese investors accessing high-quality long-term assets, and both countries benefiting from reduced tensions. Others countered that this was not a feasible option. They argued that the main reason for lack of infrastructure spending in the U.S. was not the inability to borrow money at low rates, but rather an unwillingness on the part of federal and local governments to commit to infrastructure spending due to political pressures not to raise taxes or fees.

Session 4: Institutionalization of Capital Markets and Access to Investment Opportunities for Retail Investors

In Session 4, participants discussed the institutionalization of capital markets and investment opportunities for retail investors, focusing primarily on China. The predominance of retail investors in China's equity markets was seen as concerning, as it contributed to herd behavior and volatility, while also exposing unsophisticated retail investors to high levels of risk. Several participants drew on U.S. experience to call for the development in China of investment vehicles such as mutual funds and to provide incentives for retail investors as well as the development of appropriate investment vehicles such as mutual funds. Overall, participants agreed that China should continue to nurture the growth of institutional investors and to expand opportunities for foreign financial institutions that could contribute to the efficiency and depth of Chinese financial markets.

Lessons from the U.S.

Participants discussed several aspects of U.S. capital markets that they saw as relevant to the needs of retail investors. These included the development of a culture of investment, the development of appropriate vehicles for retail investors, importance of institutional investors, and the need to balance investor protection and choice.

A number of participants pointed to the introduction and widespread adoption of defined-contribution pension plans and individual retirement accounts in the U.S. as a central component in the development of retail investment. As a result of these developments, the number of households with capital market assets had expanded enormously since the 1970s. As a result, in contrast to most countries, retail investment in the U.S. was not confined just to high net-worth households, but included households from across the spectrum in terms of income, age, and geography.

Along with the spread of defined-contribution pension plans and individual retirement accounts, participants noted the development over time of a variety of products and practices that catered to the particular needs of retail investors. Mutual funds allowed investors to diversify their risks and target either broad or narrow asset classes. Investors could also access passive or active funds, and could compare historical performance and management fees of various funds. Monthly paycheck withdrawals automated investing decisions and dollar-cost averaging. And products such as life-cycle funds or annuities could be used by risk-averse or less sophisticated investors to further reduce risk and uncertainty.

Several participants made the point that financial education was key to the development of a retail investor base. In the U.S., choices had expanded over time, as experience and financial education programs by employers and fund managers had increased the knowledge of retail investors. Without good financial literacy and informed financial planning, retail investors could make crucial mistakes, especially if they had a wide variety of options available to them. While some participants were skeptical of the level of financial literacy in the U.S.

(as opposed to investors' confidence in their financial literacy), most agreed that that level had been heightened by financial education efforts.

Another observation was the importance of competition. It was noted that commissions and management fees for retail financial services had dropped considerably over time. This was largely due to competition, which was enabled by regulations that prevented collusion and required transparency of pricing and returns.

The vast amount of retirement funds in the U.S. had also spawned the growth of a varied and sophisticated institutional investor base. Pension funds and asset management companies drove innovation of investment strategies, competition among trading venues, and representation of the shareholder rights of their retail clients, all of which had contributed to the depth, liquidity, speed, and efficiency of U.S. capital markets.

While much of the discussion reflected a positive assessment of the opportunities available to retail investors in the U.S., participants also pointed out continuing concerns and issues. Some participants expressed concern that many retail investors were still not sufficiently knowledgeable about key investing principles or about how to manage risk vs. return to meet retirement or other goals. This suggested the need for rules to constrain choices for many investors. A contrasting concern was that existing rules did not allow enough choice for retail investors. In particular, some participants felt that retail investors should have better access to private markets, which they argued offered better returns. This discussion highlighted the tension between the goals of investor protection and maximization of investment opportunities.

Chinese Capital Markets

Participants discussed at length the prospects for expanding opportunities for retail investors in China. They noted that, despite the rapid growth of retail stock market investing, most households still held their assets in real estate and bank accounts. At the same time, Chinese equity markets were still dominated by retail investors, many of them inexperienced or unsophisticated. Many participants argued that the predominance of retail investors in Chinese equity markets contributed to excessive volatility, as in the case of the 2015 equity bubble and crash. Expanding the role of institutional investors, particularly those managing long-term investments such as retirement and life insurance, would help to stabilize and improve the quality of price determination, while also offering important services to households.

Participants agreed that Chinese households would benefit from having a broader range of saving, investment, and insurance vehicles to meet their financial goals. In particular, they pointed to the need to provide means for households to prepare for retirement and educational expenses, which they saw as currently inadequate. They also argued that this would be beneficial for Chinese economic development and rebalancing, as it would also mean a broader range of investor risk preferences and time horizons that could meet the needs of varied economic initiatives, including start-ups, infrastructure, established corporations, and

government entities. Given the government's commitment to improving corporate governance and environmental protection, some participants suggested that there might also be a place for ESG funds.

Participants agreed that Chinese capital markets were still in a developmental stage, accounting for only about one sixth of financial activity in the country. Meanwhile, despite concerns that households were overconcentrated in bank accounts and real estate, it was also noted that capital markets were highly retail-based—over 140 million people traded stocks, and retail investors accounted for about 40% of total trading while institutional investors only accounted for about 30%. This had led to high turnover and significant herd behavior, which both weakened price discovery and market stability. Overall, despite significant wealth accumulation, asset management remained at an early stage. Few older investors were aware of private funds, real estate investment trusts, P2P lending, etc., although they were growing rapidly. Moreover, it was argued that very few investors really understood risks; thus, there were important gaps that could be filled by asset managers and investment institutions that focused on retail investors' needs.

Many participants argued that it would be important to create a culture of investment in China. Creating a culture of investment would involve not only enabling a broader range of investment opportunities for retail investors, but also financial education and financial planning. For example, it was argued that many Chinese retail investors did not understand the benefits of diversification, including across asset classes or internationally, and that it would be important that financial services companies emphasize planning as they introduced new financial products.

Many participants saw the U.S. experience as offering useful lessons for China. Some argued that China should consider creating defined-contribution pension plans, with default enrollment in life cycle funds. This would create a new class of retail investors and increase capital market activity, while also protecting them from poor planning or misunderstanding of the financial products they were holding. Pension funds of various sorts would expand the institutional investor base, which these participants predicted would lead to less herd behavior and procyclical investing, as well as better price discovery and (perhaps) market transparency. Participants also noted the important role of regulation in developing Chinese capital markets and institutional investor base. In terms of capital market development, this would include continuing to improve standards of transparency and disclosure on the part of both corporates and capital market participants. Many participants also called for further progress in the development of hedging instruments, efficient trading and clearing facilities, rating agencies, and international capital mobility. With regard to institutional investors, several participants praised the role of regulators in enabling the development of venture capital and private equity funds, and encouraged them to move forward also on retail-oriented funds.

A number of participants advocated that increased access by international institutional investors should be an important element of Chinese market development efforts. They ar-

gued not only that the Chinese market offered attractive opportunities for U.S. asset managers, but also that greater participation by those asset managers would be beneficial both for Chinese retail investors and the development of financial services more generally. U.S. asset managers had extensive experience in providing financial products, information, education, and planning services that were geared to the needs of retail investors. They could also contribute to the use of investment and hedging strategies that could contribute to the development of Chinese capital markets.

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