

Insight Report

China Asset Management at an Inflection Point

In collaboration with Oliver Wyman

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Foreword



Kai Keller, Initiative Lead, The Future of Financial Services in China and Beyond, World Economic Forum Beijing Representative Office



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In January 2019, a group of senior leaders from across the Chinese financial system came together at the World Economic Forum Annual Meeting in Davos to explore ways to more closely connect the Chinese financial system to the global one. They saw a status quo that was unusual and concerning: a major global financial system developing somewhat in isolation.

An immediate opportunity for closer integration was proposed only a couple of months later by Chinese Premier Li Keqiang at the Forum's Annual Meeting of the New Champions, when he announced the accelerated relaxation of financial-sector ownership limits. This process presents amazing opportunities to asset managers, both Chinese and non-Chinese. At the same time, foreign and domestic players will each face challenges when trying to realize these opportunities.

While the industry is about to undergo a major transformation, this process will also affect society more broadly: Individuals will be able to invest their money in a more sophisticated and purposeful manner, and the real domestic economy will be able tap new pools of professionally managed money in the pursuit of future economic growth. This transformation is all the more important in a post-COVID-19 world.

The Forum is committed to providing a platform for leading voices from the Chinese and global financial systems to shape the ongoing transformation towards an industry that is stable, built around customer needs and able to contribute to future economic growth.

The leadership community convened by the Forum, and supported by its knowledge partner Oliver Wyman, began its exploration at a workshop at Fudan University's Fanhai International School of Finance in December 2019, then reconvened at the World Economic Forum Annual Meeting 2020. These meetings – hosted by the Forum's Platform for Shaping the Future of Financial and Monetary Systems – were followed by expert interviews and a community survey. Stakeholders from industry, the public sector and academia – both Chinese and non-Chinese – contributed their insights and unique perspectives.

This insight report presents the most important takeaways and learnings from these conversations, and points to issues and dynamics that deserve further exploration. It is thus neither an academic paper nor an industry primer. Rather, it presents an exploration of how three key dynamics underpinning the transformation process will shape the Chinese asset management ecosystem in the years to come: Pension reform, regulatory change, and the role of technology and fintechs. Some of the findings presented will be outdated by the time the publication is launched. This is the nature of rapid transformation and the Forum will continue to provide a platform to take this conversation forward.

We look forward to your contributions to this work, including reflections on this publication.

Executive Summary

The China asset management industry AuM reached ~RMB 112 trillion (~USD 16 trillion) by the end of 2019, representing a tenfold increase over the past 10 years and an unprecedented growth compared to many other markets. At the same time, a significant portion of Chinese wealth remains held in ~RMB 200 trillion (~USD 28 trillion) of bank deposits. These deposits are starting to be unlocked and will accelerate the growth and maturation of the asset management industry.

We are at an inflection point that marks the beginning of multiple waves of transformation – characterized by the shift of funding from the retail to institutional segment, opening up of distribution channels, proliferation of active asset managers, transition from shadow banking to capital-marketsdriven financing, and growing cross-border connectivity between China and global markets – ushering in a new era of asset management amid a slowdown in the domestic economy and policymakers' continued commitment to professionalize and liberalize the market.

The flurry of ongoing changes and resulting dynamics will translate into both opportunities and challenges. The group of experts and financial system leaders convened by the World Economic Forum prioritized three distinct but interrelated dimensions that will have a farreaching impact on the industry and are therefore the focus of this insight report:

 Accelerate pension reform to institutionalize the market: The government-backed public-pension-led system will come under increasing pressure given an ageing society, and sustaining investment returns amid the economic slowdown will be crucial to ensure retirees are well-provided for. There is an urgency to accelerate balanced development across all three pension pillars by doubling down on Pillar Three to safeguard the pension system's long-term sustainability. The asset management industry will play a critical role in supporting reform efforts. This includes driving adoption of pension among customers, supporting expansion into new asset classes both domestically and globally, and engaging as outsourced managers to achieve diversification and sustain returns.

- 2. Capitalize on asset management policy and regulatory change to accelerate industry development: The New Asset Management Regulation (资管新规) has made important progress towards the consolidation and restructuring of the existing regulatory framework, but significant issues remain on which policymakers and the industry will need to work together in order to resolve them. Policy and regulatory changes present new opportunities to accelerate industry development, including the exploration of new models to optimize the asset management business, build-out of institutional asset management offerings, and development of advisory capabilities coupled with wealth management businesses.
- 3. Achieve leapfrog transformation via fintech innovation: China has been recognized as an innovation hub for leading fintech players that are able to deliver a superior end-to-end customer journey. However, the next stage of innovation will be more extensive than the current focus on distribution and transpire across the value chain – by upgrading from "distribution-first" to "customer-first", enhancing investment management infrastructure to support professionalization, and improving liquidity by connecting financing and funding needs with next-generation marketplaces.

The future of asset management in China has immense potential. Realizing this potential requires striking a fine balance between driving reforms and managing unintended consequences. Lasting progress requires public-private partnership. Policymakers should lean on the industry's market and technical understanding in their design of a future-proof policy environment. Policy must not only enable innovation, but also ensure that the industry develops in a way that is stable and inclusive and thus benefits society at large.

1. This transformation wave is different

China's asset management industry has experienced unprecedented growth since its initial liberalization almost a decade ago. **Total assets under management reached around ~RMB 112 trillion (~USD 16 trillion) by the end of 2019, and the industry has entered a new era as "quasi" investment managers1 transform and professionalize** (see Exhibit 1). Continued growth on the back of economic development and wealth accumulation, coupled with industry transformation, presents enormous opportunities for both domestic and foreign asset managers to drive innovation.

To capture these opportunities requires an understanding of the underlying dynamics of China's economy and political priorities. As the Chinese economy shifts gear to the next stage of slower but more sustainable growth, the suboptimal practice of deposit-based asset allocation – totalling ~RMB 200 trillion (~USD 28 trillion)² – will prove to be increasingly problematic.

The development of a stable, sophisticated asset management industry is thus a necessary next step that will play a central role in "institutionalizing" domestic capital markets and ensuring that individuals have access to sustainable means, allowing them to plan for secure retirements and critical investments into, for example, health and education.

To fully grasp the dynamics driving the current industry evolution, one must recognize the unique characteristics of industry development in China to date and the overall capital markets structure. While the transformation process will drive some degree of convergence towards other markets, particularly Europe and the US, China will shape its own, somewhat distinct, trajectory:

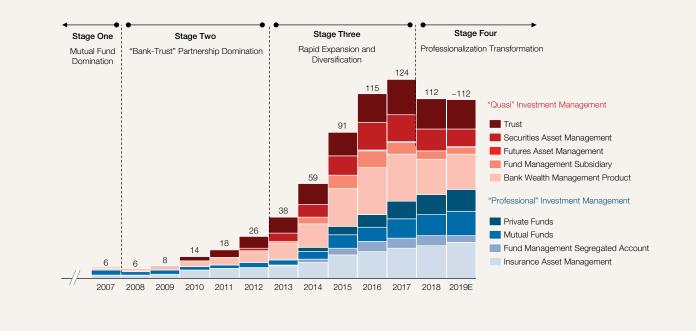
- Institutional segment to grow, while retail segment will remain significant: The institutional balance sheet remains sub-scale and retail investors dominate the market today, where the short-term return-chasing behaviour of retail investors often results in exacerbated market volatility.³ The institutional segment will play an increasingly important role as pension and insurance assets grow, but the retail segment will remain sizable. The ability to educate individual investors and tailor sales and product strategies based on their behaviours and preferences remains instrumental.
- Distribution channels to open up while distributors will remain influential: The retaildriven market has also led to the dominance of distributors, such as banks, that own customer relationships. As fintech distribution platforms proliferate and financial institutions build out wealth management businesses, some expect the distribution landscape to gradually migrate towards an open architecture approach. That said, the retail segment will remain heavily influenced by branded distributors that will further hone customer understanding using advanced data analytics.

¹ In this report, "quasi" investment management refers to bank wealth management products (largely delegated business), fund management subsidiaries, securities asset management, trust companies (mainly "channel business"); "professional" investment management includes private fund management, fund management companies (including mutual funds and segregated accounts) and insurance asset management (mainly "active investment")

² See Essay 1, The renminbi and China's capital markets: The geopolitical realities

³ See Essay 2, Financial literacy empowers personal wealth

Exhibit 1: Total assets under management of China's asset management industry (RMB trillion) [1]



Source: Asset Management Association of China (AMAC), China Banking and Insurance Regulatory Commission (CBIRC), and China Securities Regulatory Commission (CSRC), China Trust Association (CTA), WIND, Oliver Wyman Analysis

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Retail investors, many with speculative behaviours and gambling mindsets, contribute to ~80% of trading volume in the stock market. Micro investors (account balance smaller than RMB 100,000) make up ~75% of all brokerage accounts, and they lose RMB 2,000 per year on average.

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Zhang Xiaoyan, Professor of Finance, Associate Dean, PBC School of Finance, Tsinghua University

 Proliferation of active managers, while fragmented licensing landscape may not change overnight: The industry has been historically characterized by a high concentration of quasi-managers associated with shadow banking assets, and these players will transform into active managers amid policy reforms. The fragmented licensing landscape may continue in the near future under China's regulatory regime, but there will be increased specialization for each type of licence as the industry re-examines their proposition in the new environment.

 Capital markets to take over shadow banking, while trading innovations will be gradual: Investable assets have been largely constrained by an inefficient capital market structure with shadow banking as the primary vehicle to connect funding and financing. This is further exacerbated by limited diversity in financial instruments and a divergence of market standard versus the rest of the world.⁴ This will change as China deepens the "multilayered" equity and bond markets to serve the real economy. However, innovations such as short-selling and derivative products will be carefully aligned with the development and maturation of the institutional segment to safeguard retail investors' interests.

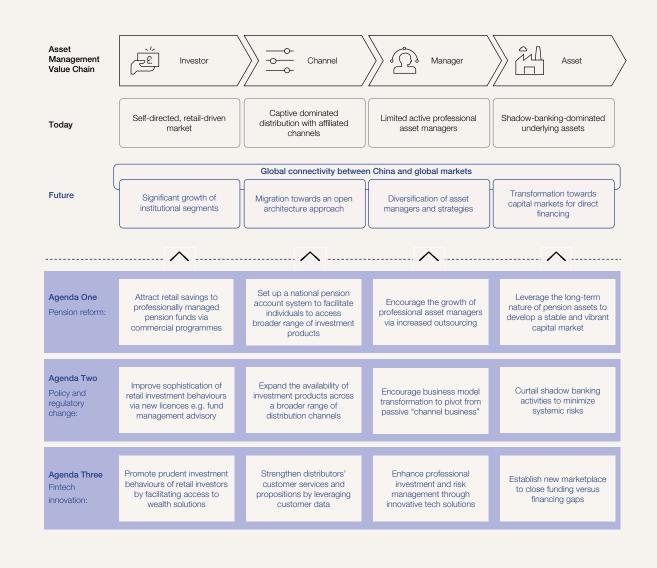
Market to become more globally connected, but some forms of crossborder controls will stay in place: Over the last decade, China has largely been an isolated market, but the relaxation of inbound restrictions, such as experimentations in the Greater Bay Area⁵ and index inclusions, will drive inflows of foreign capital. Similarly, as the domestic market finds it increasingly difficult to absorb the ~RMB 200 trillion (~USD 28 trillion) of savings locked up in bank deposits amid declining interest rates, China's managers will need to look abroad to construct a diversified portfolio. The gradual liberalization of cross-border flows will require deliberate considerations to navigate geopolitical subtleties, divergence in market standards between China vis-à-vis global markets, and protection of retail investors' interests. This process will be accelerated by increasing onshore participation of foreign players following the removal of the foreign investment cap in April 2020, which will improve global connectivity of the domestic market and fundamentally reshape the domestic competitive landscape and ecosystem by broadening participation of foreign asset managers as well as brokers, fund distributors, custodian banks and other players.

Considering these distinct characteristics of industry evolution in China, the Forum-led expert group identified three dynamics that it expects will have lasting implications for the industry for years to come: accelerating **pension reform** to institutionalize the market, capitalizing on **asset management policy and regulatory change** to accelerate industry development, and achieving leapfrog transformation via **fintech innovation**.

These three themes will be the motor shaping the five megatrends highlighted above (see Exhibit 2). For instance, the path from a reliance on shadow banking towards capital-markets-driven financing is paved by:

- Pension reform: the long-term nature of pension assets supports the development of domestic capital markets
- Asset management policy and regulatory reform: Shadow banking activities as facilitated by trust companies will be curtailed, leading to adoption of new business models such as wealth management
- Fintech innovation: Next-generation marketplaces will close funding and financing gaps

Exhibit 2: Five megatrends and three key agendas along the asset management value chain



Source: Oliver Wyman Analysis

Essay 1: The renminbi and China's capital markets: The geopolitical realities

By Cheah Cheng Hye and James Fok

It appears that central bankers have finally met their match in COVID-19. As governments have reluctantly grasped the baton and released an unprecedented wave of fiscal stimulus, many of us are now wondering: what next?

The bill for years of quantitative easing and fiscal profligacy will ultimately have to be paid. The US government deficit had already been budgeted to exceed USD 1 trillion in 2020;⁶ with the loss of economic activity and further fiscal stimulus stemming from COVID-19, that number will well exceed USD 3 trillion.

In anticipation of further debasement of fiat currencies, gold has surged, while cryptocurrencies such as bitcoin have been claiming a larger audience. Both of these options, however, have serious shortcomings as currencies for global trade and investment.

Has the renminbi's time now come?

It took two World Wars for the dollar to dislodge sterling as the pre-eminent global currency. Even if the twin shocks of the global financial crisis and COVID-19 can be seen as economically equivalent, it would be naive to think that the emergence of an alternative is down to economics alone. Matters of convertibility; openness and depth of capital markets; legal system; regulation; soft power influence; and even military capacity all come into play. China would also have to be willing. There are good reasons for China to shy away from this role for its currency. While the dollar's status has allowed the US to fund its vast fiscal deficits at extremely low rates, this has come at the expense of control of its foreign exchange rate. For a government that derives political legitimacy from its ability to deliver stability and consistent economic growth,⁷ this would be a huge risk – as highlighted by Japan's experience following the breakdown of Bretton Woods.

In addition, China's closed capital account affords the Chinese government significant influence over both access to China's market and the flow of its citizens' capital. These are huge levers of geoeconomic power in China's international policy.

Nevertheless, China faces some tough realities. China today finds itself in a similar position to the US in the 1970s; its ageing demographics and shift away from an export-led economy mean it faces steepening current account and fiscal deficits for the foreseeable future. Unless it can expand international demand for its sovereign debt, continued growth in Chinese prosperity is by no means assured.

Full renminbi convertibility would certainly help expand this demand, but the deck remains stacked against China. The international regulatory framework governing global financial institutions still assigns much greater risk weightings to Chinese securities, making them much more

⁶ Source: Congressional Budget Office, March 2020

⁷ This statement casts no judgement; in the absence of periodic popular democratic elections, this is a natural phenomenon in societies operating under a model of state capitalism.

capital intensive to hold. Illiquidity exacerbates this problem, since Chinese securities are not widely accepted as collateral in international markets. Even if international investors are willing to buy more Chinese credit, therefore, they will demand substantially higher interest rates.

Why would the West be willing to facilitate renminbi's rise?

China's vast domestic pool of capital would be one huge attraction. With its citizens' bank deposits sitting at USD 28 trillion,⁸ China represents the largest untapped pool of capital in the world. As China's recently minted middle classes turn to the capital markets to generate the returns to support their post-retirement lifestyles, China's own markets will struggle to absorb this and international businesses are eager to access this renminbi funding.

Facilitating such "portfolio" flows would also be far more palatable for countries receiving Chinese investment. Hitherto, the vast majority of Chinese outbound capital flows have taken the form of foreign direct investment by China's (largely statecontrolled) corporate sector, which raises concerns, including the level of state influence, technology transfer and the export of local jobs. Thousands of "Mrs Wangs" each buying a few shares in overseaslisted companies should raise no such concerns.

Many recognize that the overwhelming dominance of the dollar comes at a cost. Dollar supremacy has created a huge concentration risk, and the ripple effects of periodic dollar volatility can have devastating consequences for emerging markets forced to borrow in the greenback. Moreover, dominant positions in any market generally lead to abuses: a greater balance in the mix of currencies for trade and global finance would help reduce such risks.

A major driver of the dollar's rise to dominance was the US's role as the largest oil importer. That mantle has since passed to China, while the shale oil revolution has restored the United States' status as a major oil exporter. The uncomfortable truth is that stability in the Middle East today is far more economically important to China than to the US, which may appreciate being able to reduce some of its foreign commitments. In return, China would seek to pay for its energy imports in its own currency, while exporters would need a deeper international pool of renminbi assets to deploy the proceeds.

The practical challenges for China in allowing its citizens to partake in international capital markets lie in being able to moderate the pace of flow to avoid global economic disruption from a "big bang" event; ensuring appropriate levels of transparency to prevent large-scale tax evasion; and avoiding exposure to foreign financial sanctions. The Stock and Bond Connect programmes pursued with Hong Kong have largely addressed the first two challenges. The third remains unresolved; Chinese outbound portfolio flows today would be wholly dependent on a Western-controlled global custody network, leaving it heavily exposed to the type of financial sanctions that have been applied to Russia and Iran.

Notwithstanding the mutual interests at stake, frameworks of trust need to underpin any such changes, and this appears to be in short supply. Nevertheless, with the right regulatory framework and financial market infrastructure, these challenges can be overcome. While Hong Kong's image has no doubt been tarnished by the events of the past year, its role as a bridge between China and international markets looks set to endure, and may yet prove highly valuable in the renminbi's evolution.

The question of whether the renminbi will eventually "usurp" the dollar is, perhaps, the wrong question. The more important and immediate question is the greater international role for China's currency and capital markets, commensurate with its economic success and status. Properly managed, this could bring a better economic and geopolitical balance to the world.

As COVID-19 draws growing speculation about globalization's retrenchment, we should all hope that China is willing to engage, for this is not just about economics: increased financial and economic integration is our greatest guarantee of international peace.

2. Accelerate pension reform to institutionalize the market

The Chinese government has introduced a series of pension reform legislations since the issuance of the 12th Five-Year Plan for the Development of Aged Care Services in China [2] by the State Council in 2011. Although initially devised to cope with an ageing society and widening retirement savings gap, these reforms have profound impact on the broader asset management industry. Pension funds will emerge as one of the most important real-money managers in China, bringing much-needed long-term capital and stability to the domestic capital markets.

"

With an annual growth of 7%, China's retirement savings gap is expected to widen to ~RMB 830 trillion (~USD 120 trillion) by 2050.

World Economic Forum, *Investing in (and for) Our Future* [3], 2019

> China's pension system comprises the government-backed Pillar One (Basic Pension Programme and National Social Security Fund), employer-sponsored Pillar Two (Enterprise Annuity and Occupational Annuity), and individual-adopted Pillar Three (Commercial Private Pension). With a underdeveloped Pillar Two and nascent Pillar Three, China's pension system remains heavily reliant on Pillar One today.

> As the Basic Pension Programme's replacement rate is hovering at ~45% (vs a typical alert level of ~55%), there is an **urgent need to encourage pension adoption, generate sustained investment returns and accelerate balanced**

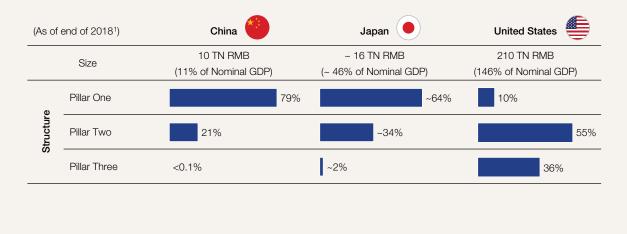
development across all three pillars by doubling down on Pillar Three (see Exhibit 3). This pillar is especially relevant as China is facing a growing ageing problem where the elderly population above the age of 60 will reach ~487 million [4] (or 35% of total population) by 2050.

The government has already made significant progress since the initial roll-out of the pilot commercial private-pension programme in select provinces in 2018. However, Pillar Three remains sub-scale given the programme is still in pilot stage and more work remains to fully implement it at a national scale. Tax reform will be one important enabler for the further growth of Pillar Three and deserves in-depth exploration. Such exploration, however, is beyond the scope of this paper.

The COVID-19 emergency will likely result in additional funding pressures for a number of provinces. During the first two months of the outbreak, China's Ministry of Finance allocated more than RMB 100 billion (more than USD 15 billion) for immediate mitigation and more fiscal stimulus is expected to further strengthen China's economy.

The latest support measure was announced by the State Council on 6 May and relief measures include reductions in value-added tax and social security contributions in order to boost consumption and stabilize employment. In light of potential future funding pressures resulting from health or other emergencies, balanced development and growth across the three pillars will be critical to ensure that pension obligations are met over the long run.

Exhibit 3: Comparison of China, Japan and United States pension systems



1. Japan Pillar One data as of end of 2018; Pillar Two and Three as of the latest data available across 2017 and 2019Q2;

Source: Ministry of Human Resources and Social Security of the People's Republic of China, National Bureau of Statistics; US Department of the Treasury, Investment Company Institute; Japan Government Pension Investment Fund, National Pension Fund Association; Oliver Wyman Analysis

Policymakers have rolled out multiple pilot programmes in the past to increase penetration, including reverse mortgage products in 2014, tax-deferred commercial pension insurance, and pension-target mutual fund products in 2018, but the uptake has been limited.

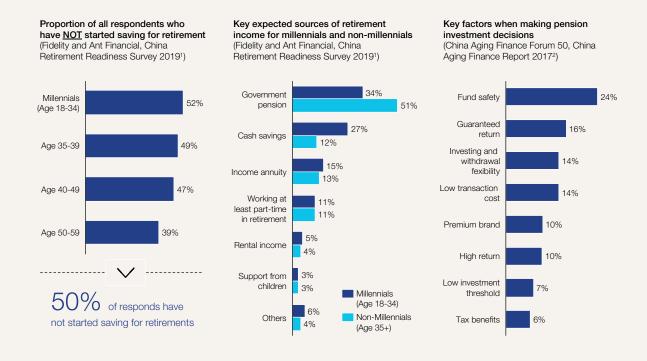
Addressing the underlying causes will need to go beyond fixing product design issues, and requires a top-of-the-house, strategic revamp of the existing pension system. Asset managers can play the role of driving adoption of pension among customers, supporting investment management in various asset classes both domestically and globally, and engaging as outsourced managers to achieve diversification and sustain returns.

2.1. Make pensions an integral part of society to improve life

Beyond developing attractive pension products, driving adoption will also require a shift in people's mindsets to move away from relying solely on the government (as Pillar One will not be sufficient to fund retirement) or their children and short-term speculation in stock markets and property investments (which may not be sustainable amid the recent slowdown).

Mindsets and investment behaviours in China are markedly different from those in other markets, and therefore require a different approach in driving pension adoption to ensure retirement planning becomes an integral part of life planning within Chinese society.

Exhibit 4: Pension awareness among Chinese individuals



1. Sample size N = 50,0502. Sample size N = 46,000

Source: China Retirement Readiness Survey 2019, China Aging Finance Report 2017, Oliver Wyman Analysis

The society's lack of awareness towards retirement saving and pension is reflected in Exhibit 4 and public-private collaboration will be crucial to drive mindset changes:

- Aligning on the "grand vision" of pension reform between policymakers and the industry to ensure a mutual understanding of key objectives and an implementation blueprint, enabling the industry to commit and channel resources accordingly.
- Developing attractive commercial pension solutions supported by a broad range of products with tax incentives, long duration, and stable and appealing returns to stimulate customer demand. Given the unique societal context of China, products should cater to people's behaviours to facilitate adoption, such

as the tendency of parents to rely on their children's support post-retirement or the use of savings to fund their children's education.

"

Pension reform will happen gradually. We need to take controlled steps to ensure stability of the whole system and of society.

"

Wan Tailei, Head, International Cooperation Department, National Association of Financial Market Institutional Investors (NAFMII)

 Establishing centralized infrastructure to enable seamless customer experience by codeveloping a national, fully integrated personal pension account system. The US Individual Retirement Account (IRA) system was introduced in the 1970s and had accumulated ~USD 8.8 trillion (~RMB 60 trillion) in pension savings by 2018, accounting for ~30% of total US pension funding. Introduction of such personal pension accounts in China – which allow individuals to easily access their pension with a single touchpoint by contributing funds, choosing from a broad universe of investment products and adjusting their investment portfolio – will broaden the appeal of commercial pensions.

- Building trust with the Chinese society as recent scandals, including fraudulent peerto-peer (P2P) platforms, have undermined consumer confidence and, as a result, individuals tend to be sceptical of financial innovation. Some form of governmentbacked or authorized commercial entities, for example rating agencies with a mandate to review and rate pension products, could help to inspire confidence.
- Launching public education campaigns to encourage nationwide discussions on retirement planning. The public sector should leverage its resources to mobilize outreach down to the community level to promote basic pension literacy across the nation.
- Accelerating adoption by using fintech to leverage consumers', and especially the younger generations', willingness to explore new solutions. Some emerging ideas include the use of gamification to improve awareness
 for example, by offering small monetary incentives for completing an interactive online course designed for retirement planning.

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Digitalization as a key trend will become ubiquitous, and younger investors naturally gravitate to firms that can tailor their content, tools and products to their specific needs. Specifically, from our retirement readiness survey, we learned that using infographics and interactive tools can help generate interest on pension issues and are one of the most effective approaches to talk and listen to our younger customers.

Daisy Ho, President China, Fidelity International

2.2. Encourage diversification of investment allocations

The Basic Pension Programme⁹ is allocating up to 80% of pension assets in bank deposits, **limiting the utilization of long-duration pension assets to generate higher returns and fund the domestic capital markets** (see Japan's allocation of pension assets to capital market in Exhibit 5).

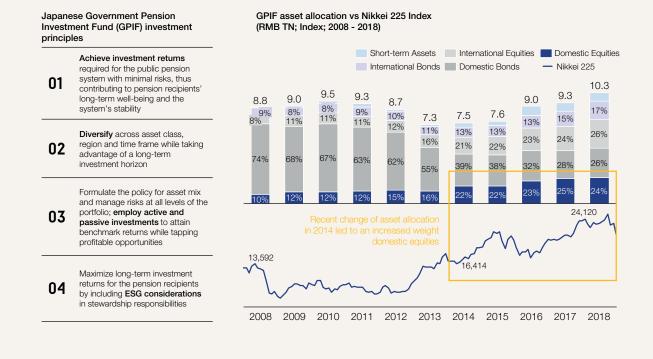
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Pension 'going offshore' can improve China's connectedness to global capital markets, without causing pressure to foreign exchange reserves due to short-term volatility. It will be a smart move.

Zhu Ning, Professor of Finance and Deputy Dean at the Shanghai Advanced Institute of Finance, Shanghai Jiao Tong University; Deputy Dean, National Institute of Financial Research, Tsinghua University

⁹ Some are collectively managed at provincial-level, while others are delegated to city- or county-level departments

Exhibit 5: Pension asset allocation and the capital market, Japan as a case study



Source: Japan Government Pension Investment Fund; Bloomberg, Oliver Wyman Analysis

More specifically, capturing three key opportunities will be instrumental to unlock the strategic value of pension assets:

Capital markets: Research has demonstrated a negative correlation between stock market volatility and the proportion of pension assets invested in the stock market [5] – but it is estimated that only ~3%-5% of China's pension assets are allocated to the A-shares stock market. With the current regulatory cap of 30%-40% allocation to stocks and securities funds across pension programmes, up to RMB 3 trillion (USD 0.4 trillion) of additional assets could be injected into the stock market.

During turbulent periods of heightened volatility, such as the 2015-2016 stock market crash and COVID-19 outbreak, institutional investors with a long-term, value-oriented investment mindset will be critical to stabilize the market and pave the way for the next cycle of sustainable stock market growth. In less turbulent times, institutional investors are also better positioned to price risks and deploy capital more effectively compared to retail investors.

Private equity can also benefit from additional pension investment. In developed markets such as the US, alternative investments make up ~30% of pension assets [6] and public pension funds are often among the largest investors in private equity funds. The steady flow of pension funds to private equity can support the real economy while delivering above-market riskadjusted returns [7]. Offshore assets: Amid declining onshore yields, strong retail demand for offshore exposure, and stringent outbound capital controls, there is significant potential to increase pension allocation to offshore assets. This can improve investment diversification amid a broader slowdown in the Chinese economy and drive adoption for consumers hoping to gain more overseas exposure.

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Whether or not we should allow pension funds to invest globally is an important decision to make. [...] Global diversification is [therefore] good for increasing returns and diversifies risks. [...] As for our country, whether pension funds can invest globally or not depends on both of these two factors: the opening up of our capital account and the healthy development of our capital market.

"

Zhou Xiaochuan, Former Governor of the People's Bank of China, published in *Caixin*, April 2020

Environment, social and governance (ESG)

factors: ESG is assuming an increasingly prominent role in the investment decision-making process of pension funds globally. Market studies have demonstrated that ESG-integrated sustainable investments can deliver superior returns in the long run [8] but an ESG focus requires adoption of a common, core set of metrics to align reporting. Investing in ESG can also finance underfunded but critically important sectors such as healthcare, creating lasting value for the broader Chinese society beyond pure financial returns.

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The absence of a generally accepted international framework for the reporting of material aspects of ESG and other relevant considerations for long-term value creation contrasts with the well-established standards that exist for reporting and verifying financial performance.

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World Economic Forum, *Toward Common Metrics and Consistent Reporting of Sustainable Value Creation* [9], 2020 Diversifying pension assets from bank deposits to other investment instruments has the potential to not only sustain returns, reduce the widening pension adequacy gap and improve assets and liabilities matching, but also promote economic growth in the real economy.

2.3. Broaden participation of a wider range of outsourced managers

While pension assets have yielded high singledigit returns in the past decade, sustaining such performance in the future will be increasingly challenging amid the slowdown of the Chinese economy. As such, there is a growing need to diversify asset allocations into various asset classes both domestically and globally, which will require **broadening the participation of external asset managers who bring different skills and capabilities.**

The pool of 28 managers (see Exhibit 6) has remained largely unchanged over the years. The most recent procurement window for the Basic Pension Programme was opened in 2016 when 21 managers were selected by the National Council for Social Security Fund (NCSSF).

To promote competition and safeguard pension returns, industry participants interviewed for this insight report expressed the need for policymakers to set up a more open mechanism for managers' selection – along with transparent evaluation and withdrawal procedures and more flexibility on investment mandates for outsourced managers (see Exhibit 7).

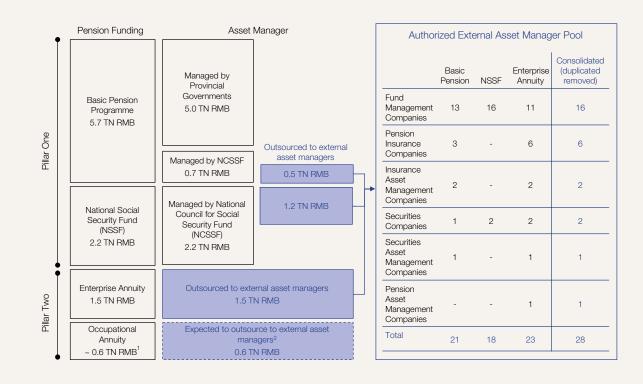
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Without competition, external asset managers within the pool are short of incentives to improve their performance. Meanwhile players outside of the pool, ineligible to compete, lack motivation to develop new capabilities.

"

Tang Jinxi, Vice-Chairman, Shanghai Chongyang Investment Management Co.

Exhibit 6: Asset managers of China pension funds



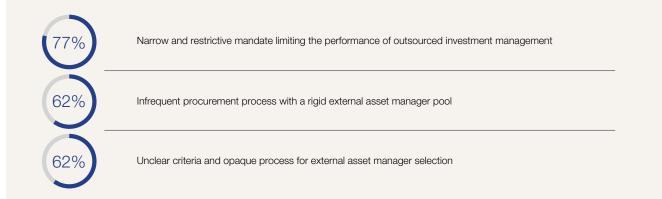
* As of end of 2018

1. Quoted from Xiaoyi Hu, President of China Social Insurance Association, at the China Aging Finance Forum (CAFF50) Shanghai Summit held in July 2019 2. Still in early stage of development. Launched in October 2014 and the first account was funded and invested in February 2019. Occupational annuity is expected to be operated and managed in a similar way as enterprise annuity

Source: National Council for Social Security Fund, Ministry of Human Resources and Social Security of the People's Republic of China, Oliver Wyman Analysis

Exhibit 7: Survey: What do you consider to be the top three issues with the existing outsourced investment management mechanism for Pilar One and Two pension assets?

(results are calculated based on the % of respondents that selected those issues)



1. Other responses: Lack of evaluation and withdrawal mechanism one the outsourcing mandate is awarded (31%); weak investment capabilities of authorized external asset manager (23%); private fund management firms are not eligible (7.5%); limited global exposure (7.5%) Source: World Economic Forum Future of China Asset Management Survey 2020: Oliver Wyman Analysis

Japan's Government Pension Investment Fund (GPIF), with ~RMB 10 trillion (~USD 1.5 trillion) pension asset under management in Pillar One, has chosen to establish an "Asset Manager Registration System", open for asset managers to submit applications throughout the year. More importantly, periodic reviews once every three years are in place with clear ramifications, including contract termination for underperforming managers [10].

Some World Economic Forum community leaders suggested an even more drastic procedure for China – decentralize the selection process by removing the manager pool altogether. Policymakers would only need to establish a high-level framework to ensure managers are meeting the minimum level of competencies and, within such a framework, owners of pension mandates should be empowered to freely evaluate and select external asset managers from a large pool of candidates.

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Foreign firms will need to develop specific approaches and strategies for these unique retirement market opportunities in China. Based on our annual retirement readiness survey, we believe more work needs to be done to enhance investor education on awareness, knowledge, and product understanding.

Daisy Ho, President China, Fidelity International

A more open manager selection process will be essential to foster competition and safeguard the healthy development of the pension system. For asset managers, the capabilities developed from managing Pillar One and Two pension assets can also be leveraged to support the roll-out of commercial pension products in Pillar Three.

Ultimately – and apart from the acceleration of a nationwide Pillar Three roll-out – the low penetration rate of pension funds in China is a two-way market problem: a concerted effort is required by both policymakers and the industry to address the supply side (more professional managers who can deliver attractive returns) as well as demand side (customer education and awareness) issues – and, most importantly, developing solutions tailored to Chinese individuals.

It will take an orchestrated effort to accelerate pension reform and ensure that sound retirement preparation becomes an integral part of life planning in China.

Essay 2: Financial literacy empowers personal wealth management

By Zhang Xiaoyan

Coupled with China's economic growth in recent years is the country's increasing per capita GDP, which is soon to break above USD 10,000 (~RMB 70,900) along with people's rapid growth in wealth accumulation. According to a 2019 survey of family wealth by *Economic Daily*, China's per capita family wealth by *Economic Daily*, China's per capita family wealth stood at RMB 208,000 in 2018, an increase of 7.49% from RMB 194,000 in 2017. Now it has become an important mission of capital markets to satisfy people's growing needs for wealth management in this new era.

Are individual investors successful in preserving and growing their wealth?

Our team (Jones, Shi, Zhang and Zhang, 2020) at the People's Bank of China School of Finance, Tsinghua University, recently finished a working paper on Chinese individual investors, or namely retail investors. The focus of our research is whether individual investors are capable of managing assets by themselves to preserve and expand their wealth.

To answer this question, we conducted a statistical analysis of billions of trades, from 2016 to 2019, in tens of millions of accounts in a major securities exchange in China. Figure 1 shows that individual investors contributed 80% of the total trading volumes.

In contrast, Figure 2 shows that individuals only held 21% of outstanding shares, compared with 17% held by institutional investors. The remaining 60% were held by underlying companies. This points to a defining feature of Chinese individual investors – they are frequent traders, not long-term shareholders.

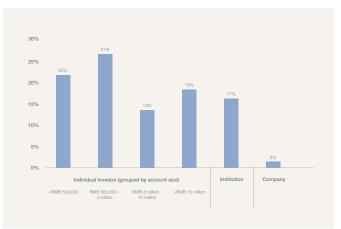


Figure 1: Breakdown of trade volume by investor (%)

Source: author

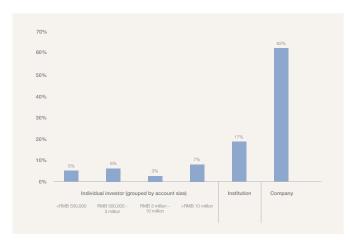


Figure 2: Percentage of shares held by different types of investors

Source: author

What is the overall performance of the individual investors in the Chinese stock market? Our study of their accounts reveals a strange phenomenon: due to their tendency to buy at highs and sell at lows, as well as to their weak capabilities in market timing and stock picking, individual investors often found stocks advance after selling and decline after buying.

When it comes to publicly disclosed information, individuals usually cannot sharpen their focus on information related to company fundamentals or process such information. Therefore, they are more likely to make mistakes in the choice of transaction time and future market direction.

Moreover, young male investors, who are often overconfident, paid large transactional fees due to excessive trading. Thanks to a combination of these factors, generally, most individuals fail to profit from the securities market, especially those with lower balances in their accounts. This study also points to weak wealth management capabilities in Chinese individual investors, who can hardly achieve the objective of preserving and growing their wealth in the stock market if they make investment decisions by themselves.

Given this situation, we offer two pieces of advice. First, the financial education of individuals should be strengthened to increase their awareness of trading risks and their understanding of company fundamentals.

Second, institutional investors as professional asset allocators can do a better job in balancing risks and returns and managing wealth for clients. For individuals who lack capabilities and time to correctly process huge amounts of financial information, they are advised to turn to highquality institutional investors to help them make investments, avert risks and grow wealth.

3. Capitalize on asset management policy and regulatory change to accelerate industry development

Decades of regulatory effort transformed China's asset management market from one dominated by fund management companies (FMCs) in the 2000s to one with a diverse set of players today (see Exhibit 8).

Owing to a segregated, legal-entity-based regulatory regime, the regulatory policies themselves and implementation by CBIRC and CSRC are different across asset management entities. As a result, **players holding certain licences could have a distinct competitive advantage over others in running their businesses, resulting in misaligned economic incentives that could bring about unintended consequences.**

It is critical to ensure a level playing field across business entities to minimize arbitrage opportunities. Equal treatment will ensure the healthy development of the asset management industry and empower industry participants to fully leverage their competitive advantages and freely compete and collaborate with each other.

"Channel" businesses are an example of market fragmentation that resulted from the past regulatory framework. Since 2004, commercial banks have started to fund off-balance-sheet activities with bank wealth management products (Bank WMPs) by channelling funds via trust companies and other entities, and the total balance of Bank WMPs reached ~RMB 30 trillion (~USD 4 trillion) by the end of 2017.

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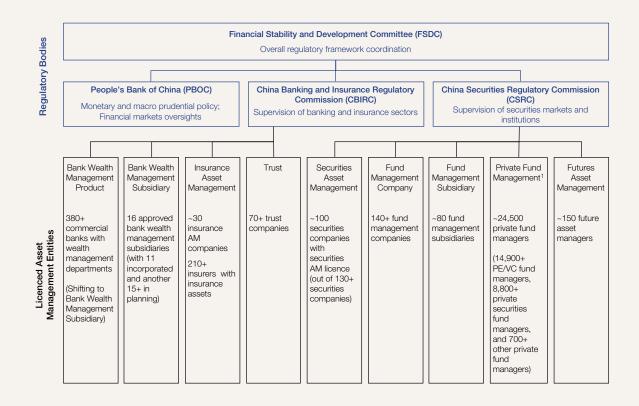
One cannot expect the 'problem' that took 20 years to develop to be resolved in just two years. As long as we strictly control the issuance of new asset management products and ensure compliance, the existing 'problem products' can be gradually phased out.

Sandra Lu, Partner, Llinks Law Offices

In April 2018, the China Financial Stability and Development Committee (FSDC) issued the *Guiding Opinions on Regulating the Asset Management Business of Financial Institutions* (the New AM Regulation) to strengthen regulatory oversight of China's disparate asset management products and encourage the development of prudent practices. This was an early but significant step towards the standardization of regulatory principles across multiple entities.

The Forum's community members' responses to a survey show that 85% of them are confident that the New AM Regulation is a step in the right direction. While this should be encouraging for policymakers, there are concerns over the regulation's implementation. Practical constraints, such as discrepancies in enforcement by different regulatory bodies, may complicate realizing the policy's main objectives and must be addressed.

Exhibit 8: China asset management regulatory bodies and licenced entities



* As of January 2020 or latest data available

1. Directly Supervised by Asset Management Association of China (AMAC) under China Securities Regulatory Commission (CSRC)

Source: WIND, China Banking and Insurance Regulatory Commission (CBIRC), China Securities Regulatory Commission (CSRC), Asset Management Association of China (AMAC), Oliver Wyman Analysis

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It takes time to train wealth managers and educate clients on the dynamics of this new era in asset management. There are no high-yield products, no guarantees anymore. We are glad to find customers are reacting to these developments proactively and positively.

"

Hou Lin, Senior Vice-President, CreditEase

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Every once in a while, windows of opportunities will open up during periods of significant regulatory change. Those who capture these opportunity windows will enjoy a significant tailwind.

Li Zhong, Chief Strategy Officer, Noah Holdings

In response to the New AM Regulation, the industry has begun a process of future-proofing businesses for the impact of the regulation. This process presents a unique opening for the industry to optimize set-ups, develop institutional asset management business to capitalize on the growth of emerging institutional segments, and innovate new wealth management businesses models.

Clearly more work needs to be done. However, the impact of the New AM Regulation is generally viewed with great optimism and provides a tailwind to the industry that now must capitalize on the new business opportunities the policy changes present.

3.1. Explore new models to optimize the AM business

Recent implementation of New AM Regulation and emergence of new licences provide a unique window of opportunity for the industry to reposition and streamline operations, such as consolidating resources across multiple AM entities under one financial conglomerate to deliver cost savings for both business and customers.

Currently, it is not uncommon for entities under the same financial conglomerate, for instance a bank wealth management subsidiary (Bank WMS) and FMC, to operate separately without deliberate coordination. Such set-ups are prone to inefficiencies and misallocation of resources. To build a **holistic business model that fully leverages synergies across multiple entities and licences and delivers one-stop-shop asset management solutions for customers**, several measures should be considered by the industry (see Exhibit 9):

 Set up a dedicated committee to ensure top-level coordination across multiple entities: This can ensure the development of complementary customer value propositions, channel strategies, product mixes and capability development plans. Such coordination under aligned oversight will lay the foundation for future optimization.

- Consolidate back-end operations to unlock cost savings through economies of scale: Primary barriers will be restrictions on data-sharing and usage across legal entities

 the industry can work closely with policymakers to educate them on potential risks and mitigants, co-build new infrastructure and develop policy to accelerate innovation.
- 3. Develop an integrated asset management business: This will require a redesign of coverage models and revenue-sharing mechanisms. Commercial agreements such as outsourcing management, for instance from Bank WMS to FMC, can be used to develop a synergistic business model. Ultimately, regulatory endorsement will be critical – the industry should work closely with policymakers to bring this vision to bear.

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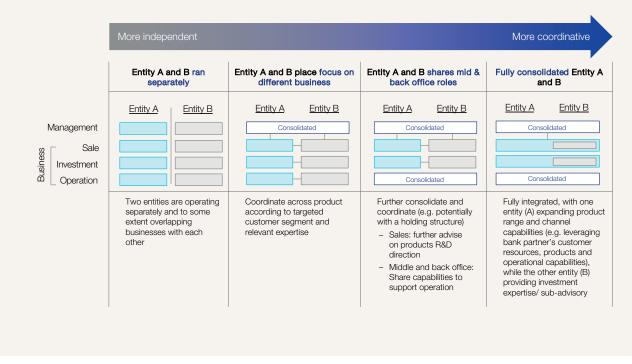
With no regulation at all for more than a decade until 2015, fintech's development occurred at the expense of traditional players, who operate under strict regulatory scrutiny.

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Zhu Ning, Professor of Finance and Deputy Dean at the Shanghai Advanced Institute of Finance, Shanghai Jiao Tong University; Deputy Dean, National Institute of Financial Research, Tsinghua University

With an optimized portfolio of asset management entities in place, financial conglomerates can reduce operational costs and improve efficiency, which could ultimately translate to cost savings for customers through lower subscription and management fees.

Exhibit 9: Varying degrees of consolidation for financial conglomerates with two licenced asset management entities



Source: Oliver Wyman Analysis

Beyond organizational set-up changes, there are additional opportunities to innovate business models that leading players could seize by leveraging recent asset management reforms. Such opportunities include for Bank WMS to set up outsourcing arrangements with FMCs to manufacture products (focus of Section 3.2), trust companies and investment advisory companies to develop advisory-driven wealth management models (focus of Section 3.3) and many-tomany distribution partnerships, such as between Bank WMS and other distributors to broaden customers' access to investment products.

3.2. Build out institutional AM business to capitalize on the growth of emerging players

As institutional segments, such as pension funds, insurance assets or inbound global capital, continue to expand amid policy reforms, asset managers are presented with a new set of opportunities – creating a virtuous cycle in supporting institutional investments while channelling long-term institutional assets to bring stability to capital markets.

Furthermore, shortly after the release of the New AM Regulation, regulators mandated that commercial banks establish Bank WMS as the licenced asset management entity to develop compliant new wealth management products [11]. Commercial banks can now participate in the asset management market – but as a newly launched business, Bank WMS face numerous challenges in developing the necessary capabilities to manage NAV based, mutual fundlike, wealth management products with equity or multi-asset underlyings.

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Leading Chinese commercial banks were strong in fixed-income investments. Their relative lack of equity investment talents and capabilities of these banks' wealth management subsidiaries are going to be temporary. With joint ventures set up with worldleading players, one can expect that domestic banks will learn and mature very quickly.

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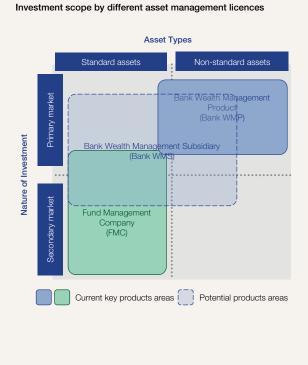
Eugene Qian, Chairman, UBS Securities Co., Ltd.

This will provide opportunities for players like FMC that have developed an extensive track record in managing equity and multi-asset portfolios through multiple investment cycles. They can either:

- Act as the outsourced external asset managers for domestic and foreign institutional investors such as sovereign funds and insurers and support them in making long-term investments
- Partner with Bank WMS as outsourced asset managers or to "export" securities investment and risk management capabilities via commercial agreements



Exhibit 10: Potential scenarios on competitive dynamics between Bank WMS and FMC



Stylized asset management landscape scenarios



Source: Oliver Wyman Analysis

This could lead to a unique "co-opetition" scenario where Bank WMS and FMCs are directly competing in serving mass-market retail customers while collaborating on other aspects (see Exhibit 10).

As China continues to open up, the influx of foreign players will inject global expertise to support the build-out of the domestic institutional AM ecosystem. This dynamic is a chance for leading domestic players to capitalize on the growth of the institutional segment and diversify away from their core retail operations.

3.3. Develop an advisory-driven wealth management business

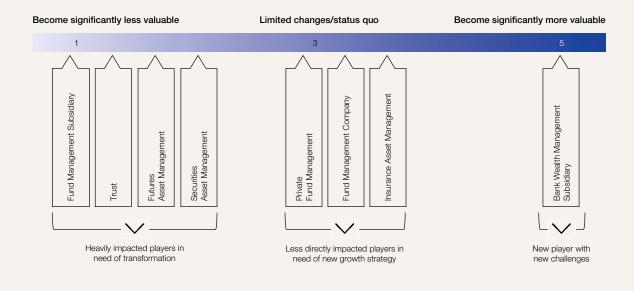
Since the first release of the Interim Procedures on Administration of Securities and Futures Investment Consultancy《证券、期货投资咨 询管理暂行办法》in 1997,¹⁰ policymakers and the industry have made significant progress to transition the AM ecosystem from a commissiondriven, product push model to an AuM-based, advisory-driven approach.

This transition carried particular implications for trust companies and the development of investment advisory companies:

¹⁰ Other policy guidance to note since then includes the Interim Provisions on the Securities Investment Advisor Business《证券投资顾问业务暂行规定》in 2010, and Measures for the Administration of Securities Funds Investment Consultancy Business《证券基金投资咨询业务管理办法(征求意见稿)》in April 2020

Exhibit 11: Survey: What will be the impact of the New AM Regulation on different asset managers?

(results are calculated based on the average score of respondents)



Source: World Economic Forum Future of China Asset Management Survey 2020, Oliver Wyman Analysis

- Transition from old business models: Trust companies pivoted away from a channelfocused business towards their original intent of providing family trust services and broader wealth management offerings underpinned by active asset management capabilities.
- 2. Development of new business models: The emergence of investment advisory companies under the new mutual fund advisory pilot programme《基金投顾试点》 gave birth to investment solutions tailored to customers' wealth management objectives.

Trust companies

A large proportion of asset managers – including trust companies, securities asset management companies, fund management subsidiaries and futures asset management companies – were heavily reliant on "channel" businesses in the last decade. Now heavily impacted by the New AM Regulation, they are finding themselves under tremendous pressure to transform (see Exhibit 11).

Taking trust companies as an example, as they move away from their legacy channel businesses,¹¹ developing active asset management capabilities will have to become a top priority and that includes risk management, due diligence and postinvestment management capabilities.

In parallel, the industry is also actively exploring the family trust business to capture the emerging needs of estate planning for UHNWIs and HNWIs as their licence enables them to provide a one-stop-shop style wealth solution offerings from investment management to handling administrative tasks as a trustee – a role that can only be performed by trust companies in China.

¹¹ Despite their shift in focus, trust companies could maintain their lending business to support the credit-starved Chinese corporates and SMEs as a non-banking financial institution

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It is hard for trust companies to compete in talent and capabilities against FMCs or securities AMs, or to compete in channel and clients against banks. Trust companies remain relevant, however, as a 'channel' for shadow banking, given they are the only licenced loan facilitator other than banks.

Zhu Ning, Professor of Finance and Deputy Dean at the Shanghai Advanced Institute of Finance, Shanghai Jiao Tong University; Deputy Dean, National Institute of Financial Research, Tsinghua University

> However, the development of family trusts has been slow in China due to a combination of complexities including trust assets registration, the nascent Trust Law and the lack of legal precedent to safeguard the trust's ability to isolate risks. The concept of "family trust" has only been officially defined since 2018 [12].

> Japan's experience might offer some guidance, as it has gone through a similar process to modernize its Trust Law. Similar to China, trust products in Japan in the past were primarily used as an investing and financing conduit. In response to its demographic shifts, Japan's Trust Companies Association, on behalf of industry, successfully lobbied policymakers in amending Japan's Trust Law on trust companies' role in estate planning in 2006. In 2009, trust companies in Japan started to offer explicit will-substitute trusts and ~150,000 arrangements were concluded within five years, by 2014 [13], with a penetration rate of more than 12% of Japan's high-net-worth families.¹²

As more and more Chinese families approach the transition point in passing wealth from the first generation to the next, family trusts are a distinct opportunity for trust companies to pivot from their existing core channel business and reposition themselves under the New AM Regulation by providing advisory-driven wealth management services.

Investment advisory companies

Understanding the regulatory direction of travel is important in order to anticipate long-term industry trends such as the migration away from a commission-heavy business model where financial providers' and customers' economic interests are often misaligned.

An example for this underlying shift is the recently announced mutual fund advisory pilot programme, which encourages an advisory-driven wealth management approach. Key considerations regarding the implementation of such business models will be further explored in Section 4.1.

The programme should be expanded beyond mutual funds and cover a broader universe of asset classes and investment products, such as equities and Bank WMS products, to enhance portfolio optimization abilities and tailor offerings to customers' risk-reward preferences. This will require further policy changes such as the full delegation of stock trading, which is not allowed today but presents an essential function to enable holistic advisory solutions.

Furthermore, propositions developed by investment advisory companies could also be applied to the management of commercial pension assets, which will be especially relevant in the build-out of Pillar Three.

The gradual but determined implementation of the New AM Regulation and emergence of new licences will bring a raft of opportunities as misaligned economic incentives are eliminated and the industry encouraged to explore alternative business models.

The entire AM ecosystem will enter a new era where market participants will find themselves directly competing in some areas and cooperating with each other in others. A fairer, less discriminatory regulatory regime will steer the industry towards developing differentiated propositions – a development that will benefit society at large through access to competitive products tailored to individuals' actual investment needs.

¹² According to Nomura Research Institute, there were 1 million to 1.2 million high-net-worth families in Japan in 2014, which is defined as families with a net worth of more than JPY 100 million (RMB 6 million)

Essay 3: Implications of diverging settlement standards

By George Jia

Since the launch of the Shanghai-Hong Kong Stock Connect in November 2014, Chinese regulators have announced a number of significant market-access reform schemes to attract more capital inflows from global investors. While many global investors have embraced these strategies, some have been facing operational challenges brought about by the lack of consistency between China's settlement arrangements and widely adopted global posttrade standards.

Domestically, in the Chinese equity market, shares are settled on T on a gross (trade-fortrade) basis while cash is settled on T+1 on a net basis, effectively a deliver-before-pay method whereby the delivery of securities happens before the corresponding transfer of funds. In the case of China's interbank bond market, shares and cash are settled on a trade-for-trade basis on the settlement date agreed by the counterparties (T, T+1, T+2 or T+3) using the delivery-versus-payment (DVP) method, whereby each trade settles individually by simultaneously debiting and crediting the cash and securities positions of the counterparties.

The non-DVP settlement mode in the equities market results in potential counterparty and market risk for global investors outside Asia. Time zone differences and China's tight settlement cycle create a further challenge, as market participants are only given 3.5 hours to settle their trades in the current settlement arrangement.

Over the past few years, to help the global investment community overcome these

operational challenges, market infrastructures have worked with the industry to implement enhancements. For example, in time for the expansion of the Connect programme to Shenzhen in 2016, Hong Kong Exchanges and Clearing Limited (HKEX) introduced the Special Segregated Account arrangement to allow the opening of a segregated account for pre-trade validation of share ownership, omitting the need for pre-delivery to the selling broker's account. More recently, the Bond Connect Corp Limited (BCCL) extended settlement cycles for interbank bond market trades to as late as T+3, making it more favourable for global investors.

Despite these collaborative actions, several operational challenges remain for global investors trading and settling trades in China, as the non-DVP and pre-delivery challenges in the equities market have only been partially addressed. The inclusion of Chinese stocks and bonds in major global indices in recent years makes things even more complex, as it places increased pressure on global investors that rely on a passive investing strategy to review their operational challenges for high volume cross-border transactions into China.

These operational constraints faced by global investors in the equites market have led industry lobbyists to push for Stock Connect transactions to be settled DVP on T+2, instead of the current non-DVP with pre-delivery process. There has been little action as Chinese regulators understandably focus on protecting and increasing the efficiency of capital utilization for domestic investors. For the interbank market, lobbying for enhancements in settlement arrangements is less challenging, because the Chinese Interbank Bond Market caters to both domestic and global institutional investors. This is demonstrated through the DVP settlement arrangement made available for global investors by China Central Depository and Clearing shortly after the launch of Bond Connect, and by the extension of the settlement cycle for Bond Connect transactions.

To correct the misalignment in settlement arrangements between the Chinese stock market and other global markets, one option is to offer different settlement arrangements for retail investors and institutional investors through the creation of a standalone trading board with a DVP settlement process. This option will allow the current T and T+1 settlement arrangement for retail investors to be maintained while an alternative T+1 or T+2 DVP settlement arrangement could be created for domestic and global institutional investors, assuming there is sufficient market demand and liquidity to justify a new trading board. This adjustment should not impact today's market practice while providing global investors with more time to manage the settlement process and avoid trade fails due to time zone differences.

Change to industry practices is likely to take time and can only happen with collaboration between market infrastructures, the industry, policymakers and regulators. In the meantime, the most effective way for market participants to cope with discrepancies in settlement methodologies is to make the post-trade process as efficient as possible by evaluating procedures and technologies and leveraging established best practices when possible.

4. Achieve leapfrog transformation via fintech innovation

Technology-driven innovation in the Chinese asset management space focused initially on distribution with the launch of Yu'e Bao by Ant Financial and Tian Hong Asset Management in 2013. More recently, innovation has started spreading to other parts of the value chain.

With the advent of big data and a thriving innovation ecosystem comprised of large techs and emerging start-ups in place to leverage that data, **the next wave of innovation-driven industry transformation is now taking shape** (see Exhibits 12 and 13). This wave will present a wealth of immediate opportunities to the industry and fintechs will play dual roles as "attackers" and "enablers" – competing and simultaneously collaborating with traditional financial institutions.

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Know Your Customer (KYC) is not enough anymore. We have upgraded to Know Your Intention (KYI), the modelling and interpreting of customers' intentions behind their behaviours.

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Joseph Wang, Chief Strategy Officer, Lufax Holding

The changing role technology companies and fintechs will play in the AM ecosystem reflects not only their innovation ability, but also a changing environment for disruptors across the entire financial services landscape. The recent explosive growth of financial technology firms was largely driven by a heavily retail-driven market and incomplete regulatory oversight. This is set to change with:

- Tightening regulatory environment: Arbitrage opportunities are rapidly disappearing as new regulatory bodies dedicated to fintechs are being introduced with the aim of ensuring all financial services providers, including fintechs, are properly licenced and regulated to safeguard the interests of retail customers.
- Introduction of the New AM Regulation: This policy puts a hard stop on all "guaranteed" investment products, hence reducing the effectiveness of a productdriven distribution approach currently widely adopted by leading fintech platforms (further discussion in Section 3).
- Introduction of new licences and qualifications: Examples include the mutual fund advisory pilot programme《基金投顾试 点》announced by CSRC in late 2019, which encouraged industry players to tailor investment options to customers' financial goals and accelerate the transition from a product-push model to an advisory-driven approach.

As a result of these dynamics, the next wave of fintech innovation is expected to transpire across the full value chain of asset management and pave the way for the emergence of "intelligent finance" [14]. Future innovation will drive a shift from a distribution-first to customer-first mindset, enhance the investment management infrastructure and support professionalization, and shape a next-generation marketplace that better connects funding and financing needs.

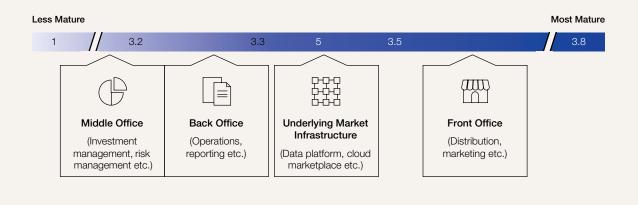
Exhibit 12: Asset management value chain: fund management as an example

		Front Office	r	N	liddle Office	ır	Back Office
	Marketing	Sales	Client Servic	e Asset Allocation	Target Screening	Trading	Performance Operations Control
Retail Market	Social media integration Client data collection Partnership with intermediaries	Non-traditional distribution channels Financial vertical full service supplier D2C channels New pricing model Sales team management	Omnichannel touchpoints Transparency and disclosures Advanced online advisory Open API for communicating with financial advisers	Automatic mandate and solution customization Advanced analytics on extended sets of data	Crowdsourced investment strategy Al-based investment research	Social platform trading solution New trading platform	Cost reduction via outsourcing and process optimization Cloud-based solutions Investment simulation and reporting
Institutional Market	Sales team reduction through sales activity automation	Sales team productivity management	Holistic assessment of liability, asset, and risks across financial statements	Assessment of potential investment targets with online data and advanced analytics	Understanding investment trends through data analysis Al-based investment research	Optimization of price, cost and channel through investment management software	Operational efficiency enhancement Real-time analysis of portfolio performance Cost reduction via outsourcing and optimization Client data and reporting portal Cloud-based solutions

Source: Oliver Wyman Analysis

Exhibit 13: Survey: How would you rate the level of maturity in the application of technology along the asset management value chain in China?

(results are calculated based on the average score of respondents)



Source: World Economic Forum Future of China Asset Management Survey 2020, Oliver Wyman Analysis

4.1. Upgrade from distribution-first to customer-first

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The development of robo-advisory in China faces multiple challenges, one example being the inability to develop a full view of the financial information and existing asset allocations of an individual due to data walls between financial institutions. The algorithm will not know the client well enough to provide him or her appropriate advisory. A related challenge is that Chinese clients also tend to be reluctant to reveal wealth, and when they disclose personal wealth information, they tend to underestimate, resulting in an inaccurate picture of their personal financial status.

Li Zhenghua, Executive Director, Ant Financial Research Institute

> One of fintech's core competitive advantages is the ability to accumulate mass customer data to inform business decisions such as targeted marketing. However, **fintech players will need to deepen their understanding of customers to enable a mindset shift from distribution-first to customer-first, and thereby take a lead role in the professionalization of asset management**.

This requires a focus on:

- Distribution: Sophisticated technology players are increasingly moving away from "cold data", for example, customer demographic surveys, to "hot data" that are continuously generated from every single customer touchpoint online. This shifted focus enables micro-segmentation models and fintech players' ability to better match customers and products via new offerings such as robo-advisory.
- Manufacturing: Fintech players are increasingly using both internal and external customer data to capture emerging trends and inform product development. Manufacturers now have the ability to provide products tailored to each individual customer,

for example, products that align with a customer's unique life stage and respective wealth management need.

3. Risk management: Leveraging advanced analytics, industry players can improve the sophistication of KYC/KYP matching engines to ensure that investment product recommendations correspond with customers' risk appetite. Granular data capturing customer behaviours can also provide insight into real-time market sentiments. Such information is valuable input to improve portfolio management and risk controls. If widely applied, the industry can also harvest customer insight to better predict and manage systemic risks, especially during volatile market periods such as the COVID-19 emergency.

An Al-enabled tech platform developed by a leading domestic fintech player serves as a good example of how to leverage customer data to empower the asset management industry: Drawing on 50 million+ fund investor data, its core functions include smart customer profiling, targeted content creation and purchase journey drop-out intervention.¹³ Since the launch of the platform in 2017, it has supported more than 40 funds in doubling their assets under management every year [15].

The joint venture set up between a Chinese tech giant and global asset manager under the mutual fund advisory pilot programme is another example of a positive step towards a customerfirst model anchored in robo-advisory offerings. Adoption of this and similar offerings by retail investors will be supported by favourable macro tailwinds including a growing, wealthy middle class and the maturation of online distribution. At the same time, significant challenges remain and require concerted efforts by the public and private sectors to overcome them. These challenges include:

- 1. Lack of customer education: The industry must play a greater role in educating customers to better understand their own risk tolerance and select the right products that are aligned with their long-term goals. This education process should go beyond a pure digital approach or reliance on robo-advisory. It requires complementing digital solutions with human interaction to uncover potential blind spots that are not fully captured by data. Such interventions will jumpstart a virtuous cycle of customers gaining a better understanding of their risk appetite and investment goals that will then enable institutions to develop more personalized offerings that go beyond generic investment products and allocations.
- 2. Difficulties in consolidating customer data across entities: Effective asset allocation requires a holistic view of customers' financials across multiple financial providers. Only such a complete view can enable asset managers to construct and re-balance investment portfolios dynamically based on evolving customer needs. Robo-advisory platforms developed overseas are now able to aggregate data from various financial institutions such as banks and brokerages to develop a full customer portrait and inform portfolio construction. Similar efforts will run into challenges in China given the current regulatory framework. Industry and policymakers need to work together to better understand potential risks of data-sharing and potential mitigants.
- 3. Customer information fragmentation: While customers generally have good access to product information via multiple online channels, these platforms tend to focus on only a few types of product offerings such as mutual funds or private funds. There is an opportunity to develop a cross-asset class and cross-product platform to improve information transparency and customers' access to multiple investment options.

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Finding consensus on the appropriate use of customer data is critical to balancing financial stability, innovation and economic growth. While a lack of customer data safeguards can weaken trust, over-regulation can also hinder innovation by restricting development of products and services that customers want. Managing key trade-offs and identifying areas of common ground will be critical to ensuring the benefits of customer data are realized across the financial services system.

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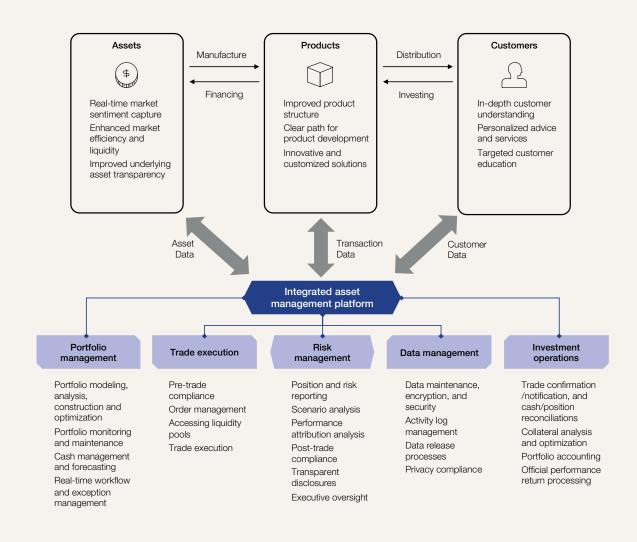
World Economic Forum, *The Appropriate Use of Customer Data in Financial Services*, September 2018

The continuous expansion in the use cases of big data and technology will empower both fintechs and traditional asset managers to improve their customer value proposition. However, the potential misuse of customer data will bring about risks related to data security, privacy and IP protection. These risks warrant further consideration by policymakers and the industry to identify solutions that do not stifle technologydriven innovation.

4.2. Enhance investment management infrastructure to support professionalization

Technology innovation in middle and back office functions has lagged efforts in distribution and marketing so far. This is rapidly changing and there are multiple success stories of industry leaders leveraging technology to **differentiate themselves against competitors through superior investment and risk management capabilities and, as a result, an improved ability to serve customer needs**.

Exhibit 14: Integrated fintech-enabled asset management platform



Source: Oliver Wyman Analysis

This expansion of capabilities and focus empowers both asset managers and technology providers:

 Asset managers must focus on further developing technology-driven research and portfolio management capabilities.
 For instance, improved real-time market information monitoring and processing capabilities empower managers to more effectively identify emerging risks and trigger "reactive" measures in secondary markets.
 Leaders in this space already depend on state-of-the-art systems to monitor stock and bond markets, a factor contributing to their products' outperformance.

 Technology providers must further develop new risk management solutions to standardize non-standard assets《非标资 产》 and improve risk pricing. Several fintech pioneers are actively experimenting with blockchain-based solutions to standardize underlying asset data for asset-backed securities, reducing information asymmetry and improving market efficiency in the securitization market. The opportunity for industry actors to become leaders in this space by embracing technology is real: most of the existing technology use cases in China focus on solving specific pain points in the asset management value chain and only limited end-to-end investment management solutions have been commercialized at scale.

Chinese players can also look abroad for inspiration: by combining in-house capabilities and third-party offerings, leading global managers in overseas markets offer end-to-end investment management solutions across all asset classes for institutional businesses (see Exhibit 14).

By tapping into the strong momentum generated by its extensive track record of innovation, China can very quickly catch up and, in some instances, even leapfrog other global markets. By leveraging consolidated data, advanced analytics and AI, fully integrated solutions will significantly improve the industry's investment and risk management capabilities and level of "professionalism".

Technology-driven integration thus presents not only a business opportunity, but also a significant contribution to strengthening the stability of the financial system.

4.3. Explore a next-generation marketplace to better connect financing and funding

Beyond their focus on driving innovation across the asset management value chain, leading fintech experts are also envisioning a fintechdriven marketplace that would complement traditional exchanges and over-the-counter offerings.

Fintech ecosystems could be built to better connect financing needs of small and micro businesses to available funding (see Exhibit 15). Such a marketplace would benefit the creditstarved system stakeholders and support the future growth and development of the Chinese real economy. P2P lending is an example of a fintech-driven marketplace that is worth studying – albeit the scale of the P2P lending business in China has been significantly downsized since 2018 in light of growing regulatory pressure. The downfall of the P2P lending business is a cautionary tale of how excessive growth with minimal regulatory oversight can result in the rapid build-up of risk.

However, the failure of P2P lending does not indicate all marketplace models are destined for a similar trajectory. For example, a number of open asset management platforms or 'one-stop wealth management platforms' have been successful in attracting trillions of RMB in assets. On the lending side, fintech companies, in partnership with banks, have been providing hundreds of billions RMB in MSME loans. Members of the Forum-convened expert community believe that, with the backing of a robust social credit system and sound policy guidance, a marketplace model could still be a valuable supplement to the existing banking system and meet the needs of bottom-of-the-pyramid users. The need of small and micro businesses to rapidly tap liquidity during the COVID-19 crisis illustrates the urgency for such innovative solutions.

"

Given the lack of significant entrance barriers, what happened in the P2P market was that 'the bad money drove out the good money'. The regulator should set appropriate standards and only allow qualified players who can effectively use fintech to reduce information asymmetry and improve risk pricing to participant in such a marketplace.

"

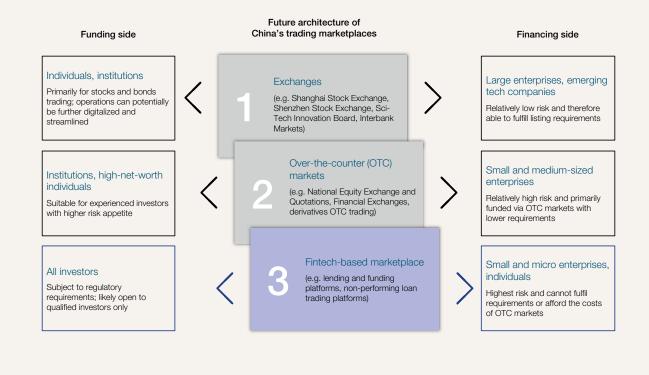
Li Zhenghua, Executive Director, Ant Financial Research Institute

"

Credit systems, for SMEs and for individuals, will be the core of such a marketplace.

Steve Lee, Head of China and Taiwan, HSBC Global Asset Management

Exhibit 15: Fintech-powered next-generation marketplace



Source: Oliver Wyman Analysis

Exhibit 16: Survey: What do you consider to be the most suitable approach to develop the next-generation fintech-based marketplace?

(results are calculated based on the % of respondents that selected those options)



of surveyed industry participants believe that fintech-player-driven efforts under a regulatory framework by the government is the best approach for developing a next-generation marketplace

1. Other responses: do not consider a new fintech-based marketplace is necessary (15%); government-driven effort with strong oversight and controls while leveraging fintech players' capabilities to build the marketplace (8%); fintech-led development where fintech players are given full freedom to innovate with minimal restrictions (0%); government-led development to build and run the marketplace (0%);

Source: World Economic Forum Future of China Asset Management Survey 2020; Oliver Wyman Analysis

Another marketplace use case is the nonperforming loan (NPL) challenge. Against the backdrop of a rapidly expanding NPL balance, the Supreme People's Court has allowed judicial auctions to take place via online channels to improve the efficiency of NPL asset disposals starting in 2016. Subsequently, provincial courts began to sign up for Smart Court partnerships with Taobao Auction and other online auction houses [16].

Some observers see an opportunity for a marketplace solution – an online electronic trading platform where NPL assets will be listed and traded. Such a platform could vastly improve transparency, lower costs and increase liquidity.

Although the industry is generally enthusiastic about recent market infrastructure innovations, developments such as the downfall of P2P lending businesses have reinforced the belief that sustainable fintech innovation benefits from a public-private dialogue or even partnership. Policymakers should be encouraged to develop regulatory frameworks that provide sufficient oversight and assurance for the broader public but, at the same time, leave sufficient room for fintech innovators to pursue innovation (see Exhibit 16) that drives future economic growth.

The fintech community will continue to accelerate the ascent of China's management industry if future technology-driven innovation manages to truly go beyond pure distribution. Technology players need to deliver tailored solutions for customers, develop new capabilities and propositions to improve industry professionalization, and drive increased market efficiency.

Essay 4: Greater Bay Area can be the sandbox for China's next stage of market liberalization

By Andrew Lo

From the launch of Stock and Bond Connect to the opening of its financial sector to more foreign investments, China has rapidly liberalized its capital markets with great results.

Yet, the sheer size of China's capital markets and the complexity of its financial system make opening and integrating with the rest of the world a hugely challenging task. China has traditionally resorted to controlled experiments – in the form of pilot programmes to mitigate potential shocks and secure flexibility to change course as needed. But they also come at the expense of policy optimality, policy consistency and, in some cases, policy confusion and frustration.

I believe that the Greater Bay Area (GBA) – a plan encompassing Guangdong province in southern China, Hong Kong and Macao – has what it takes to be the sandbox for China's next stage of market liberalization. The GBA has 71 million people, and a GDP per capita of USD 23,342.¹⁴ We can appreciate the region's diversity by considering tech hub Shenzhen and Guangdong's manufacturing prowess. Connecting with Hong Kong, an established global financial centre, allows the region to immediately tap into its world-class talent pool, sound legal framework and international best practices to help accelerate China's plans to liberalize its financial markets.

Specifically, I see several areas where the GBA could take the lead to help transform China's economic future, namely:

- 1. Developing China's pension system
- 2. Liberalizing cross-border financial products
- 3. Deepening the liquidity pool of offshore renminbi for payments

The region already offers a rich and deep pool of renminbi savings. The planned pension reform will release more retail investors' savings into the region's financial markets. Demand for welldesigned and globally diversified investment products and services is on the rise. Investment management industry participants in both Shenzhen and Hong Kong could play a critical role. The natural starting point is to allow GBA residents to invest in a wide range of investment and retirement products in the mainland and/ or Hong Kong. To swiftly address product and service gaps, the authorities could implement easy passporting of investment products (including cross-border products) that are already authorized in the GBA's constituent jurisdictions.

Capital must be able to flow and convert freely within the GBA. Reinventing the wheel is unnecessary – China has already embarked on several localized schemes to liberalize its currency and markets, so we can start by broadening their scope within the GBA. If oversight of Chinese offshore accounts can be devolved to corporate fiduciaries – starting with the four largest state-owned Chinese banks, for example – I believe that funds can flow more freely within the region. Lastly, competition must be encouraged to fuel innovations and help lower the cost of products and services to benefit consumers. The authorities in mainland China and Hong Kong could collaborate to level the playing field for existing capital market participants onshore and offshore within the GBA. This would help foster more vibrant and global institutional participation, thereby deepening China's financial markets to pave the way for greater internationalization of the renminbi.

5. Conclusion

Pension reform, asset management policy and regulatory change, and fintech innovation are all big topics that will impact not only the China asset management industry, but also society at large for years to come.

For instance, accelerating pension fund adoption will only be successful if efforts manage to go beyond simply introducing new products. Adoption requires a public-private partnership mindset – a fundamental departure from the status quo that leverages technology to drive awareness and education (see Exhibit 17). The industry transformation process is real and so are the opportunities this transformation presents

Exhibit 17: Summary of findings and considerations for the industry and policymakers

	Opportunities	Roles for Industry	Roles for Policymakers
Pension Reform	Make pension an integral part of society to improve life	Drive product innovation and consumer education tailored to Chinese context (e.g. leverage fintech ecosystems)	Drive industry standards and infrastructure development and spearhead private-public collaboration
	Encourage diversification of investment allocation	Tailor investment strategies for pension investment; actively educate pension managers about investment trends	Encourage managers to allocate to capital markets and other long-term investments (e.g. ESG)
	Broaden participation of a wider range of outsourced managers	Actively participate as outsourced asset managers to provide healthy competition and new investment management ideas	Encourage broader manager participation by embracing a more open manager selection mechanism
Asset Management Reform	Explore new models to optimise the AM business	Simplify org. structure and specialize in businesses with competitive advantages to deliver cost savings to customers	Harmonize regulatory discrepancies where appropriate to guide FS on managing multiple licenced AM entities
	Build out institutional asset management business to capitalize on the growth of emerging players	Develop longer-term investment capabilities for emerging insti players (e.g. pension, bank WMS) and inbound capital	Strike the right balance between pushing for reforms vs other priorities Foster a more open environment for different asset players to specialize, professionalize and thrive
	Develop an advisory-driven wealth management business	Explore alternative business models amid regulatory reforms and economic slowdown	
Fintech Innovation	Upgrade from distribution-first to customer-first	Actively leverage customer insight to develop bespoke products, investment advice and risk management	Evaluate regulatory framework to promote new fintech innovation and minimize excessive systemic risks
	Enhance investment management infrastructure to support professionalization	Double down on infrastructure and tools development to support more sophisticated investment management	Spearhead the development of necessary infrastructure (e.g. credit scoring systems) to enable new finitech innovation
	Explore next-gen marketplace to better connect financing and funding	Consider emerging marketplace concepts to improve liquidity of various asset classes and support the real economy	Explore and guide creative use of fintech to achieve policies imperatives (e.g. dealing of NPL)

Source: Oliver Wyman Analysis

to domestic players as well as non-Chinese market entrants. A thriving, innovative industry facilitating effective capital allocations and, at the same time, providing sustainable returns to investors and retirement savers is a fundamental underpinning of societal well-being and future economic growth.

To benefit all stakeholders, the current wave of transformation must be shaped through publicprivate dialogue. The Forum is committed to providing a platform facilitating explorations between policymakers, innovators and industry leaders – both Chinese and non-Chinese. This publication is a first contribution to this critical dialogue and points to a number of dynamics that deserve further exploration.

As the Forum-convened leadership group will continue its important work of shaping the future of financial services in China and beyond, it is committed to reflecting on the multitude of perspectives from across the ecosystem and welcomes the active engagement of all relevant stakeholders.



Glossary

Abbreviation	Long form	
AM	Asset management	
AuM	Asset under management	
Bank WMP	Bank wealth management product	
Bank WMS	Bank wealth management subsidiary	
CBIRC	China Banking and Insurance Regulatory Commission	
CSRC	China Securities Regulatory Commission	
Fintech	Financial technology	
FMC	Fund management company	
GBA	Greater Bay Area	
KYC	Know Your Customer	
KYI	Know Your Intention	
КҮР	Know Your Product	
P2P	Peer-to-peer lending	
PBOC	People's Bank of China	
PFM	Private fund management	

About the survey

The World Economic Forum's Future of China Asset Management Survey referred to in this report is based on web surveys conducted in April 2020. The survey respondents are asset management industry practitioners and subject matter experts including domestic Chinese financial institutions, global financial institutions, academic institutions, think tanks, regulatory bodies, and industry groups.

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Endnotes

[1] Oliver Wyman, "Global Asset Managers In China: Riding The Waves Of Reform," 2018.

[2] The State Council of People's Republic of China, "中国老龄事业发展"十二五"规划," 2011.

[3] World Economic Forum, "Investing in (and for) Our Future," 2019.

[4] China National Committee on Aging, "中国60岁及以上老年人口2.41亿," People's Daily,

27 February 2018. [Online]. Available: http://paper.people.com.cn/rmrbhwb/html/2018-02/27/ content_1838506.htm. [Accessed 2020].

[5] A. Thomas, L. Spataro and N. Mathew, "Pension Funds and Stock Market Volatility: An Empirical Analysis of OECD countries," *Discussion Papers, E-papers del Dipartimento di Economia e Management – Università di Pisa*, no. 162, 2013.

[6] Willis Towers Watson, "Global Pension Assets Study 2019," Thinking Ahead Institute, 2019.

[7] CreditEase, "发挥私募股权在我国养老资产配置中的作用",《2019中国养老金融发展报告》, 2019.

[8] R. G. Eccles, I. Ioannou and G. Serafeim, "The Impact of Corporate Sustainability on Organizational Processes and Performance," *Management Science*, vol. 60, no. 11, 2014.

[9] World Economic Forum; Deloitte; EY; KPMG; PwC, "Toward Common Metrics and Consistent Reporting of Sustainable Value Creation," 2020.

[10] M. Usuki, "Outsourcing public pension investment to private sector managers - the case of Japan," Bangkok, Thailand, 2005.

[11] China Banking and Insurance Regulatory Commission, Administrative Measures *On Wealth Management Subsidiaries*, 2018.

[12] China Banking and Insurance Regulatory Commission, 信托部关于加强资产管理业务过渡期内信托监管工作的通知, 2018.

[13] J. C. Fisher, "The Trust as Trojan Horse: A Comparative Perspective on Trust's Role in Japanese Succession Law," *Iowa Law Review*, vol. 103, no. 5, 2018.

[14] People's Bank of China, *Fintech Development Plan* (2019 – 2021), 2019.

[15] ChinaFund, Analysys.cn, ""智"启数字时代,从产品金融走向生态金融-中国基金金融科技发展白 皮书2019," Analysis.cn, 2019.

[16] Zhongtai Securities, "个人不良资产处置行业调研报告 - 金融科技在不良资产处置行业的应用," 2019.



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