



THE BOSTON CONSULTING GROUP



Global Digital Wealth Management Report 2018

Building Trust and Reshaping the Value Chain with Technology

The Boston Consulting Group in collaboration with Lufax

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Preface

Alongside technological advances and the explosion in the financial requirements of the population, the internet finance world has flourished in China over the past five years with digital wealth management in particular experiencing remarkable growth. As of 2017, total online sales of wealth management products in the four major markets – the United States, China, the United Kingdom and Singapore – had reached \$6 trillion, and in China alone it exceeded \$2 trillion. China already occupies a leading position in terms of both the size of its wealth management market and online sales penetration rate, ranking second only to the United States.

This rapid development has given rise to numerous new concepts, models and institutions and, at the same time, also led to growing pains and potential risks. Although it has tremendous opportunities, China's digital wealth management industry is also confronted with many challenges. These are, specifically:

- **Market environment.** Regulation is tightening, and new asset management rules will encourage the development of a more orderly and standardized market while at the same time challenging existing business models.
- **Clients.** Unsophisticated investment behavior has not been altered by the development of online wealth management. The transformation of the market is likely to create uncertainty among clients, which may lead to an erosion of the traditional trust for institutions and products.
- **Competitive landscape.** Traffic-based players, vertical players, digitalized traditional financial institutions, and integrated players are all exploring digital wealth management models, but they face different challenges in using technology to create added value.

The year of 2018 will be crucial for the needed radical transformation of China's wealth management market. The complex and ever-changing environment has created confusion and raised questions. What is the essence of wealth management? What key changes has technology brought? How will technology reshape the market? We believe that at this critical juncture it is necessary to re-examine what is exactly meant by digital wealth management from the perspective of value creation, to understand the current state of play in China's digital wealth management market. In this way, we can be better prepared for the future.

- **Redefinition of digital wealth management:** neither pure online wealth management nor pure cash management, digital wealth management differs from traditional wealth management in terms of its value proposition, clients, products, services and channels. Technology will drive changes in the market.
- **The core and essence of wealth management:** trust is at the core of wealth management, and the essence of it is wealth preservation and enhancement.
- **The role of technology:** technology helps rebuild trust, enabling a more inclusive, professional and open wealth management model.
- **Six key success factors to win in the market:** defining an unambiguous value proposition to always act in the best interests of clients, building a more open platform, establishing a robust client value management system, developing professional investment research and advisory capabilities, improving technological functionality and building an agile organization with various different teams offering comprehensive services.

clients who are sensitive to price, highly value convenience and embrace innovative technologies. It provides them with relatively standard, easy-to-understand products as well as an efficient, smooth and transparent experience through online, mobile video, robot and other applications.

As such, digital wealth management is sharply distinguished from **traditional wealth management** in terms of value propositions, clients, products, services and channels. (See Exhibit 2.)

Exhibit 2. Digital Wealth Management vs. Traditional Wealth Management

	Digital wealth management	Traditional wealth management
 Value proposition	<ul style="list-style-type: none"> Data- and tech-driven E2E client journey reinvention 	<ul style="list-style-type: none"> Asset allocation and sales based on the experience of RMs and investment advisors
 Clients	<ul style="list-style-type: none"> Clients who are price-sensitive, highly value convenience and embrace innovative technologies 	<ul style="list-style-type: none"> Clients with higher investable assets Higher demand on integrated services
 Products	<ul style="list-style-type: none"> Easy-to-understand, information-transparent, more standardized products 	<ul style="list-style-type: none"> Wide variety of products Sophisticated, customized products as key differentiator
 Services	<ul style="list-style-type: none"> Unlimited by time and place Enhanced client experience of greater efficiency, convenience and transparency 	<ul style="list-style-type: none"> Value-added services with a human touch Close client relationship and exclusive services as core value
 Channels	<ul style="list-style-type: none"> Via the internet and mobile devices By means of videos and robots 	<ul style="list-style-type: none"> Primarily physical branches, supplemented with online channels

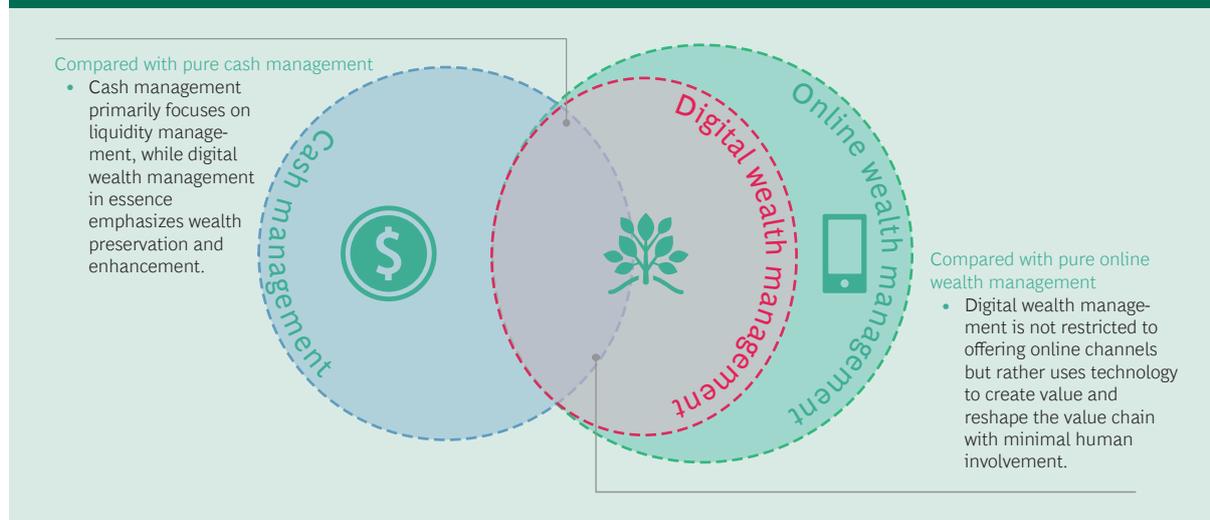
Source: BCG analysis.

Although **different from pure cash management**³ that primarily focuses on liquidity management, digital wealth management still emphasizes wealth preservation and enhancement, leveraging technology to provide optimal asset allocation with greater efficiency and transparency. **Unlike pure online wealth management**, digital wealth management is not restricted to offering online channels⁴ but rather uses technology to create value and reshape the value chain with minimal human involvement. (See Exhibit 3.)

³ Cash management: e-wallet account-based short-term investment services to enhance cash returns.

⁴ Online channels: sale/trading and information provision of wealth management products via webs, mobile apps and other tools.

Exhibit 3. Digital Wealth Management vs. Pure Cash Management and Pure Online Wealth Management



Therefore, the combined size of the world's major digital wealth management markets, though not easily quantifiable, should be smaller than that of online wealth management markets.

1.2 Big Data, AI, Blockchain, and RPA Transform Wealth Management Across the Value Chain

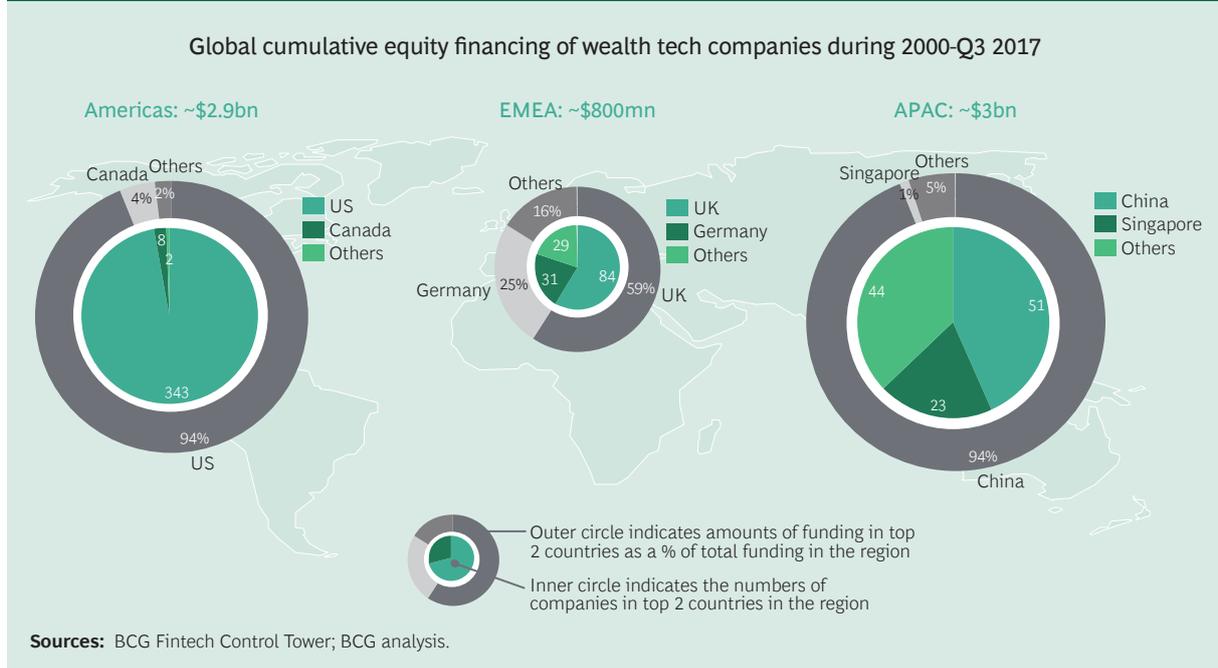
1.2.1 Technology in Digital Wealth Management

Digital wealth management is already an irreversible global trend. In the capital markets, annual funding received by wealthtech⁵ companies surged from less than \$100 million in 2010 to \$2.27 billion in 2016. By the end of Q3 2017, cumulative funding in the wealthtech space had grown to \$6.7 billion. There are already more than 600 wealthtech startups worldwide. Chinese wealthtech players have received the highest cumulative global funding, accounting for 40% of the total. (See Exhibit 4.)

Besides wealthtech start-ups, traditional wealth managers have also shown great enthusiasm for wealthtech. Total fintech investment by the world's top ten banks exceeded \$3.6 billion from 2012 through 2017. In the artificial intelligence (AI) field, the world's top financial institutions have closely followed the pattern set by leading investment

⁵Wealthtech: fintech dedicated to innovative wealth management and retail investment businesses.

Exhibit 4. Global Cumulative Equity Financing of Wealth Tech Companies During 2000-Q3 2017

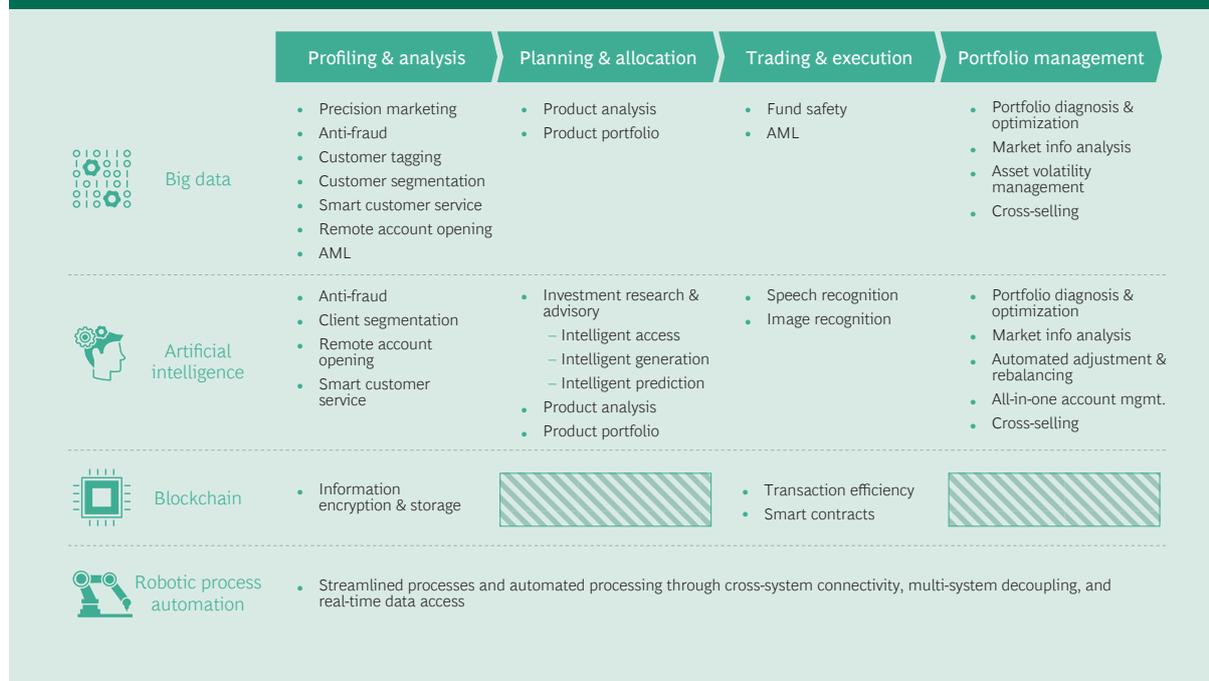


companies. Goldman Sachs, for example, has invested around \$400 million in AI – more than any other firm in the world – covering payment, insurance, wealth management and consumer finance, among other fields. In 2014, it invested in Kensho, which replaced investment banking analysts with AI in data analytics and mining, using algorithms to analyze the correlations between events and asset prices to support investment decisions. In the same year, Goldman Sachs also invested in Motif Investing, an innovative social stock trading application. Instead of simply recommending individual stocks, according to the traditional fund manager-led model, the app offers powerful self-service tools for users to build thematic investing solutions, as well as social media features so users can share, discuss and optimize their portfolios.

1.2.2 Four Technologies Fundamentally Transform the Wealth Management Value Chain

Technology helps reduce costs, improve efficiency, expand the client base, enhance experience and control risks. Top management firms around the world are not blindly pursuing technology. They are leveraging technology to reinvent wealth management front to back across the entire value chain, bringing both efficiency and a client experience which is much superior to that offered by the traditional wealth management mod-

Exhibit 5. Application of Four Technologies Across the Wealth Management Value Chain



els. It also brings important new lessons in their understanding of clients, product design and operational control. Some important changes in the four steps of the wealth management client process are explored below. (See Exhibit 5.)

Client profiling and analysis — Know Your Customer (KYC): Traditional institutions understand their clients' basic information, risk appetite, and wealth management needs through KYC steps and then match qualified investors with suitable products. However, this process is not always illuminating. Some firms conduct a cursory KYC which is designed only to satisfy regulatory requirements, while others don't achieve accurate KYC results due to the inadequacy of their systems. The value of wealthtech in KYC primarily resides in four aspects: risk control, client profiling, marketing and client experience. The KYC system of Lufax, a subsidiary of Ping An Group, exemplifies how technology has made a difference.

- More efficient risk control:** Before establishing business relationships with clients, most traditional wealth managers require off-line interviews and identity authentication to detect fraud and money laundering risks. In contrast to the traditional approach, Lufax's KYC system allows more efficient tech-driven risk control in some overseas markets. In Singapore, for example, regulators ask wealth management

clients to provide household bills as proof of the residential address for account opening, which leads to increased costs and an often unsatisfactory client experience. Lu International, Lufax's international business platform, has recently employed a set of technologies including facial recognition and geospatial big data, which enable it to remotely verify permanent addresses. Ongoing monitoring helps identify transactions and abnormal fund flows for anti-money laundering purposes, thus eliminating the need for face-to-face account opening.

- **More suitable matching:** Traditional wealth managers typically complete KYC by asking clients to fill out questionnaires or sit through interviews with relationship managers (RMs). The results often leave a lot to be desired as assessment of clients' relative wealthiness, risk appetite and general suitability is largely dependent on the quality of the questionnaires, clients' comprehension of the questions, the ability of clients to express clearly their attitudes to risk and the expertise of RMs.

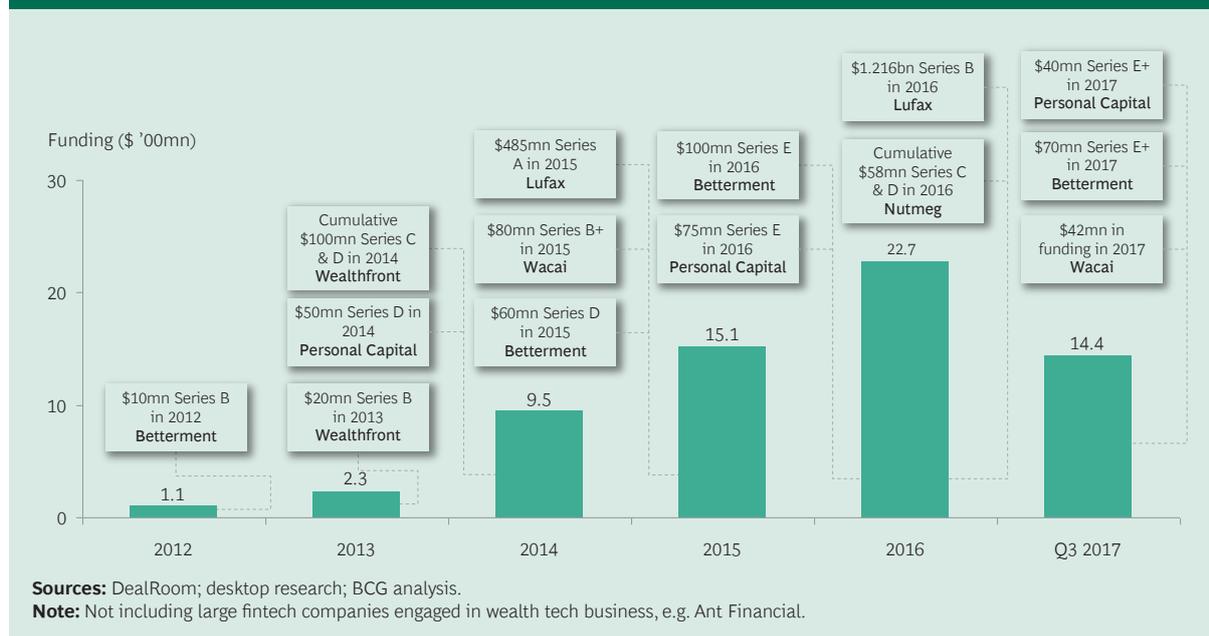
But some leading institutions have entered KYC 4.0 phase. Lufax, for example, can assess investor suitability more accurately through big data analytics of wealth levels, investment experience, risk appetite and liquidity demands. More basic information, behavioral data, spending data, investment history, and credit information of registered clients is also sourced from external partners in real time. Its KYC model is tested with a sample data of current clients with accuracy constantly assessed through A/B testing. After three years of model training, Lufax is now able to block 30% of unsuitable investments as risk alerts are elicited when clients with low risk appetite attempt to invest in high-risk assets.

- **More precise marketing:** With constantly improving data and machine learning capabilities, leading institutions are exploring ways to personalize products for clients.
- **More convenient experience:** As blockchain technology matures in the future, industry players can store each client's unique KYC information in the form of a wealth fingerprint. Institutions can now, with the assent of clients, access information with encrypted codes, saving clients the hassle of repeated tests at different institutions.

Planning and allocation — robo-advisory⁶: Robo-advisory in planning and allocation is the most common application of technology in wealth management. As shown in Exhibit 6, most wealthtech companies receiving relatively higher amounts of funding in 2012-17 are active in the robo-advisor field.

⁶Robo-advisory: algorithm-based advisory services offered by virtual robots, as opposed to traditional advisory services provided by human financial advisors.

Exhibit 6. Global Funding of Wealth Tech Startups During 2012-Q3 2017



In traditional wealth management, investors rely on the expertise and experience of investment advisors or fund managers for sophisticated asset allocation solutions, which imposes limitations on service coverage and relatively high service costs. This means only high net-worth clients have access to wealth management services. Robo-advisory is innovative in two aspects: on the one hand, transparent and easy-to-use online interfaces reduce the cost of human interaction and also integrate data and information. On the other hand, big data and machine learning, combined with diversification, the Modern Portfolio Theory and other wealth management theories, produces faster and more precise portfolio decision making than can human advisors.

Currently there are four kinds of advisory business models in global markets, each with its unique features in terms of target customers, core value propositions, main products, transaction decision makers and pricing. These are robo-advisors, cyborg advisors, pure advisors and advisory platforms. (See Exhibit 7.)

- Robo-advisor:** With a robo-advisor, such as Wealthfront, Betterment and Nutmeg, all decisions are made and all transactions executed by a robot with little to no human intervention. A robo-advisor uses AI algorithms to provide more dynamic and precise portfolio construction, tax loss harvesting, automated transaction and rebalancing solutions, typically with ETFs as underlying assets. Wealthfront, for example, deploys a quantitative trading decision-making model to automatically create portfolios with

Exhibit 7. Four Major Advisory Business Models in Global Markets

	 Robo-advisor	 Cyborg advisor	 Pure advisory	 Advisory platform
Target clients	<ul style="list-style-type: none"> Individual investors Wealth managers 	<ul style="list-style-type: none"> Individual investors 	<ul style="list-style-type: none"> Individual investors Large employers 	<ul style="list-style-type: none"> Wealth managers
Core value	<ul style="list-style-type: none"> Portfolio construction and transaction execution 	<ul style="list-style-type: none"> Portfolio construction 	<ul style="list-style-type: none"> Planning and advice 	<ul style="list-style-type: none"> Enablement of advisors
Key offerings	<ul style="list-style-type: none"> Automated portfolio creation, tax loss harvesting and other services, typically ETF-based 	<ul style="list-style-type: none"> Asset allocation and portfolio construction solutions from human-robot combination 	<ul style="list-style-type: none"> Personal budgeting, financial planning and portfolio management advisory tools 	<ul style="list-style-type: none"> Purchased or licensed systems or tools for advisors
Decision maker	<ul style="list-style-type: none"> Algorithms 	<ul style="list-style-type: none"> Financial advisors 	<ul style="list-style-type: none"> Individual Investors 	<ul style="list-style-type: none"> Financial advisors
Pricing	<ul style="list-style-type: none"> Management fees as a percentage of AuM 	<ul style="list-style-type: none"> Management fees as a percentage of AuM Time-based human service fees 	<ul style="list-style-type: none"> Monthly/quarterly subscription or pay-per-use 	<ul style="list-style-type: none"> One-off payment to purchase or be licensed
Human involvement	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes, for some players 	<ul style="list-style-type: none"> Yes
Examples	<ul style="list-style-type: none"> Betterment Nutmeg Wealthfront 	<ul style="list-style-type: none"> LearnVest Personal Capital 	<ul style="list-style-type: none"> Financial Guard MarketRiders 	<ul style="list-style-type: none"> Bambu Dragon Wealth

Sources: BCG analysis.

12 types of ETFs as underlying assets. Based on client information and questionnaires, it uses algorithms to automate trading allied to reasonable tax planning and avoidance strategies, which can increase annual after-tax returns by 1%-2%. With effective labor savings and significantly reduced costs, robo-advisors typically charge a management fee of only 0.25% — about one fourth of the rates of traditional advisors. For example, Industrial and Commercial Bank of China (ICBC) in 2017 launched the “AI Investment”, a robo-advisor, which uses AI, big data and mobile internet platforms to create detailed client profiles and also recommend portfolios through quantitative market timing and sector allocation models, with one-click investment or position adjustments. It makes wealth management much easier, and has significantly improved investment efficiency and diversification in six types of funds.

- Cyborg advisor:** A cyborg advisor creates algorithm-driven portfolios as a robo-advisor does, but offers in addition human interaction for investment advice and portfolio adjustment, helping answer clients’ queries and deepening their market understanding. This human-machine integration model not only improves the efficiency of portfolio creation and reduces service costs, but also offers the human touch. By January 2018, Vanguard Personal Advisor Services (VPAS), the world’s largest robo-advisor provider, had over \$101 billion in AuM, well above that of other players. At VPAS, CFP qualified human advisors are involved throughout the process to provide professional judgment, while the automated advisory platform and AI algorithms provide basic solutions and facilitate communication, thus reducing costs of service and attracting a large group of HNW clients.

- **Pure advisory:** A pure advisor primarily provides personal budgeting, financial planning and portfolio management advice for individual investors and large employers. The biggest difference from robo-advisors is that transaction decisions are made by the individual investor, with AI algorithms primarily used only to assist decision making. Services are usually set up on a monthly, quarterly or pay-per-use basis. The US-based Financial Guard, for example, leverages algorithms to fully assess a client's financial profile, diagnose current portfolios and recommend adjustments based on data submitted by clients or collected with clients' approval from linked accounts. Irrespective of the portfolio size, Financial Guard charges an annual service subscription fee of \$150, significantly below that of traditional wealth managers, and also provides large discretion.
- **Advisory platform:** Primarily operated under the B2B model, an advisory platform provides traditional wealth management institutions with systems, algorithms or tools to help them roll out robo-advisor services faster and at lower costs with a view to wider client accessibility and reduced service fees. Singapore-based Bambu, for example, has provided customized white-label robo-advisory solutions for Thomson Reuters and US-based DriveWealth.

Trading and execution — interaction: Technology has changed interaction between firm and client in three ways. Firstly, it enables virtual interaction with clients which is not limited by time or place. Secondly, the support of automated advisory platforms has changed the expertise professionalism required from RMs/investment advisors. Thirdly, it helps manage RM/investment advisor teams more effectively with data-driven, first-hand client feedback and information.

- **Remote interaction:** The use of technology in wealth management, such as online and mobile interfaces, video interaction, facial recognition, speech recognition and fingerprint recognition eliminates the need for face-to-face interaction and allows for online transactions anywhere outside normal business hours. For example, in order to meet regulatory requirements for the sale of certain products, traditional wealth managers must complete audio and video recordings at branches to ensure investor risk awareness and eligibility, while some leading digital wealth managers already employ online recordings to significantly enhance client experience.
- **Reduced RM workloads:** Assisted by AI and big data, leading wealth managers can reduce the workloads for RMs through automation. In addition, AI algorithms and data analytics can provide RMs with more detailed information and help design complex solutions, thereby shifting the focus of RMs from one of simply providing information and products to the client to one of maintaining closer client relationships.

- **Advisor selection:** Many leading advisory platforms are already managing the performances of RMs through data tracking, statistical reporting and other digital means. This helps clients select their advisors and fees are closely correlated with advisors' performance. However, such advisory platforms have not yet emerged in China, primarily because China does not have an established system for the qualification of independent financial advisors. Without transparent and standard accreditation of wealth management professionals, it is difficult for clients to choose advisors independently without the aid of asset managers. In the future, with enhanced market rules and regulations, we expect open platforms to emerge in China's wealth management market, as Uber and Didi did in transport, allowing investment advisors to choose platforms freely and investors to select and change advisors accordingly.

Portfolio management: Traditional wealth managers tend to be passive in post-investment management, generally only responding to client inquiry or requests for help. But technology can allow for all-in-one account management and dynamic, real-time portfolio diagnosis and adjustment.

- **All-in-one account management:** Through APIs, wealthtech companies can serve as open platforms that integrate clients' multiple accounts to provide a comprehensive view of the financial position for more informed decision making. For example, Mint, a well-known personal financial management platform, currently has more than 10 million users. Through authorized connection to clients' credit card, investment, savings, pension and other accounts, it can manage users' financial information to alert them to potential overspending risk, encourage them to develop good wealth management habits and recommend AI algorithm-driven wealth management plans. This fosters effective client lifecycle management. It can also help users analyze spending and develop personalized savings plans. In this way, it helps its clients to increase returns and lower costs with customized advisory services.
- **Dynamic, real-time portfolio diagnosis and adjustment:** Using technology, wealth managers can perform dynamic portfolio diagnosis and real-time adjustment previously unimaginable in traditional wealth management. For example, SigFig, a leading US wealthtech company, leverages a machine learning-based model to analyze clients' portfolios in multiple accounts on a weekly basis to identify underperforming assets and uncover hidden brokerage fees. In this way, it helps its clients to increase returns and lower costs with customized advisory services.

1.2.3 Technology Enables More Inclusive, Professional and Open Wealth Management

Technology makes wealth management more inclusive. Technology helps increase

the accessibility of professional wealth management to “long-tail” clients, who are otherwise denied access to such services. On the supply side, technology fills the gaps created by a limited supply of professional investment managers. On the demand side, technology helps lower service fees so that professional wealth management becomes affordable to a wider group of clients.

Technology makes wealth management more professional. Firstly, technology can enhance the efficiency of wealth management through automation of processes, and the global ubiquity of the internet has made wealth management accessible at any time anywhere in the world. Secondly, technology enables more precise wealth management. Data mining and analytics allow wealth managers to better understand and predict client needs. Furthermore, advanced algorithms allow personalized professional investment advice to meet each client’s unique needs at lower costs. All these contribute to a more professional wealth management.

Technology makes wealth management more open. Technology can foster a more open and competitive landscape for digital wealth management. The future market will no longer be dominated by mainstream wealth managers like private banks. Technology helps build a more diversified digital wealth management ecosystem. In the future, wealth management firms cannot rely on a single capability to stay competitive, but must develop strong, integrated capabilities if they wish to survive.

1.3 Traffic-based, Vertical, Traditional and Integrated Institutions Compete in the Digital Wealth Management Market

Looking at the global landscape, it would seem that digital wealth management players will emanate chiefly from four types of institutions: traffic-based internet institutions, vertical internet institutions, digitalized traditional financial institutions, and integrated internet institutions. Each type of player has its specific target clients, products, service model, and technology-enabled value. (See Exhibit 8.)

Traffic-based internet institutions: They are mostly internet cross-industry players capable of building a massive client base with e-commerce platforms and social applications, offering payment, wallet management, cash management and other services to secure client loyalty. For them, the value of data and technology mostly lies detailed client profiling and continuous enhancement of the investment experience. Through multidimensional big data analytics, they can create accurate client profiles for precision marketing. Such wealth management players are mainly seen in the China market, represented by

Exhibit 8. Four Types of Digital Wealth Management Institutions

	 Traffic-based	 Vertical	 Traditional	 Integrated
Target clients	<ul style="list-style-type: none"> Existing clients on traffic-based platforms Primarily long-tail clients 	<ul style="list-style-type: none"> Clients sticky to a specific type of asset or service 	<ul style="list-style-type: none"> Existing clients of traditional FIs 	<ul style="list-style-type: none"> Middle-class clients expecting financial expertise and receptive to innovations
Offerings	<ul style="list-style-type: none"> Wallet/cash management Highly liquid fixed-income products Based on traffic with foundation for digital wealth management 	<ul style="list-style-type: none"> Frequently traded products Timely information, forum content, etc. 	<ul style="list-style-type: none"> Semi-open product platform Portfolio advice, investment info 	<ul style="list-style-type: none"> Open product platform Portfolio advice, investment info
Service model	<ul style="list-style-type: none"> Self-service 	<ul style="list-style-type: none"> Mainly self-service 	<ul style="list-style-type: none"> Primarily human-robot combination 	<ul style="list-style-type: none"> Self-service Human-robot combination
Tech value	<ul style="list-style-type: none"> Experience optimization, multi-dimensional client tags 	<ul style="list-style-type: none"> Precision marketing, experience optimization, portfolio advice, product design 	<ul style="list-style-type: none"> KYC, asset allocation, risk control, experience enhancement, advisor enablement 	<ul style="list-style-type: none"> Precision marketing, KYC, asset allocation, risk control, experience enhancement, replacing investment advisors
Examples	<ul style="list-style-type: none"> Ant Financial qian.qq.com 	<ul style="list-style-type: none"> Wealthfront xueqiu.com fund.eastmoney.com 	<ul style="list-style-type: none"> UBS SmartWealth Fidelity Go 	<ul style="list-style-type: none"> Charles Schwab Lufax

Sources: BCG analysis.

BATJ - Baidu, Alibaba, Tencent and JD. Global internet giants such as Amazon have plans for wealth management business but as yet have gone no further than providing payment services for consumers.

Vertical internet institutions: These are players focused on a specific vertical market in the wealth management sector. Typical examples include robo-advisors like Wealthfront that mainly invest in ETFs, and vertical platforms that primarily offer fund and stock market information and forum content, complemented by trading and account management functions such as xueqiu.com and fund.eastmoney.com. With good information about a specific area, these institutions apply data and technology to revolutionise the client experience across the whole value chain from decision making to post-trading management. Such platforms tend to regard the integration of asset allocation and transaction function as key to their ability to meet middle-class clients' need for efficiency and low rates. In China, where clients tend to be independent investment decision makers, most such platforms enhance their competitive edge by using technology to provide faster and more accurate market information to support investment decisions.

Digitalized traditional financial institutions: In a digital age, many leading banks and other traditional financial institutions are pursuing digital solutions and have established

digital platforms or sub-brands that do not represent a dramatic divergence from their traditional businesses. With such core advantages as a large client roster, financial know-how and offline branches, they provide the affluent and high-net-worth (HNW) segments with technology-based asset allocation and digital service with a human face. Large traditional global financial institutions have undergone digital transformation to reduce service costs to HNW and UHNW. In China, financial institutions such as China Merchants Bank have adopted wealthtech to serve affluent clients previously underserved by banks.

Integrated internet institutions: These are players whose core competitive advantages lie in a balanced mix of professionalism, low costs and convenience of use, such as the US-based Charles Schwab and China's Lufax. They provide an open platform with a diverse range of products for better asset allocation, focusing on the affluent middle-class segment whose wealth management needs are currently under-served by traditional institutions. By exploiting data and technology, such players can form a deeper understanding of first-time clients, optimize asset allocation models, and better explore innovative risk control and anti-fraud roles. They can change the traditional expectations of investment advisors and shift their focus towards greater interaction with clients. The challenge facing such institutions is the need to strike an ideal balance between technology deployment and the role of the professional.

1.4 Four Key Factors Driving Wealth Management Market Growth

A comparison of the world's four major digital wealth management markets shows that the United States and China enjoy significant advantages over others in terms of market size, popularity of online wealth management, and wealthtech activity. (See Exhibit 9.) As of 2017, China's wealth management market had reached \$6 trillion in AuM, with an online sales penetration rate of 34%, both ranking second globally behind only the US. With 700 million smartphone users, the country has great potential for significant growth in digital wealth management. China's wealthtech space has received funding of \$2.8 billion — the highest in the world.

Studying the evolution of the four markets, we find that four factors are indispensable for the healthy development of digital wealth management: wealth accumulation, IT foundations, market regulation, and client sophistication.

Wealth accumulation: "Wealth commands respect. It is one of the solid pillars of social order," wrote French novelist and essayist Romain Rolland. When social mobility is constrained and wealth is concentrated among a small group of ultra-wealthy people, traditional private banks can serve the market well due to limited incremental demand.

Exhibit 9. Current Status of the World's Four Major Digital Wealth Management Markets

	US	China	UK	Singapore
Per-capita GDP 2016 (\$ 10k)	~5.7	~0.8	~4.0	~5.3
WM market size (\$ '00mn)	93,622	61,735	4,197	484
Online WM penetration rate (%)	40.7%	34.6%	24.9%	27.9%
# of smartphone users ('00mn)	2.26	7.17	0.45	0.06
# of wealthtech companies	343	51	84	23
Total wealthtech funding (\$ '00mn)	27.5	28.3	4.6	0.2
Wealthtech unicorns/ quasi-unicorns	<ul style="list-style-type: none"> • Wealthfront • Personal Capital • Betterment • Addepar 	<ul style="list-style-type: none"> • Ant Financial • Lufax 	<ul style="list-style-type: none"> • Nutmeg 	<ul style="list-style-type: none"> • Bambu • Dragon Wealth <p>Potential players</p>
	#1	#2	#3	#4

Sources: BCG Global Wealth Model; BCG Fintech Control Tower; World Bank; NewZoo.

When private wealth is rapidly accumulating, especially among the affluent middle-class, demand for wealth management will increase significantly and various new service providers will emerge. Bolstered by technology, digital wealth management with lower costs and higher efficiency can serve a wider group of clients.

IT foundations: The widespread adoption of digital wealth management is not possible without a solid IT foundation, which includes network infrastructure, penetration of smartphones and receptiveness to online offerings.

Market regulation: The history of the four markets shows that regulatory attitude and measures have a great impact on the development of digital wealth management. Sensible regulation fosters sustainable market growth. A healthy market requires a clear regulatory framework, reasonable access rules, an effective system for the qualification of investment advisors, appropriate sales rules, regulations for all types of products, and constant investor education.

Client sophistication: The sophisticated investor not only embraces new technology, but, more importantly, is equipped with the requisite financial knowledge, including a grasp of the specialized nature of financial businesses and the risks of investment.

1.4.1 The United States: Tech Companies Disrupt with Innovations and Mainstream Institutions Quickly Adapt to Change. The US Market Is Dominated by the Big Four Wirehouses, Platform/Discount Brokers and Independent Financial Advisors. Mainstream Institutions Have Sustained Their Leadership Position Through M&As or In-house Incubators in Quick Response to the Technology Innovations and Incubations at Wealthtech Companies

The United States is the world's largest digital wealth management market, the growth of which has been driven by three factors. Firstly, since the 1970s, middle class investors have turned to the services of discount and online brokers due to low commissions. They have become increasingly accustomed to online offerings and shown great partiality for low costs. Secondly, the US middle class is obliged to manage part of their retirement accounts independently, creating strong demand for investment advice. Thirdly, the United States is a global leader in the R&D and application of big data, AI, blockchain and other technologies, which provides a solid foundation for the development of digital wealth management technology⁷.

Prior to 2010, the US wealth management market was dominated by the big four brokerage firms and traditional wealth managers. From 2010 onwards, wealthtech players, such as Wealthfront and Betterment, rose quickly and targeted the mass affluent segment with low commissions, low investment thresholds and automated portfolio management. This led to explosive growth in AuM. Quickly recognizing the enormous potential of technology to further expand the client base and serve existing clients at lower costs and with greater efficiency, mainstream wealth managers followed suit. Since 2013, major wealth management players, such as Vanguard, Charles Schwab, Fidelity, Bank of America Merrill Lynch, have launched low-rate, low-threshold smart wealth management products to capture a share of this market. In 2015, BlackRock acquired FutureAdvisor, a wealthtech company, to further strengthen its technological capabilities and ensure its competitive edge in the digital wealth management market. Mainstream players have thus resumed their dominance.

Against this backdrop, US regulators have adhered to the traditional regulatory principles of defined boundaries, clear rules and anti-trust responsibilities to promote the orderly development of the digital wealth management market. In 2016, the Financial Industry Regulatory Authority (FINRA) released a research report saying that algorithms and portfolio construction constitute the two areas of focus for wealthtech regulation and it also recognized effective practices and principles in some areas. The following year, the US

⁷ Digital wealth management technology: the use of computers, communications networks, algorithms and other digital technologies for the purpose of wealth management.

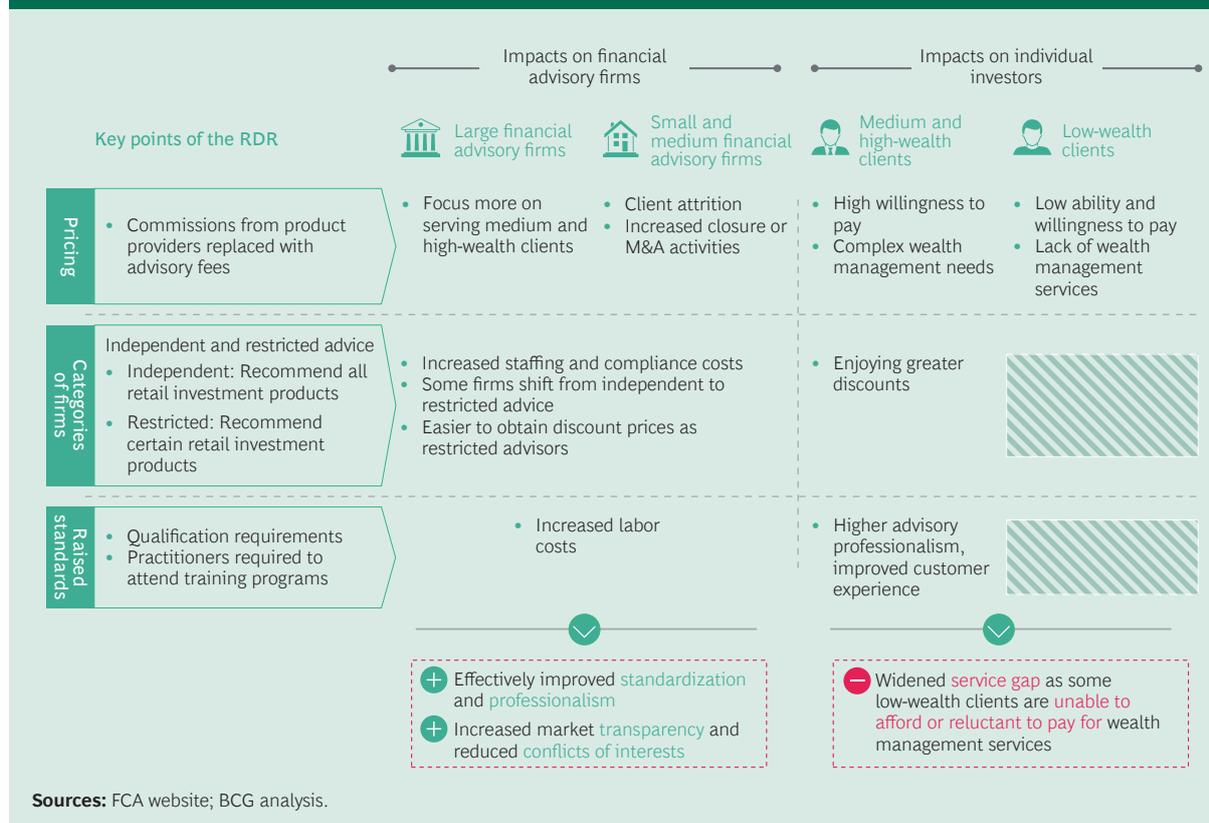
Securities and Exchange Commission (SEC) issued the *Guidance Update: Robo-advisors*, which defined robo-advisors as “typically registered investment advisors using innovative technologies to provide discretionary asset management services to their clients” and incorporated robo-advisory management into the existing regulatory framework. Moreover, the SEC released the *Investor Bulletin: Robo-Advisors*, explaining in detail how robo-advisors work for the purposes of investor education. In addition to regulating wealthtech companies, US regulators continue to improve the accredited investor system for wealth management in an effort to match product risks with individual investors’ financial knowledge in order to reduce unsuitable investment. In 2015, the SEC released the *Report on the Review of the Definition of “Accredited Investor”*, which proposed significantly raising annual income and net worth thresholds to \$750,000 and \$2.5 million respectively for accredited investors. It also proposed that total securities investment, requisite financial knowledge and other criteria should be taken into account.

1.4.2 The United Kingdom: Regulatory Policies Promote Digital Wealth Management, with Both Emerging and Traditional Players Experiencing Rapid Growth in the Area. The Regulatory Environment Fosters a Prosperous Digital Wealth Management Industry

In the wake of the 2008 financial crisis, independent financial advisors (IFAs) gradually established dominance over banks in the distribution of asset management products in the UK market. The IFAs primarily receive commissions from asset managers based on sales volumes. However, under this model advisory fees were not transparent, giving many investors the false impression that financial advisory services were free. Moreover, sales-oriented performance appraisal led to conflicts of interest between IFAs and RMs and also what were often misleading sales practices. Before the crisis, the the UK Financial Services Authority (FSA) launched the Retail Distribution Review (RDR) in 2006, which prohibited financial advisors from receiving commissions from fund companies and further divided advisors into those giving ‘independent’ and those giving ‘restricted’ advice. But it was not until late 2012 that the RDR came into force. Although the market is now better regulated under the RDR, many mass market clients continued to be excluded from wealth management services as they did not understand the new designation of IFAs and the pricing model. (See Exhibit 10.)

The gap in the market that developed as a result of regulatory change encouraged the emergence of a number of wealthtech companies using technology to provide D2C services. With such selling points as low rates, low investment thresholds, smart portfolio recommendations and high information transparency, UK wealthtech players have experienced rapid growth in their AuM. Nutmeg, for example, had £1.1 billion in AuM as of 2017.

Exhibit 10. Impacts of the RDR on the UK Wealth Management Market



The Financial Conduct Authority (FCA) soon recognized the tremendous potential of digital wealth management technology. In the *Financial Advice Market Review* released in March 2016, it noted that automated advice models and other digital technologies are an effective means to bridge the advice gap. The FCA then established the Advice Unit in collaboration with 16 wealthtech companies and financial institutions to promote the development of digital wealth management technology and to address regulatory issues facing wealthtech companies in their day-to-day business; moreover, it introduced an innovative regulatory sandbox that is open to applications from fintech firms.

The regulators' positive attitude and effective measures encouraged the second wave in digital wealth management with traditional financial institutions rushing to enter the market. From 2016 onwards, Hargreaves Lansdown and Brewin Dolphin, two established UK wealth managers, launched quasi-robo-advisory products with investment thresholds and rates significantly lower than before. Shortly thereafter, UBS, Royal Bank of Scotland, HSBC and Barclays introduced low-threshold, low-rate digital wealth management products using robo-advisory technology. The UK insurer Aviva also acquired Wealthify, a wealthtech startup.

1.4.3 Singapore: With a solid foundation for digitalization, Singapore adopts rigorous regulation while introducing the regulatory sandbox to encourage innovations, fostering a booming B2B wealthtech landscape

The Singapore government has promoted the national ICT strategy (an information and application integration platform) since 2001, committed to building an information society. It launched the “Smart Nation” initiative in 2006, aiming to boost its economy through digitalization. As at the end of 2016, the internet penetration rate hit 82% and 95% among PC and mobile users respectively across the country making Singapore a global leader in the application of information technology. The country’s per capita GDP stood at \$53,000 per annum in 2016, which indicates that most locals are affluent with strong demand for low-cost and high-efficiency wealth management services. Singapore therefore has a sound market environment and strong customer base for the development of digital wealth technology.

Singapore is the largest offshore wealth hub in the Asia Pacific, where global wealth management firms such as UBS, Credit Suisse, Goldman Sachs and JP Morgan are very active. These players focus on HNW and above segments and have mostly introduced wealth technology to serve private banking clients. Credit Suisse, for example, launched its digital platform for private banking clients in Asia in March 2015, which provides strategies relevant to clients’ asset allocation. In 2015, however, many local tech companies noticed the demand of mass affluent clients was largely unmet and began to provide technology support and white-label services such as robo-advisory solutions to mainstream wealth managers. Well-known B2B wealthtech companies such as Bambu and WeInvest were nurtured in the Singapore market, making the country a burgeoning wealthtech market.

The digital wealth management market in Singapore could not have enjoyed orderly development without rigorous and yet flexible regulation. Under a model of mixed regulation, the Monetary Authority of Singapore (MAS) manages all financial institutions in the country, controlling the licenses for financial and quasi-financial institutions such as banks, insurers, securities firms, wealth managers and credit institutions to prevent over-leveraging and systematic risk. It has encouraged innovation but also sets stringent access standards. In the wealth management area, players must obtain investment advice and Capital Market Service (CMS) licenses from the MAS before providing online or off-line wealth management services for retail customers. For this reason, wealthtech companies with insufficient capital, short business history and limited capital market service experience have to seek a breakthrough in B2B business.

On the other hand, with forward-looking regulatory thinking, Singapore is one of the

first countries to have introduced a fintech regulatory sandbox. Within the business lines approved by the MAS, selected institutions are allowed to first quickly implement innovations and then decide whether to promote them according to their performances, given that investors' interests are properly protected. According to the sandbox evaluation criteria, applicants are expected to be able to implement and promote fintech solutions, use technology in an innovative way, solve key problems, and benefit consumers or the industry. So far the MAS has granted the first batch of licenses to just three robo-advisor players, with Stashaway being the first wealthtech company to obtain the license to serve retail wealth management clients. Having obtained the CMS license from the MAS in July 2017, Lu International under Lufax Holding is able to apply multiple technology innovations to remote account opening, anti-fraud and anti-money laundering.

Judging by the experience of the US, Singapore and UK markets, clear regulatory policies on wealth management channels and products can help shape market and industry norms, improving both the neutrality of sales channels and the professionalism of industry participants. This will foster the sustainable development of the wealth management market. Moreover, there is a growing trend towards more forward-looking regulatory measures, which are key to the speedy introduction of innovative technologies.

2. China's Digital Wealth Management Moves into a New Era

2.1 Enormous Potential of Real Digital Wealth Management in China

2.1.1 Real Digital Wealth Management Market to Be Tapped

Over the past five years, the internet finance boom in China has provided the foundation for digital wealth management in two aspects. On the one hand, it helped China become one of the two markets most receptive to online finance and online wealth management⁸ — the other being the United States — making possible the rapid growth of digital wealth management.

On the other hand, the Chinese market has witnessed the rise of the first batch of independent internet wealth management platforms⁹. As at the end of 2017, their combined AuM had grown at a CAGR of higher than 50% from some \$10 billion to \$600 billion in the space of five years.

However, independent internet wealth management platforms (a business model deemed the closest to digital wealth management) had \$3.3 trillion in AuM and a penetration rate of 35% in the US market in 2017 — significantly higher than in China. (See Exhibit 11.) Moreover, an important component of independent internet wealth management in China is the so-called “baobao” products that are focused on cash management only. These are not regarded in this report as digital wealth management products in the strictest sense. Therefore, we believe that the real digital wealth management market in China is smaller than it might at first appear and large portions of it remain to be tapped.

2.1.2 Five Driving Forces for China's Digital Wealth Management Market

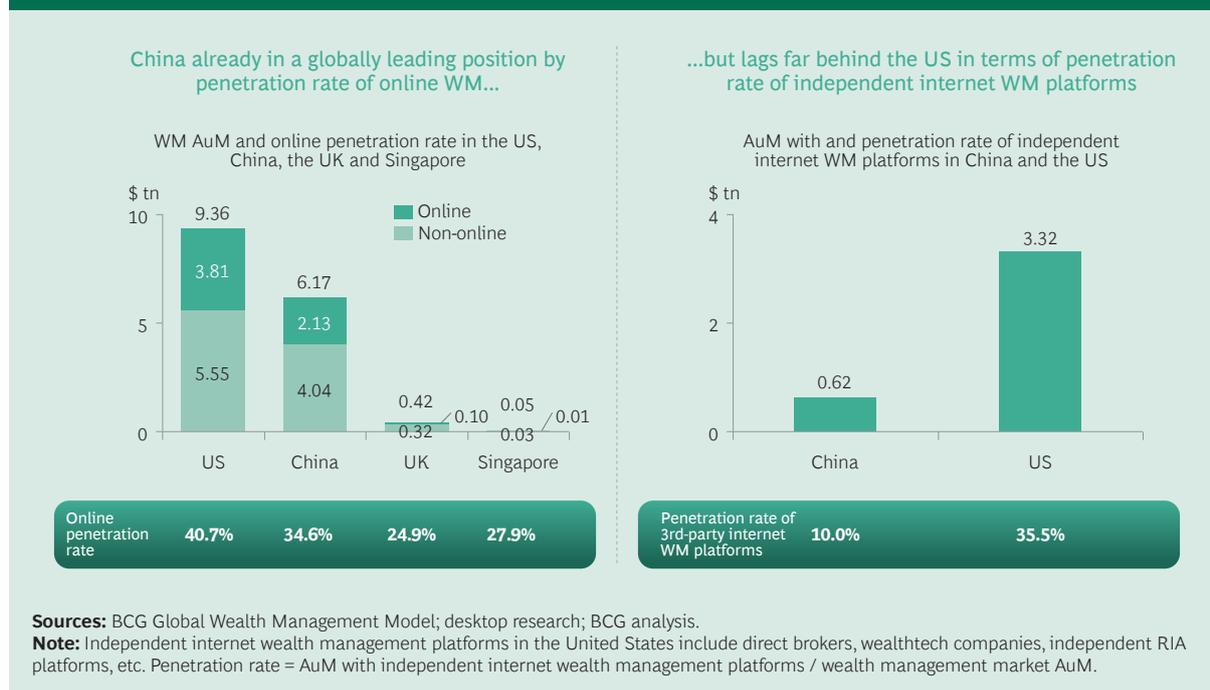
Despite its current scale, China's digital wealth management market is expected to grow rapidly in the future. Analyzing the economic and private wealth trends in China, we believe that the growth will be driven by five forces.

GDP growth will drive a substantial increase in private wealth. China is already the world's second largest economy. Its GDP grew from RMB22 trillion in 2006 to RMB74

⁸ Online wealth management: wealth management products and services provided via the web, mobile apps and other online channels, as opposed to physical branches of financial institutions.

⁹ Independent internet wealth management platforms: internet-based wealth management platforms operated under the open shelf model as independent brands/legal persons.

Exhibit 11. Online AuM in the World's Major Wealth Management Markets and AuM with Independent Internet Wealth Management Platforms



trillion in 2016, with its share of the global economy rising from 5.4% to 15% in the same period. Alongside dramatic GDP growth, private investable financial assets in China had grown rapidly to RMB126 trillion by the end of 2016. China now has 2.1 million HNW households and a significantly increased middle-class population, making it the world's second largest wealth management market. The steady accumulation of private wealth augurs a prosperous wealth management market.

As the property market slows down, demand for financial assets will rise, stimulating the development of wealth management. As real estate investment peaks in China, both expected and actual returns will drop significantly, especially in a changing policy environment. Consequently, investors are shifting their focus from the property market to financial markets, which will indirectly contribute to the growth of the wealth management market. Fifty three percent of private wealth in China is allocated to non-financial assets (primarily real estate), and only 47% is allocated to financial assets, compared with 72% in the United States, which means there is a lot of room for Chinese investors to seek investment in financial assets.

The regulation of internet finance platforms fosters the healthy development of digital wealth management. Established in 2016, the National Internet Finance Asso-

ciation of China is mainly responsible for developing business management rules and industry standards for different types of internet finance businesses. It specifies penalties for breaches of the rules and attempts to ensure enforcement of industry standards. Officially put in place on 27th April of 2018, the “new asset management rules” clearly defines the investment scope of wealth management products in order to better regulate the asset management business and also reduce both arbitrage and market risk. Issued in the same month, *the Notice on Strengthening Rectification of Internet-Based Asset Management Operations and Carrying out Inspection and Acceptance (Document No. 29)* sets out stringent license requirements as well as classifying unlicensed issuance and sale of asset management products via the internet as illegal. The document also explicitly requires that existing unlicensed business should completely cease by June 2018. Such regulatory efforts are creating a sound environment for the healthy and steady development of digital wealth management. It is believed that future regulation will also focus on the standardization and compliance of channels.

Chinese customers are accustomed to paying for goods online, which provides the foundation for the transformation towards digital wealth management. Over the past few years, Alibaba and Tencent have encouraged smartphone users in China to embrace online payment through massive marketing campaigns. As a result, China has an online payment rate far higher than other countries. By June 2017, there were 511 million users of online payment methods in China, representing 68% of all internet users. In tier-1 and tier-2 cities, few customers now pay in cash at convenience stores or supermarkets. The popularity of online payment should help the shift to digital solutions in the wealth management market.

Embraced by financial institutions, fintech and other emerging technologies drive digital wealth management. Internet finance players and investors in China are very receptive to new technologies, and fintech enjoys great popularity among Chinese financial institutions. For example, supported by Ping An Group’s databases, Lufax uses big data, machine learning and other technologies to analyze investors’ investment ability and their risk appetite, providing the basis for tailored products or investment portfolios. China Merchants Bank (CMB) launched Machine Gene Investment, a robo-advisor, which provides a big data-based mobile advisory service by fusing human wealth management practice and fund research experience with machine learning algorithms. The widespread adoption of fintech by financial institutions paves the way for digital transformation.

Driven by these five forces, China’s digital wealth management market has an exciting future.

2.2 Five Characteristics of Chinese Digital Wealth Management Clients

Alongside the strong digital trend, China has seen the emergence of a group of internet-based wealth management¹⁰ clients, whose online managed assets typically account for more than 30% of their total investable assets. Over the past few years, this segment has rapidly grown into an important segment of China's wealth management market.

In this report, based on BCG survey of more than 3,200 respondents from different age bands, cities, wealth levels and occupations, we have created a portrait of internet wealth management clients in China. (See Exhibit 12.)

The above profile reveals five characteristics, as we explore below.

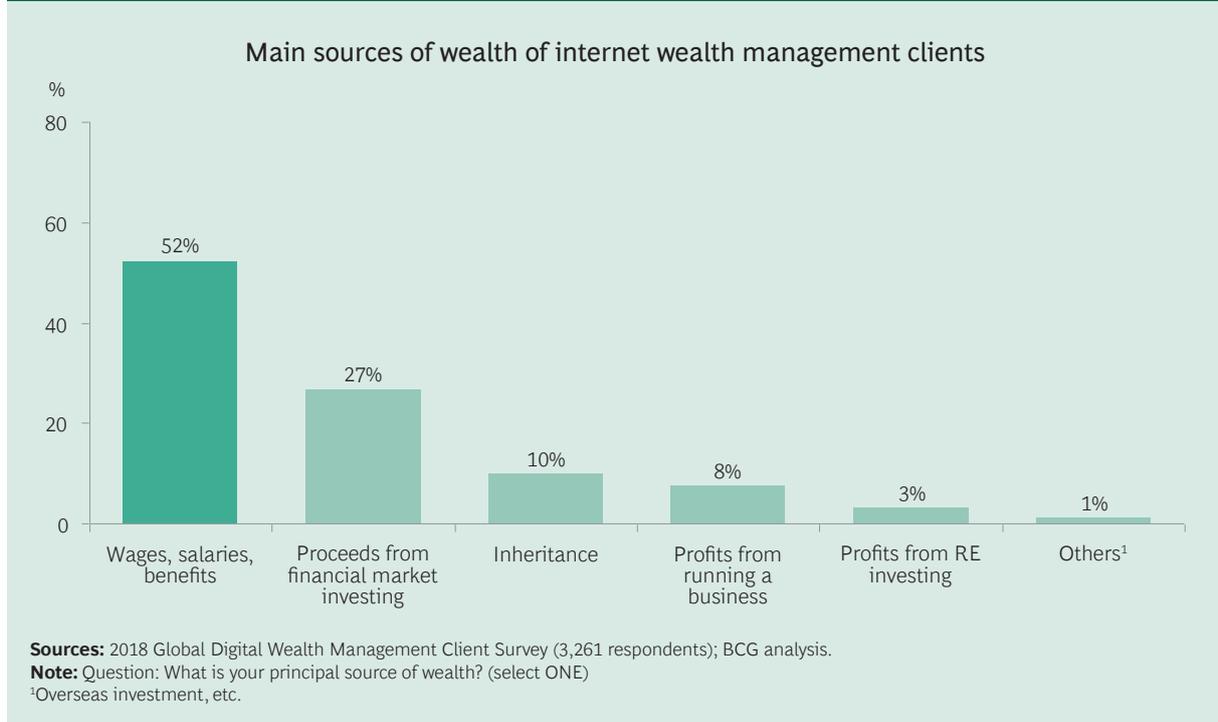
2.2.1 The Middle Class Constitutes a Major Client Segment of Internet Wealth Management

The client survey shows that the affluent middle class has become the largest client seg-



¹⁰Internet wealth management: wealth management products managed via the internet.

Exhibit 13. Wages and Salaries Represent the Principal Source of Income of Internet Wealth Management Clients



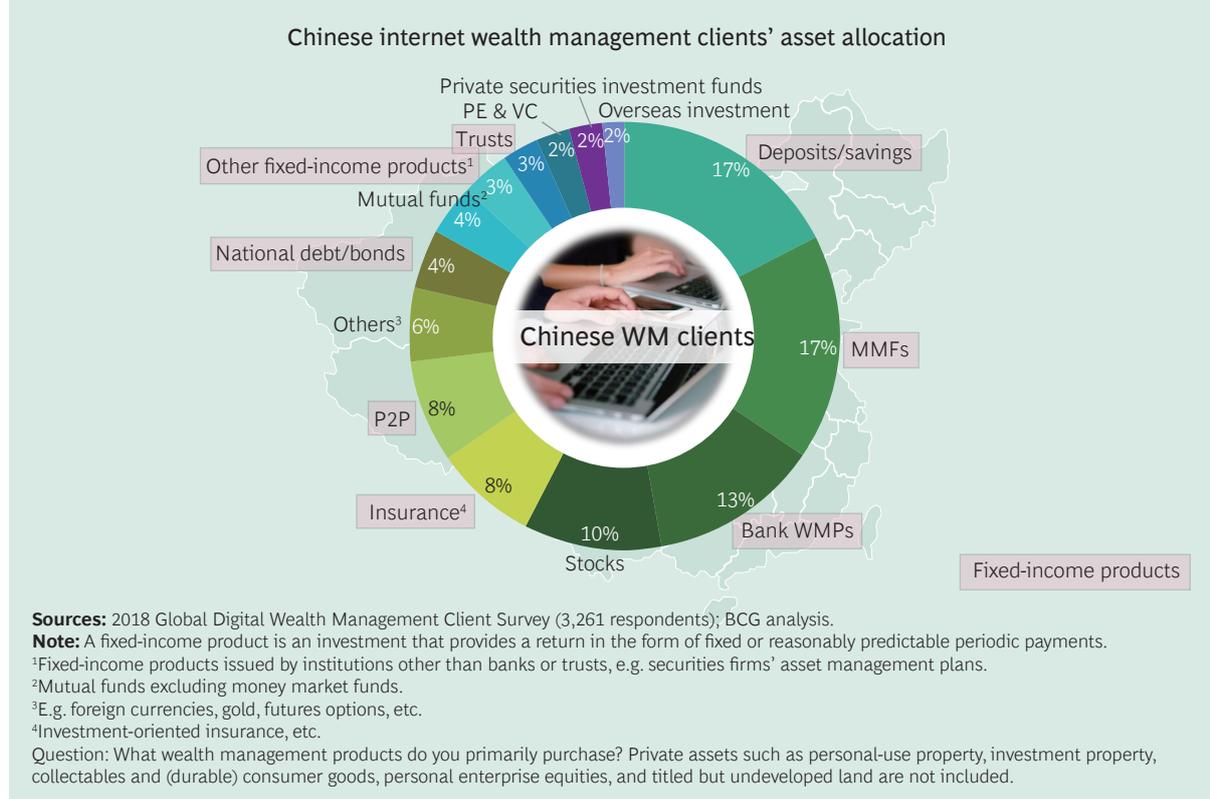
ment for internet wealth management in China. This pool of clients, the income of which derives primarily from wages and salaries, now accounts for 52% of all internet investors. It is expected that, as this middle class becomes increasingly wealthy, China's internet wealth management market will further grow in size. (See Exhibit 13.)

2.2.2 Internet Wealth Management Does Not Change Clients' Investment Preferences, and Fixed-income Products Remain the Mainstream

The survey suggests that internet wealth management clients still primarily invest in fixed income products, such as bank deposits/savings (17%), money market funds (17%), bank wealth management products (13%), insurance products (8%) and government bonds. These instruments account for 73% of their total investments. (See Exhibit 14.) Fixed income products have been the favored choice of internet wealth management clients.

As discussed in Section 2.3.2, fixed-income products account for 80% of products favoured by wealth management clients in general, showing that investors' preferences do not change dramatically when they manage their wealth online.

Exhibit 14. Fixed-income Products Remain the Mainstream Choice Among Internet Wealth Management Clients



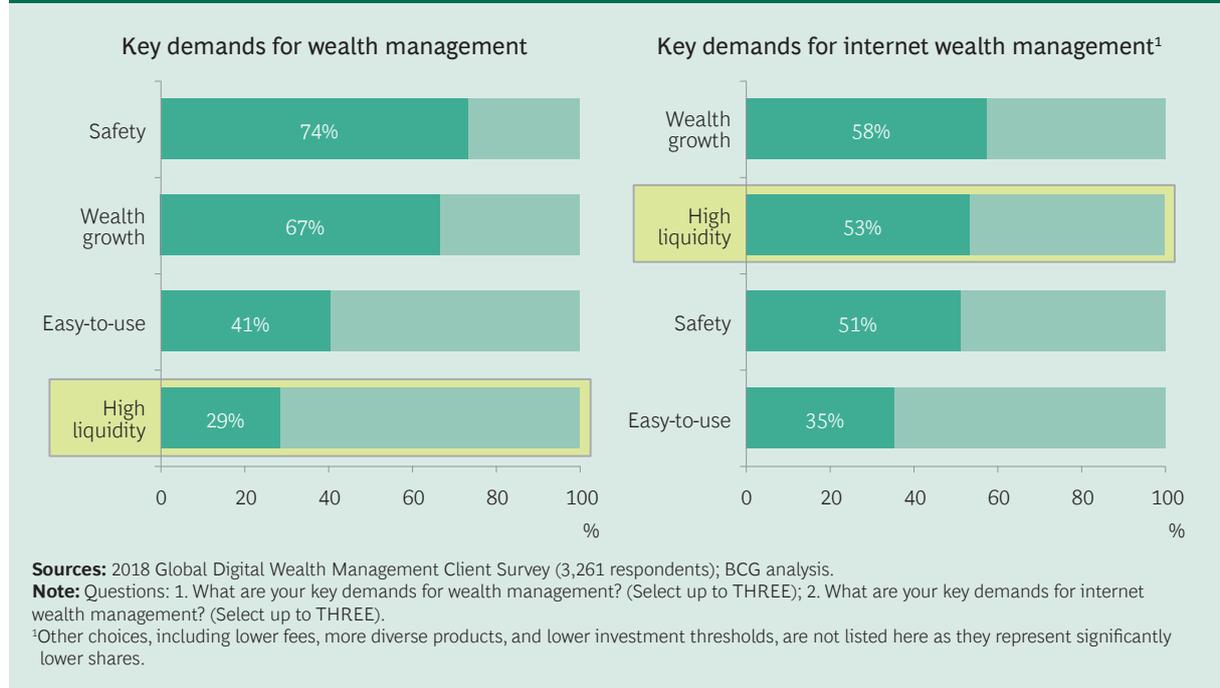
2.2.3 Internet Wealth Management Clients Have Stronger Demand for Liquidity

The survey reveals that internet wealth management clients have a significantly higher demand for liquidity in internet wealth management than in traditional offline wealth management. (See Exhibit 15 on page 28.) This may be related to the rise of cash management within the past years and the resulting offline-to-online transfer of a large group of clients. Due to the transfer, Internet wealth management clients in China now have high expectations of liquidity.

2.2.4 Internet Wealth Management Clients Show Higher Risk Tolerance

According to the survey, 46% of internet wealth management clients indicated a preference for “steady growth and moderate risk,” while only 33% of offline wealth management clients selected that option. When asked about the acceptable percentage of loss, 55% of internet wealth management clients indicated acceptance of 20% or more loss of principal, compared with 41% of offline wealth management clients. (See Exhibit 16 on page 29.)

Exhibit 15. Investors Have Stronger Demand for Liquidity in Internet Wealth Management



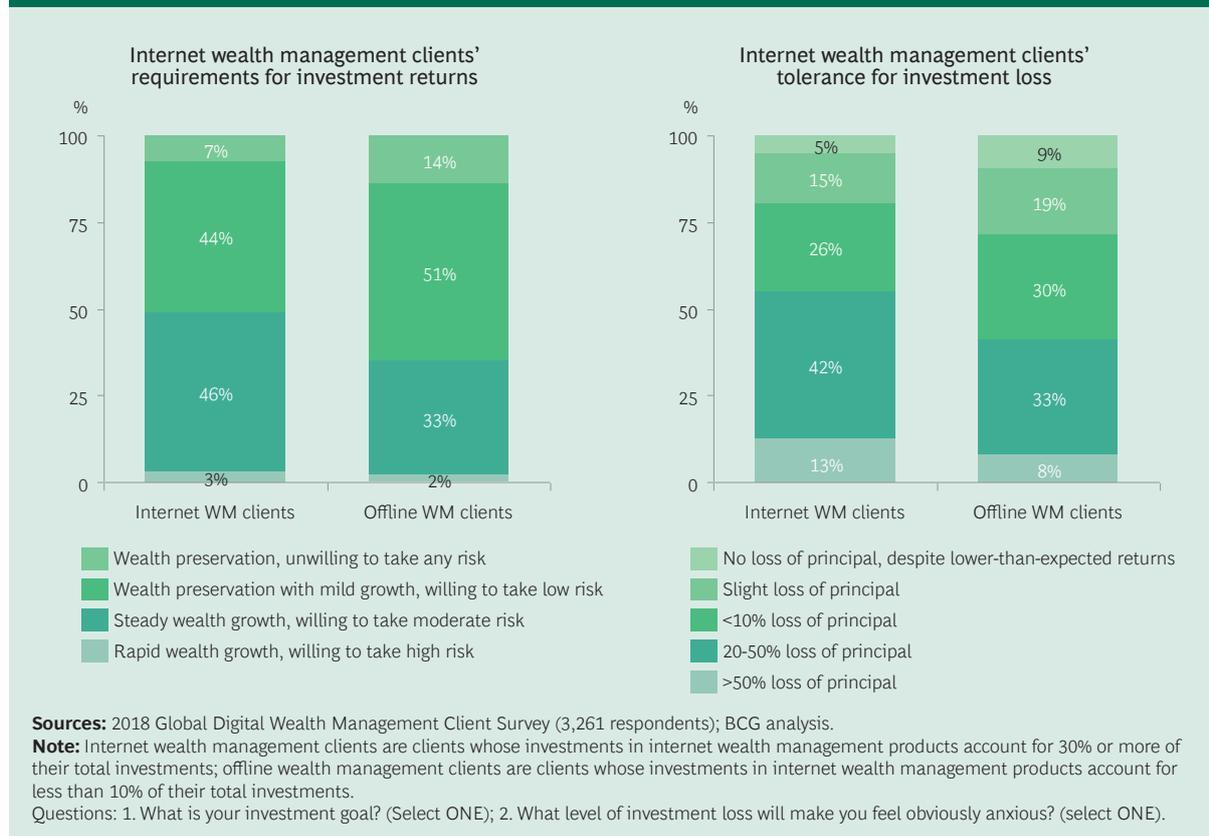
2.2.5 Internet Wealth Management Clients Have Strong Demand for Professional Information and Advice

Internet wealth management clients also showed a clear demand for professional investment information and advice. Some 53% of them indicated a need for investment information and 62% for investment advice.

In terms of the type of investment information required, more than 50% of clients indicated the strongest demand for market performance data, economic indicators and information about trendy products. Over 50% of clients also said they need investment advice about products and, asset allocation as well as regular investment diagnosis. (See Exhibit 17 on page 30.)

More than half all clients in all wealth segments showed a significant demand for investment information and advice, a percentage which increases in line with higher wealth levels. (See Exhibit 18 on page 30.) We expect that high quality investment information and effective advice will prove popular among all segments, but especially those of higher wealth.

Exhibit 16. Internet Wealth Management Clients Have Higher Risk Tolerance



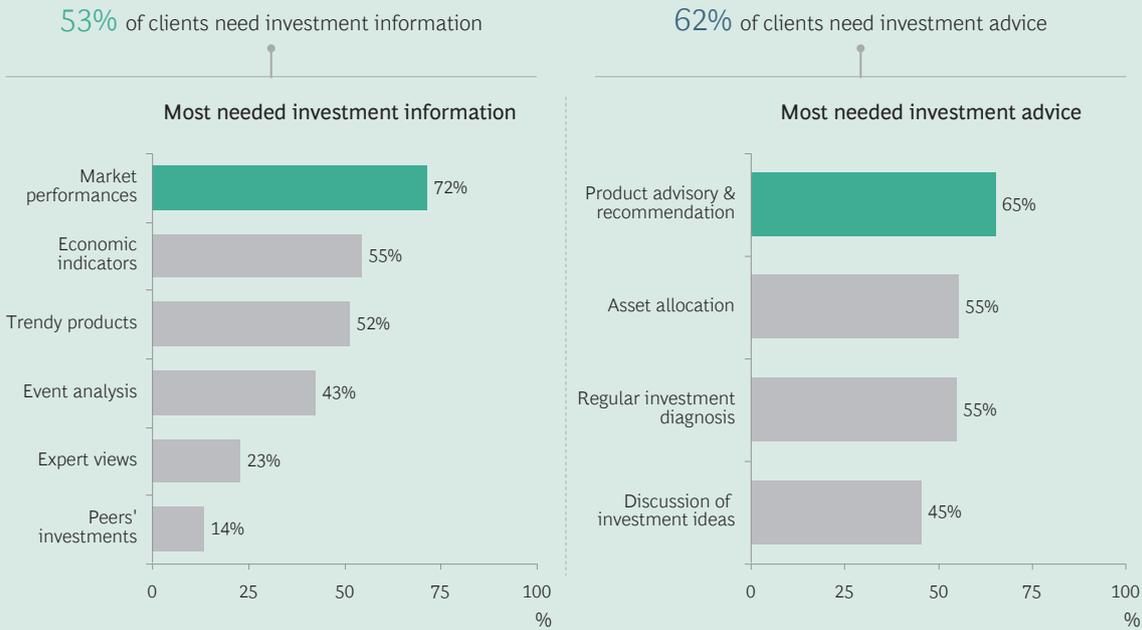
From the above analysis we have gained an increasingly clear profile of China's internet wealth management clients: they are mostly middle-class people from cities of various sizes, they prefer fixed-income products, emphasize liquidity, have a higher risk tolerance and recognize the value of wealth management information and advice. As the middle class grows ever larger, we believe that digital wealth management will see substantial growth in its client base in China.

2.3 Under-regulated Market and Immature Clients Behind Rapid Development

2.3.1 A Market in Urgent Need of Regulation

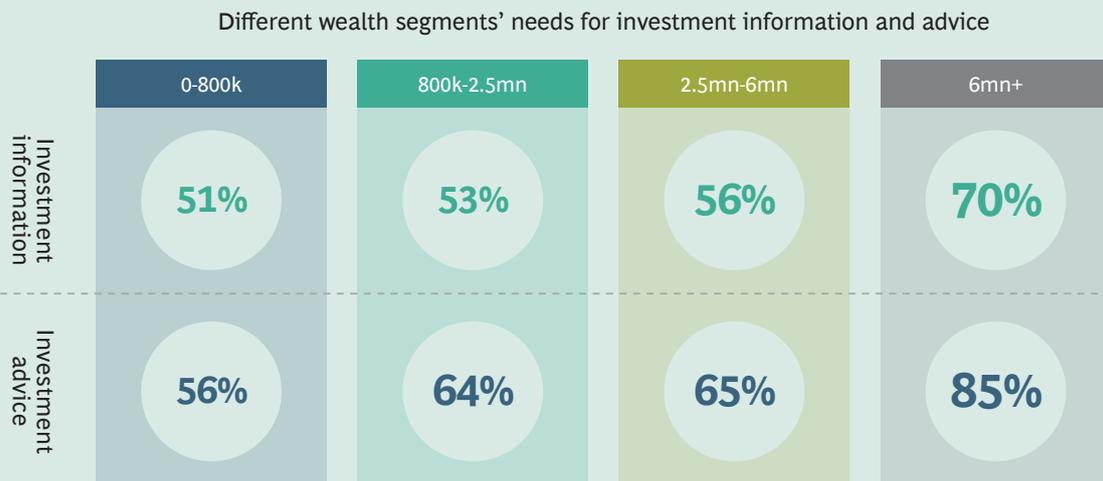
Despite an increased diversity of products and the rise of four main types of institution, China's booming digital wealth management market is confronted with several problems, as we discuss below.

Exhibit 17. Strong Demand for Investment Information and Advice, Especially for Market Performances and Product Advisory & Recommendation



Sources: 2018 Global Digital Wealth Management Client Survey (3,261 respondents); BCG analysis.
Note: Questions: 1. Do you need investment information or investment advice in internet wealth management? 2. What kind of investment information do you need most? 3. What kind of investment advice do you need most?

Exhibit 18. Clients at Different Wealth Levels Have Specific Needs for Investment Information and Advice



Sources: 2018 Global Digital Wealth Management Client Survey (3,261 respondents); BCG analysis.
Note: Question: 1. Do you need investment information or investment advice in internet wealth management?

“Implicit guarantee” brings about rapid growth as well as potential risks. In some ways, the implicit guarantee of repayment has fueled the dramatic expansion of China’s wealth management market over the past few years, but is now becoming a major obstacle to the further development of the industry. Currently, investors largely expect an implicit guarantee from commercial banks’ wealth management products and trusts, securities firms’ collective asset management plans, and fund subsidiaries’ asset management plans.

Historically, many retail investors were attracted to bank wealth management products due to lower risks and higher returns, and they gradually became an alternative to deposits. Despite the narrowing gap between average expected returns on wealth management products and deposit rates as interest rate liberalization progresses, the implicit guarantee of repayment still makes wealth management products attractive to retail clients. When interest rates were tightly controlled, banks were able to accumulate deposits at lower rates while providing clients with investment opportunities at higher returns. This also allowed banks to move liabilities off balance sheet, which met regulatory demands, and also established capital pools for credit expansion.

However, the implicit guarantee poses three potential risks. Firstly, **it is detrimental to the real economy as it leads to misallocation of resources and price distortion.** Returns do not reflect inherent risks. Subprime assets and those even more risky assets are more likely to access financing, creating a situation where “bad money drives out good.” Secondly, **it in effect increases leverage in the financial system and thus systematic risk in the wealth management industry.** The implicit guarantee transfers risk from vast numbers of investors to a few financial institutions, leading to an unhealthy concentration of risk in the financial system. In addition, unrestrained off-balance sheet exposures increase leverage, resulting in unchecked credit expansion. Thirdly, **the implicit guarantee is not conducive to fostering an investment community which makes rational decisions.** The existence of capital pools prevents wealth managers from providing explicit information about underlying assets, which makes it difficult for investors to make sensible judgments.

Sales are not truly customer-centric. Mostly, investors have to accept existing product offerings rather than choose wealth management instruments tailored to their own risk appetite. In addition, under the commission-based sales model, RMs are unlikely to always act in the best interest of clients but rather tend to recommend wealth management products that carry higher commissions whether or not they meet client needs. This is extremely unhealthy.

Institutions vary widely in business practices. In the Chinese market, some players have become industry leaders with ever-improving expertise and compliant operations. However, institutions vary widely in business practices. For example, some platforms use fintech as simply a marketing tool rather than an agent to transform the business.

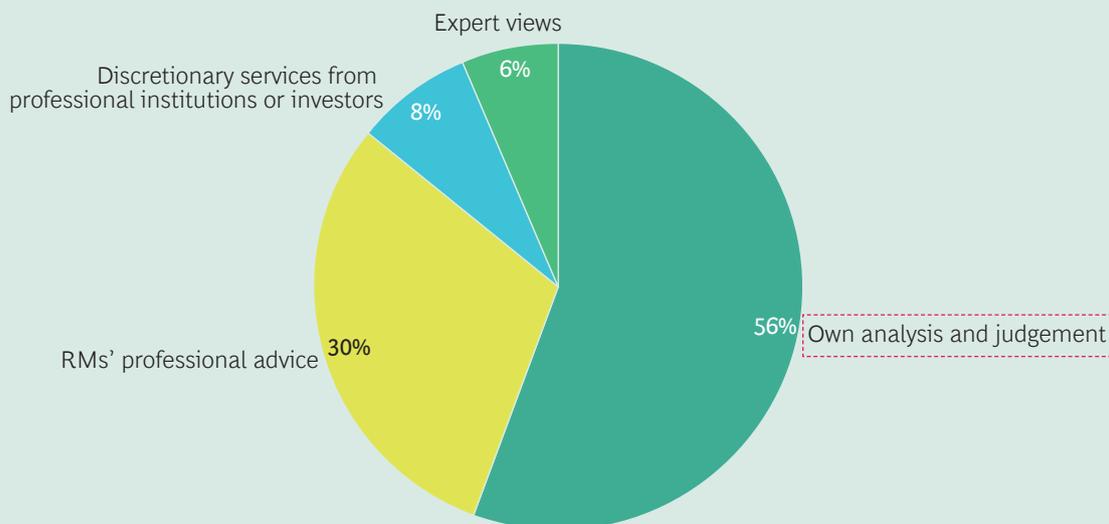
Some other platforms regard digital wealth management as only a means to take deposits and make loans, causing problems such as misleading sales and ineffective risk control. Other players even seek regulatory arbitrage through conduit arrangements or fake projects, as evidenced by the flight of multiple P2P platforms.

2.3.2 Unsophisticated Investors

Chinese investors have strong independence of mind and more than half of them make investment decisions based on their own analysis. The client survey shows that 56% of the investors rely on their independent analysis for investment decisions. (See Exhibit 19.) This is connected to the fact that in the past China's wealth management market was dominated by fixed income products with guaranteed returns while the capital market proved inefficient. Moreover, "long tail" clients' limited understanding of investment advice has also fueled the prevalence of independent investing.

Chinese investors prefer fixed income products and their asset allocation is un-

Exhibit 19. More than Half of Chinese Investors Tend to Invest Independently



Sources: 2018 Global Digital Wealth Management Client Survey (3,261 respondents); BCG analysis.

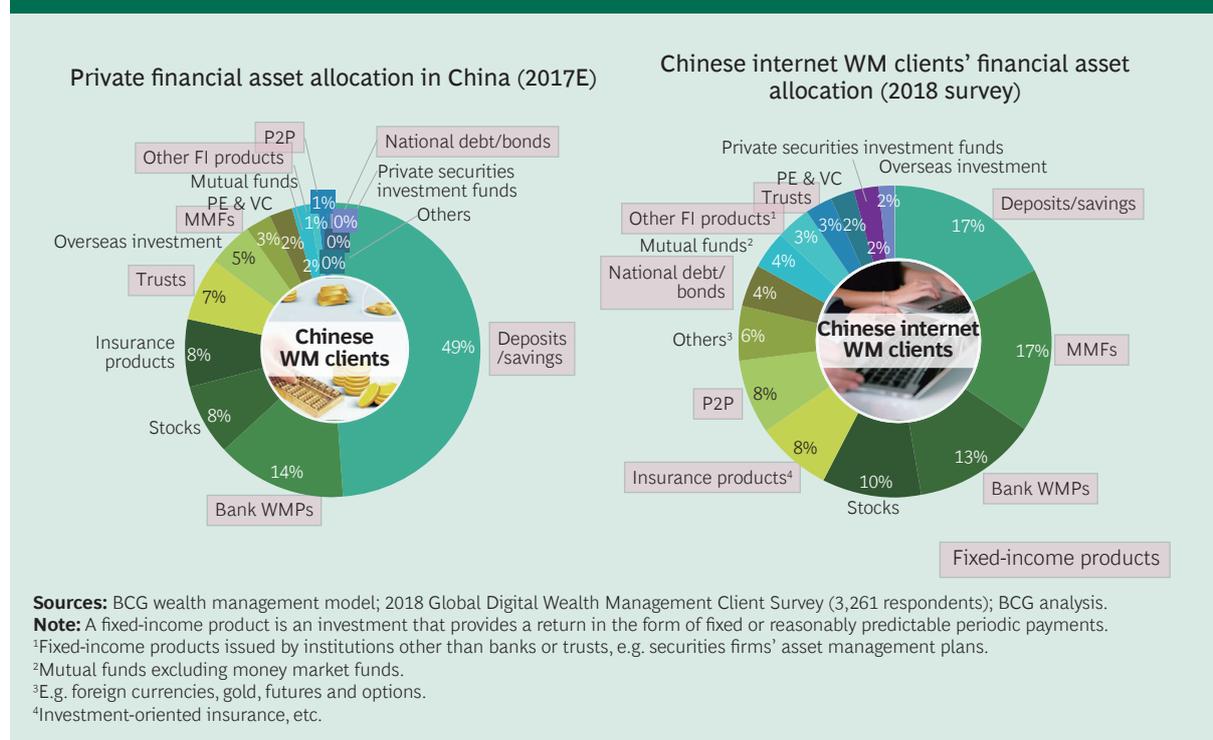
Note: Question: What do you mainly rely on for investment decisions? (select ONE).

evenly balanced. According to the client survey, fixed income products account for an overwhelming 80% of Chinese clients' investments. Eighty five percent of clients invest more than 50% of their wealth in fixed income products, which reflects the influence of the implicit guarantee.

In terms of asset allocation, the survey indicates that bank deposits represent 49% of Chinese wealth management clients' investable assets. In addition to bank deposits, Chinese clients primarily invest in bank wealth management and other fixed-income products, which reflects the immaturity of the market. This derives partly from the fact that varied portfolio strategies are not widely adopted by Chinese clients, but also from the fact that the market in China does not yet have a wide choice of products.

Similar to the asset allocation demonstrated by Chinese wealth management clients as a whole, fixed-income products account for 73% of the assets of internet wealth management clients, indicating that internet wealth management does not change investor preferences. (See Exhibit 20.) However, the difference lies in that while bank deposits are substantially preferred in the broader wealth management market, money market funds and bank wealth management products are greatly favored by internet wealth management

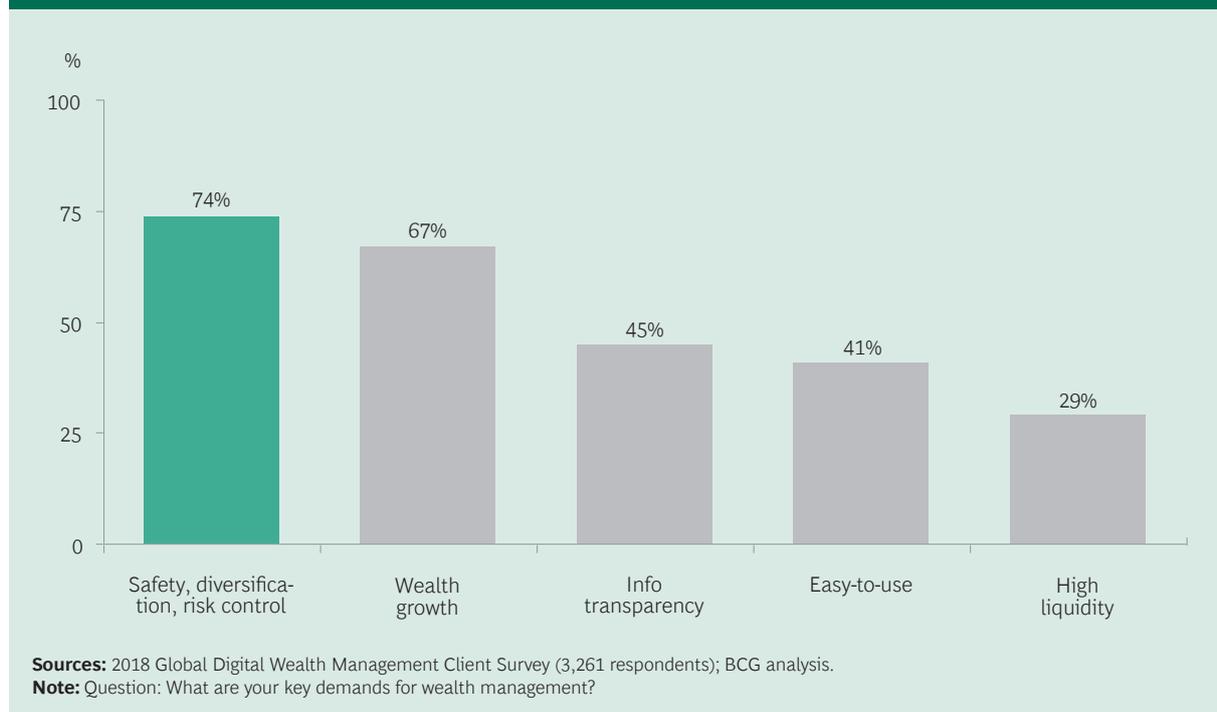
Exhibit 20. Fixed-income Products Represent the Mainstream Choice Among Chinese Wealth Management Clients



clients. By and large, Chinese investors apparently prefer fixed-income products and their choices are largely undiversified.

Chinese clients' risk awareness is still associated with institutions' capability for guaranteed repayment rather than underlying assets. According to the client survey, 74% of the clients consider safety as a key requirement for wealth management. (See Exhibit 21.)

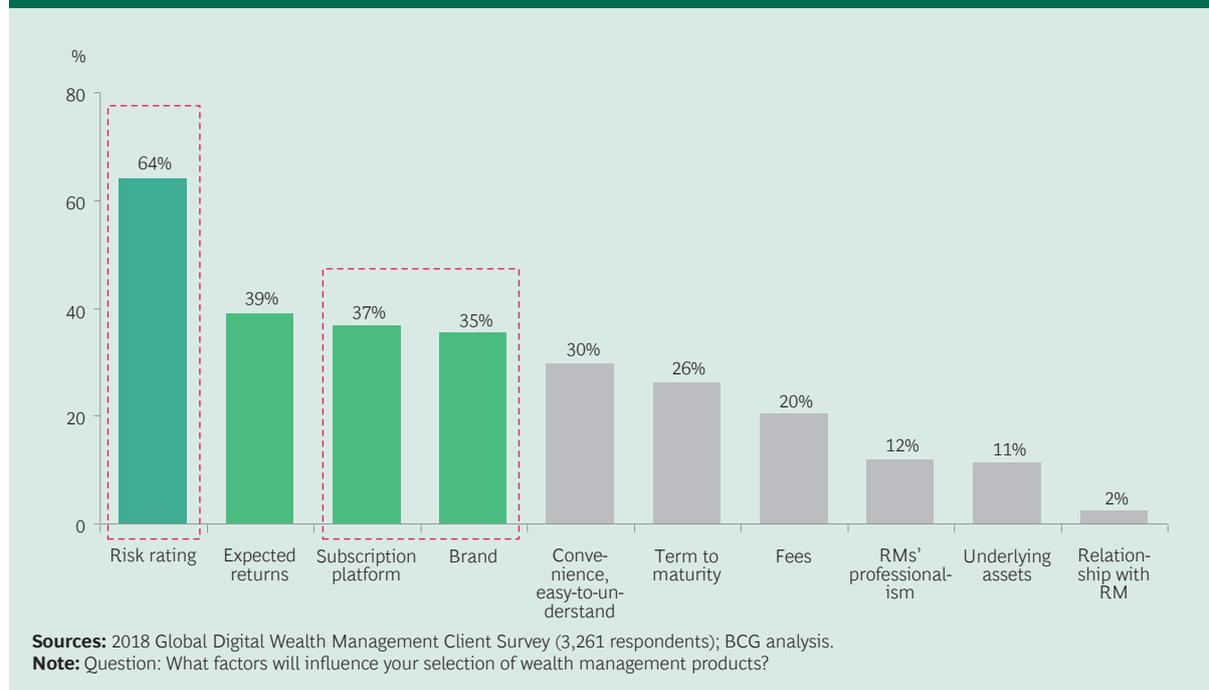
Exhibit 21. Safety Is a Key Demand for Wealth Management



When it comes to product selection, 64% of the clients regard risk ratings as the primary consideration, indicating that Chinese clients have high risk awareness. (See Exhibit 22.)

However, we have found that, among other factors, more clients regard the subscription platform (37%) and brand (35%) as key indicators of risk while significantly fewer clients consider maturity (26%) or the nature of underlying assets (11%) as important. This demonstrates two issues. Firstly, although Chinese clients have strong awareness of risk this is largely connected with the trust they place in the implicit guarantees offered by platforms. They avoid risk by looking for products offering guaranteed repayments or from secure institutions. Secondly, due to limited financial knowledge, Chinese investors

Exhibit 22. Risk Ratings, Returns, Subscription Platforms and Brands Are the Key Considerations in Selecting WMPs



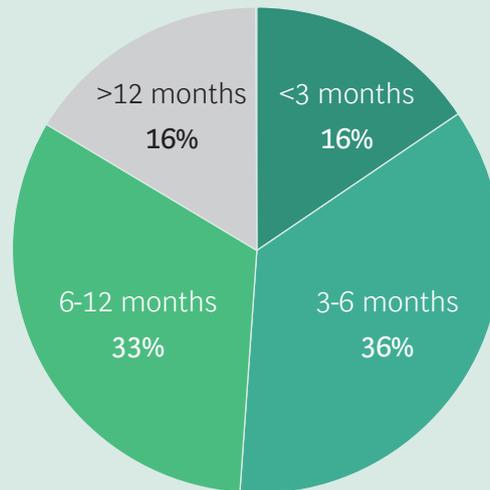
rely on institutions they know and trust as they cannot independently assess the risks of individual products based on key factors like underlying assets and maturity. It should be pointed out that, in a changing environment, there are significant potential risks associated with absolute trust in guaranteed repayments by institutions.

Chinese investors have short average time horizons. The client survey suggests that, unlike investors in the European and US markets, 84% of Chinese investors have an average investment horizon ranging from 3 to 12 months for their main assets, showing that short-term investments are prevalent in China. This can be attributed to two factors. (See Exhibit 23.) For one thing, mid- to long-term investment products and wealth planning services are in short supply, especially as tax credit policy has yet to be established for retirement savings plans and other products. For another, Chinese investors lack both the awareness of wealth planning and the financial confidence to reap returns from cross-cycle long-term investments.

Investment in short-term speculative products clearly runs contrary to the concept of long-term value investing. For this situation to change, infrastructure and investor education need to be improved and it remains to be seen whether long-term investments will become popular in the Chinese market.

Exhibit 23. Over 80% of Clients Have an Average Investment Horizon Shorter than One Year

Average investment horizon for main assets



Sources: 2018 Global Digital Wealth Management Client Survey (3,261 respondents); BCG analysis.
Note: Question: How long is your average investment horizon for your main assets?

2.4 Tightening Regulation and New Rules Drive Market Transformation

2.4.1 Tightening Regulation Will Reshape the Wealth Management Landscape

China's wealth management market had been growing very quickly until the so-called "growing pain" deceleration in 2016. At this point, the central authority announced its "de-leveraging and de-risking" policy and an orderly tightening of regulation commenced. Internet finance regulation, for example, began this year.

In 2017, the CBRC commenced inspections to uncover the so-called "Three Violations, Three Arbitrages, Four Improprieties" in an effort, to "leave no loose ends in fixing the wrongs". Newly introduced regulations, such as the "new asset management rules" in 2018 and Document No. 29, also indicate that a stricter regulatory environment for the asset management market is likely. A three-pronged approach of license-based, behavioral and look-through regulation is emerging.

An effective and important way to avert systematic risk is to raise the barrier to market entry through license-based regulation. The internet finance industry that has been plagued by disorder and confusion in recent years and license-based regula-

tion is key to restoring trust and regulatory compliance. At the fifth National Financial Work Conference in 2017, it was stressed that further expansion of regulation to cover all financial activity was required, and also that all institutions should need a license for their operations. In the internet finance industry, a license is valuable in that it provides testament to the holders' capability to create products; it also acts as a gatekeeper that excludes unqualified players that might seek to profit from the prevailing uncertainties. Further, an improved credit reference system will serve to get rid of the bad apples, clearing the path for compliant internet finance.

Shifting from “vertical regulation” to “horizontal regulation” with a focus on financial institutions’ functions and behaviors. Over the last few years, China has been phasing in a mechanism to regulate the behavioral aspect of internet finance. The goal is to scale and tighten regulation of market participants’ functions and behavior, and to toughen prudential supervision and market access rules so that the sector might better serve the real economy. In the past, the “horizontal” model of regulation had worked well as “separated operations” were common. But as the “mixed operations” model gains prominence, the regulatory authorities have recalibrated their approach, initiating a transition towards functional and behavioral regulation.

In a mixed operation environment, the regulatory focus is on the type of business activity rather than the institutions performing them. Meanwhile, behavior-oriented regulation targets specific patterns of behavior, freeing regulators from the need to carry out exhaustive horizontal monitoring of entire financial institutions.

As they gain traction, both approaches promise to bring the online asset management market under better control, and, in particular, to reinforce supervision of licensed institutions. In addition, they should help improve risk control for financial institutions operating across a variety of industries and markets, which in turn better prevents financial risks becoming systemic.

Look-through regulation is likely to take root over time. It will enable the regulator to look into the heart of a business, giving any subsequent action both precision and the necessary clout. Look-through regulation means looking beyond the surface of any online financial product and at its funding sources, structure and underlying assets. The information gained this way will be used to determine the nature of the business, and, accordingly, to outline regulatory and behavioral requirements.

2.4.2 New Asset Management Rules Heralds a New Wealth Management Market

The PBoC, CBIRC, CSRC, and SAFE jointly published *Guiding Opinions Concerning Stan-*

Standardization of Asset Management Operations by Financial Institutions (“new asset management rules”) on April 27, 2018. It deals with financial institutions of all types—which is in itself a first—and sets out clear requirements for the asset management business. Essentially, the new asset management rules will have a threefold impact on the wealth management market: screening investors, tightening supervision on financial institutions and reshaping industry dynamics.

Screening investors: Raising the bar for accredited investors and focusing more on investor suitability. Under the new asset management rules, offerings are divided into privately and publicly offered products. Thresholds for accredited investors have been significantly raised under the new regulation. In terms of “family financial assets”, net assets no less than RMB 3 million and total assets no less than RMB 5 million are required; Though the bar on average income per family member has been lowered from RMB 500 thousand to RMB 400 thousand, accredited investors are required to have at least 2 years of investment experience.

In addition, in terms of the minimum amount of investment of a single product, PE products require investment amount no less than RMB 1 million according to the PE supervision interim procedures; fixed income and mixed products have lowered the required minimum investment to RMB 300 thousand and RMB 400 thousand respectively. The issuance of the “new asset management rules” not only marks that the appropriateness of investment will be further regulated, but also means that the feasibility of asset allocation will rise for affluent clients.

Tightening supervision on financial institutions: Ensuring independence of third-party entities. Financial supervisors will step up protection for financial consumers by placing financial service providers under greater scrutiny.

The “new asset management rules” issued in April 2018 has stated in article 14 that “in the issuance of asset management products, financial institutions should entrust their assets to independent third parties with custody qualification”. During the transitional period, banks with securities investment fund custody qualification should ensure that assets are properly segregated when administering their own wealth management products. After the transitional period, the banks with securities investment fund custody qualification should set up an independent entity to take over the asset management operation. In cases where such independent entities exist in name only and perform no real functions, supervisory authorities should step in and take appropriate disciplinary and remedial action.

Reshaping industry dynamics: Carrying out an orderly removal of implicit guaran-

tee, and returning wealth management to its root of asset administration.

Firstly, in the event that a fund has difficulty meeting redemptions, asset management business must be kept off the balance sheet, and financial institutions must not bail out the borrower. Secondly, financial institutions must adopt net value-based management to, and the net asset value should be generated according to accounting standard of business enterprises to reflect the true risk-return of the underlying financial assets. Thirdly, financial institutions must ensure every asset management product is separately managed and audited under a separate account, and are not allowed to use the funds raised through such products for capital pooling—a practice characterized by rollover issuance, cross-product operation, and unjustified pricing.

A shift away from implicit guarantee towards net value-based management should create an environment where wealth managers exercise full discretion and investors bear the risk. This would mark a return to the essence of asset management—one that puts new demands on the true capabilities of banks. It helps to further regulate the wealth management market, and encourage industry participants to innovate on the basis of regulatory compliance. A new industry landscape will then emerge.

3. Technology Helps Drive Transformation and Build Trust in China's Wealth Management Market

3.1 Foundation for Client Trust in Wealth Management Changes with Market Transformation

“Trust” figures prominently in conversations with all wealth management clients. Trust in brand determines the selection of financial service platform, and trust in the RM determines the selection of products. Judgements about trustworthiness inform the decision on whether to invest in a specific product or not. This makes trust the overarching theme of digital wealth management.

3.1.1 The Foundation for Trust Will Change in the Post-implicit-guarantee Era

Chinese wealth management clients base their trust in financial institutions upon the latter's ability to guarantee returns on principal and also their personal relationship with the RM. This will no longer be true when the market is better regulated.

Believing in “too big to fail” status of large institutions and implicit guarantee? It is well known that Chinese investors hold a near-religious faith in large institutions, convinced that with size comes the ability to guarantee principal repayment. Those investors are ill-equipped to make judgements on what constitutes real wealth management competence, such as the ability to control risks, allocate across major asset classes, and offer investment advisory services. In the era of implicit guarantee, large institutions coasted along with little incentive to improve their offerings. Going forward, in a better-regulated market, large banks will not be able to rely on their size alone to capture market share. In this case, players deficient in real risk control could face a crisis of trust. Then how should clients change their criteria for trusting RMs?

Believing in RMs' communication skills and responsiveness? Wealth managers used to engage with clients mostly through RMs, on whom clients relied heavily as a result. Unfamiliarity with products and insufficient knowledge about allocation across major asset classes also accounted for the fact that investors chiefly based their trust in RMs upon their responsiveness in communication. So, without giving due weight to investment research and advice, understanding of client needs and the ability to educate them, judgements of RMs are less comprehensive than in mature markets. However, in the post-implicit-guarantee era, a more complex and sophisticated market should emerge. So how will the criteria change? (See Exhibit 24.)

Exhibit 24. Where Should Investors Place Their Trust in a New Situation?



3.1.2 Technology Helps Wealth Managers Renew Client Trust

Technology helps renew client trust. As the implicit guarantee bows out, the traditional foundation on which client trust is built will be shaken. Wealth managers now must offer products that clients truly need, manage the consequent risk and deliver steady returns. Technology will be key to this transition. Technology helps financial institutions gain deeper customer insights and better reveal products' risk-return profiles. Technology also helps wealth managers improve the investment experience.

Technology helps China get ahead in wealth management. China is a late starter in the wealth management business. Wealth managers and individual advisors lack both experience and competence compared to their peers in the mature markets. These are the two metrics which are highly valued by wealth management clients in the mature markets and they are those on which China's wealth management market will rely for future development. This is where digital technologies and tools come in: they allow wealth managers and investment advisors to offer clients a wealth of market insight, investment views and allocation advice. That could propel the development of China's wealth management industry towards professionalism and greater sophistication.

3.2 Technology Rebuilds Trust in China's Digital Wealth Management Market in Three Ways

3.2.1 “Know Me Better than Myself” : Wealthtech Helps Wealth Managers Know More About Customer Needs than Clients Themselves Do

Wealth managers in China have in the past struggled to gain a deep knowledge of customer needs. New regulation has mandated that they must now perform KYC functions on new clients, but three factors stand in the way of gaining a comprehensive view of clients and their wealth management needs. Firstly, most wealth managers perform a limited KYC routine, only identifying clients' net worth and risk appetite based on simple questionnaires and client disclosure. They lack both more objective and more diverse sources of information. Secondly, there is an absence of effective verification. Clients sometimes purposefully omit or misstate information in order, for example, to pass the vetting procedure or to conceal their true risk-tolerance. Wealth managers don't have the means to check the veracity of the information submitted. Thirdly, there is a lack of effective analytical methodologies. Most wealth managers do not drill as deeply as they should into customer profiles to gain a multidimensional and comprehensive customer portrait. This makes them unable to match the right asset allocation strategies, marketing approaches and service style to the right customer.

Using technology to create precise, three-dimensional customer profiles. In the age of big data, the practice of data sharing enables a more comprehensive and precise understanding of clients than before. Online transaction history, e-commerce platform records, and third-party credit data can all be used to gain a more complete knowledge of clients' investment capabilities, expected returns and risk appetite. A study of past patterns often reveals facts about clients of which they themselves are not even aware. For example, a self-styled risk-loving investor may in fact be very cautious in practice, while another self-proclaimed conservative may prove exceptionally daring. With the help of technology, companies can anticipate customer behavior with greater precision. Beyond that, the latest advancements in smart customer service technologies are also helping financial institutions better identify clients' personalities and psychology.

In fact, some leading Chinese financial institutions are already trying to build fully rounded customer profiles. Lufax, for example, has used big data to create a “360-degree client view”, tracking everything from credit data, daily transactions, investment behavior and money laundering risks. Whenever a customer might tweak the data on investment preferences and risk tolerance to get access to the products they fancy, the system would use historical information to reveal the true profile and avoid matching the wrong products to the wrong customers.

3.2.2 Real Customer Centricity: Technology Imbeds Financial Services with Transparency, Impartiality and Better Client Experience

Technology pushes wealth management towards greater transparency. Technological advances have meant that information can be presented in an easy-to-read manner. Mobile technologies have radically shifted the way clients access information. Product information that used to be communicated person-to-person is now conveyed universally. Technology is making Wall Street much more transparent: Investment advisors used to be less than 100% clear and responsive in managing clients' accounts, but now, with AI algorithms and mobile tools available, wealth managers are under pressure to present portfolio rebalancing information to investors in a clear and real-time manner.

Technology forces wealth managers to stand in clients' shoes. Wealth managers used to exploit asymmetric information and market dominance to their benefit, selling clients products that brought in the most profits even though they might have been a bad fit for the clients. With greater transparency and fiercer competition in the industry, wealth managers are compelled to act in clients' interests and to offer nothing but the best asset allocation solutions. In the digital age, clients are empowered to vote with their feet and choose wealth managers who best take care of their interests.

Technology delivers better customer experience throughout the entire wealth management journey. Technology helps wealth managers to offer more alternatives, allowing clients to choose how their accounts are managed and even how a transaction is executed. All in all, technology is colouring the entire wealth management process, turning it into a more congenial experience, without clients even being aware of its presence.

UBS, a global leader in wealth management, is in the forefront of exploiting technology to create a more diverse, integrated wealth management experience. Before any investment decision is made, UBS will use algorithms to collate data and the results of a questionnaire to build a customer profile. Clients can choose to place their assets at the disposal of a UBS human advisor or a robot for management. Once the assets are allocated the bank uses AI technologies to manage the portfolio and regularly update clients with relevant information. Apart from that, UBS has explored how interactive voice response and virtual reality technologies can improve the wealth management experience.

3.2.3 Capable of Investing on Clients' Behalf: Empowered to Invest Using Knowledge About Products and Clients

Empowering investment advisors and independent investors alike. Technology

offers ways to capture data on a timely basis and derive from it insights to inform investment decisions by wealth managers. Meanwhile, for clients who want to make their own investment decisions, technology also offers a lot. For example, wealth management firms can offer timely, extensive and more perceptive analysis to clients that possess some investment expertise, while for those lacking that expertise, data can be converted into simple, easy to understand product ratings.

Automatic portfolio rebalancing through dynamic, real-time tracking of market movements and asset allocation status. Machine-learning algorithms, constantly fed with data and market information, can make real-time predictions about financial market movements which then informs timely portfolio rebalancing. There are also technologies that can be used for real-time monitoring of investors' financial positions and, accordingly, sending alerts and portfolio rebalancing suggestions to investors.

Technology can strip away human irrationality and ensure execution of pre-set investment strategies. The Chinese market has plenty of shortsighted investors but the use of technology can help provide a buffer against irrationality. It makes it more likely that investors follow through a pre-set strategy. This can prove an effective antidote to the “buying the winners and selling the losers” approach to market volatility.

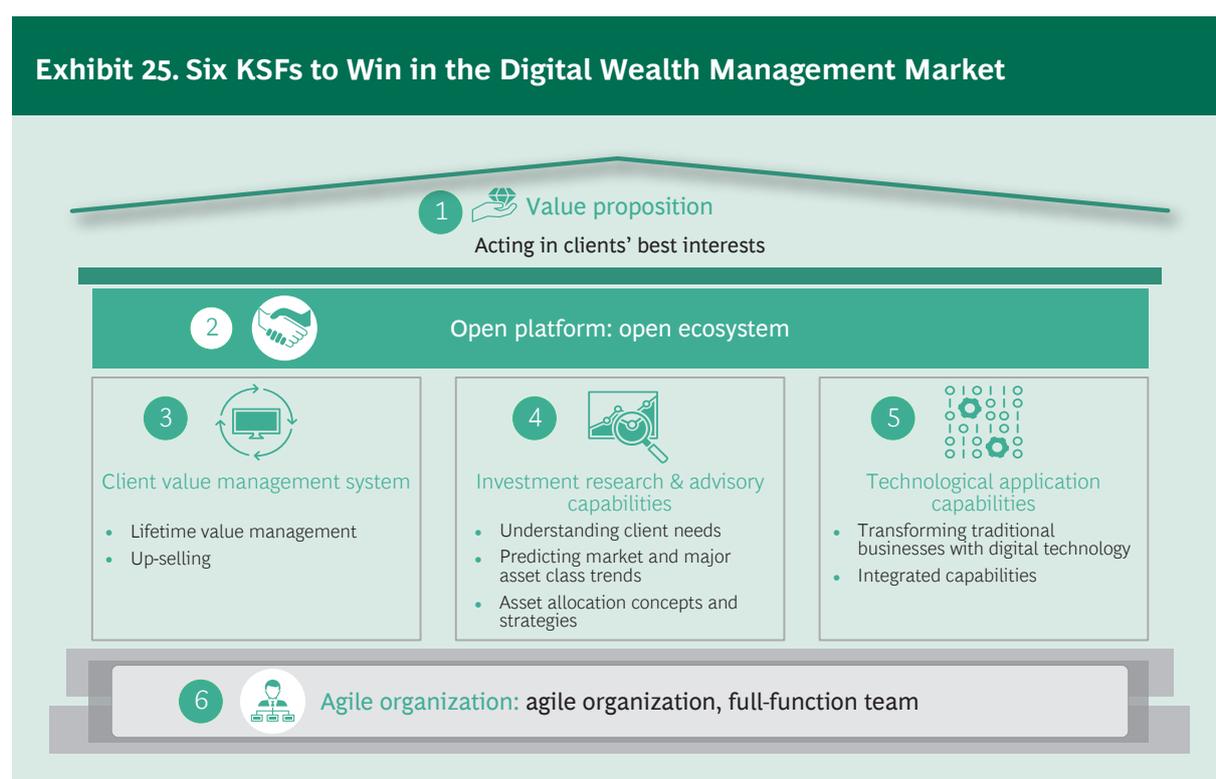
3.3 An Era of Leaps-and-bounds Development of the Wealth Management Industry Is in Sight

In China's burgeoning wealth management market, compared to more established markets, both institutions and practitioners have more progress to make in improving their capabilities. Technological progress will present the market with catch-up opportunities. Those enabled by technology and possessing expertise will be the future winners. We have every reason to believe that from China's wealth management industry a breed of bigger, more successful companies will emerge and lead the world.

4. Winning Strategies in China's Future Digital Wealth Management Market

4.1 Six Key Success Factors to Win in China's Digital Wealth Management Market

What will it take to win in China's promising digital wealth management market? We believe that a platform cannot be successful without six key success factors. (See Exhibit 25.)



- **Value proposition**

Customer-centric value proposition. Traditional wealth managers typically charge commissions on the basis of sales and therefore could not truly put clients first. Some traditional financial institutions continue to stress short-term revenues or profits, which undermines their professional neutrality.

In a digital age characterized by increasingly accessible and clear information, the wealth management industry has become influenced by the customer-centric approach of new

Exhibit 26. Digital Wealth Management Is Changing the Traditional Commission-based Pricing Model in Mature Markets



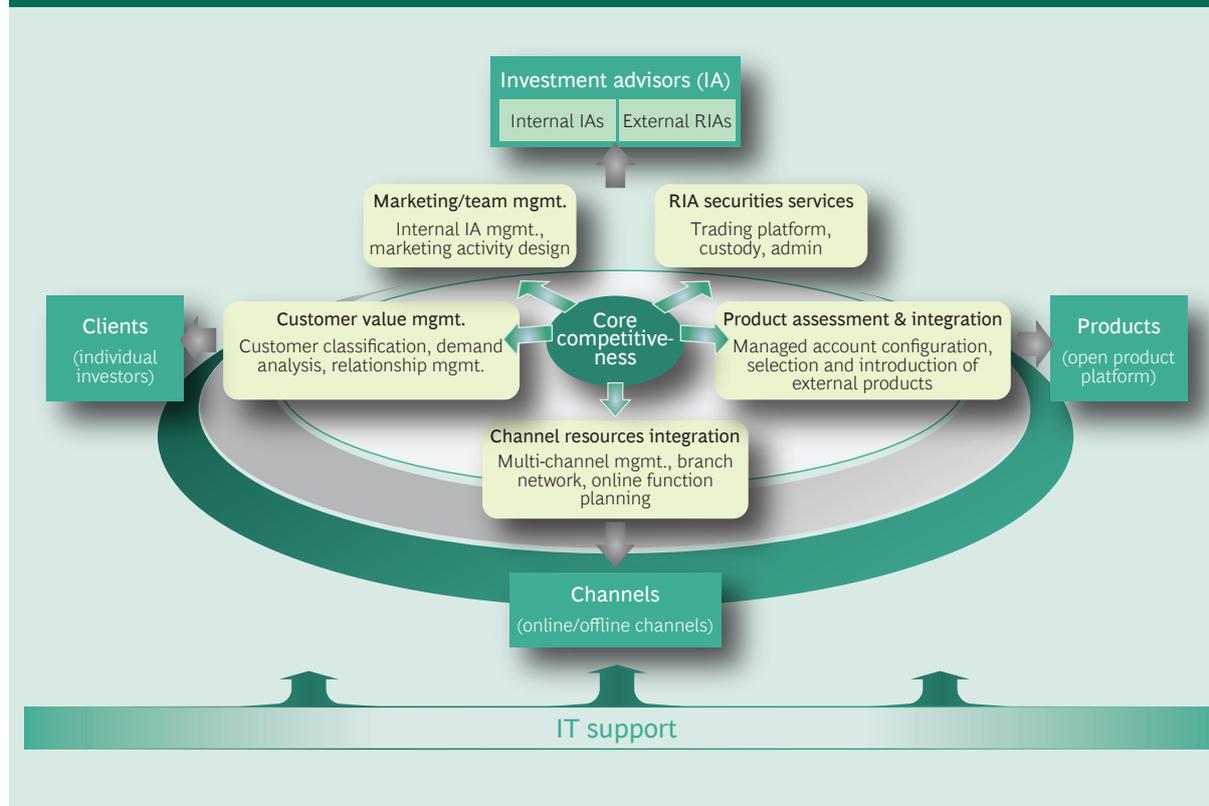
media firms and this has hastened its return to the core function of “fiduciary wealth management services.” To succeed in the digital wealth management market, wealth management platforms will have to become more customer-centric or they will alienate clients. This shift in the value proposition will change the pricing model from traditional sales-led commissions to AuM-based management fees. Technological advancements, particularly robo-advisory services, will drive the customer-centric transformation of the wealth management industry. (See Exhibit 26.)

- **Open platforms**

Open product platform. Wealth management is essentially asset allocation. To meet diversified client needs, wealth management institutions have to offer a broad spectrum of products. In this sense, institutions offering only one particular product type will find it a struggle to meet the needs of HNW clients that typically want a complex asset allocation. The building of an open product platform entails not only improved product selection and assessment capabilities, but also an enhanced dynamic asset allocation function.

Open advisory platform. Digital wealth management makes professional investment advice accessible to a wider group of clients, but professional RMs are unlikely to be completely replaced by digital technology. Digital wealth management platforms seeking higher-value clients face the challenge of building a team of professional RMs/investment advisors in a cost-effective way to compete effectively with traditional private banks. Digital technology presents wealth management institutions with various options. On the one hand, it allows clients the freedom to select RMs, and on the other hand, it allows the construction of an open platform for third-party RMs to provide more professional services.

Exhibit 27. Charles Schwab's Open Advisory Services Platform

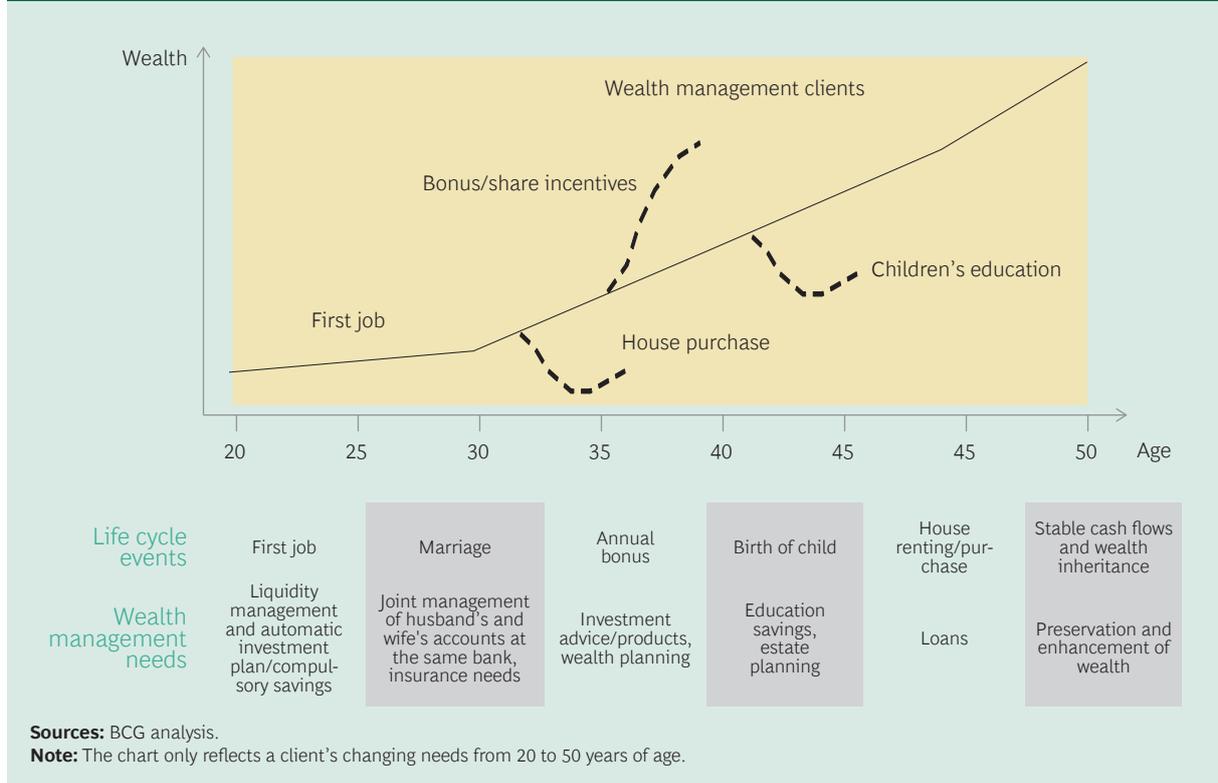


For example, Charles Schwab, originally a discount broker, has built an advisory services platform for external independent RIAs, establishing itself as a leading one-stop wealth management platform in the United States. (See Exhibit 27.)

- **Client value management system**

Client lifetime value management system. In a changing market environment, it is critical for digital wealth management players in China to reexamine the needs of their current clients and establish a value management system for clients from the cradle to the grave. Leading global players typically have a well-established client lifetime value management system, which emphasizes long-term wealth planning across every stage of a client's life. The needs of every client change with age. Young clients place emphasis on liquidity and wealth accumulation, middle-aged clients focus on wealth preservation, investment growth, retirement savings and children's education, while elderly clients consider wealth inheritance. Leading financial institutions can offer a diverse range of products tailored to clients' needs at different life stages. (See Exhibit 28.)

Exhibit 28. Wealth Management Needs Throughout the Client Life Cycle (Clients Aged 20-50 as an Example)



Morgan Stanley, for example, offers: 1) wealth planning customized to clients' needs and goals; 2) wealth preservation and enhancement strategies designed to help clients manage market risk and build wealth; 3) wealth allocation solutions that help clients manage wealth flows and allocation; and 4) wealth transfer services that help clients create lasting value and develop inheritance plans. In this way, the company effectively manages client value throughout his or her life. (See Exhibit 29.)

Another case in point is CMB. Using big data technology, it creates a comprehensive view of existing clients and identifies four types of events that trigger changes in client demands, which supports active "event-driven" marketing. Moreover, aided by dynamic analysis of both internal and external data sources, the bank offers more than 7,000 personalized product portfolios on its mobile app, thus providing highly effective client value management. (See Exhibit 30.)

Upselling clients. China's wealth management market is expected to sustain rapid growth by an expanding and increasingly wealthy client base. In this context, digital

Exhibit 29. Morgan Stanley’s Wealth Management Services Across the Client Life Cycle

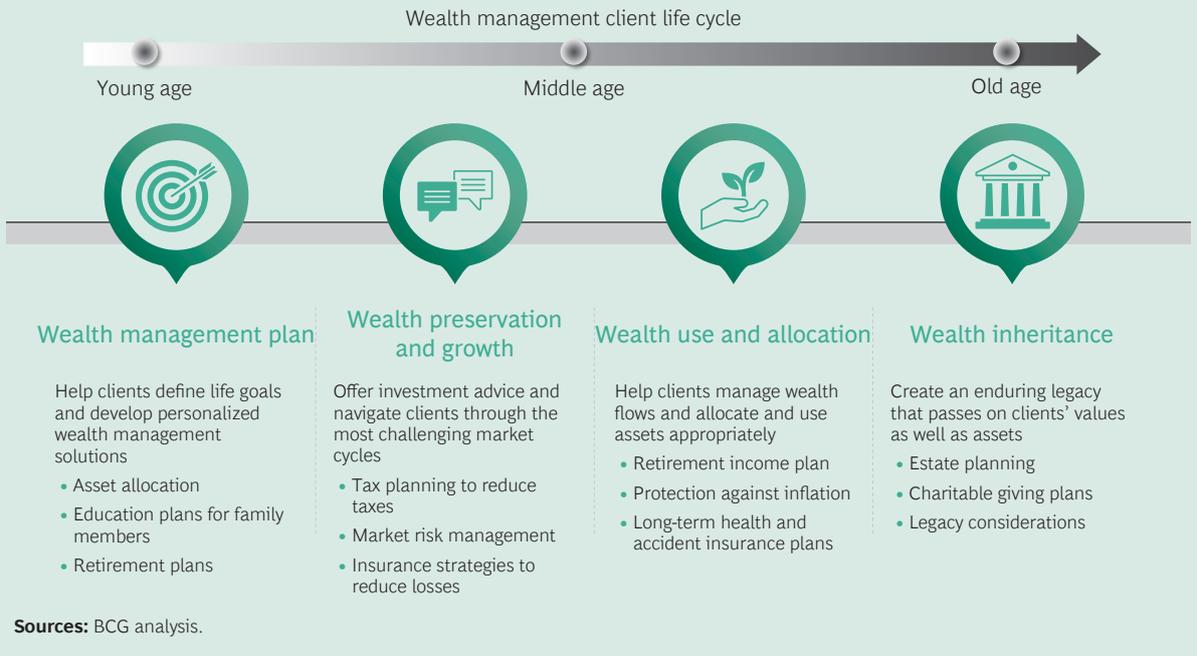
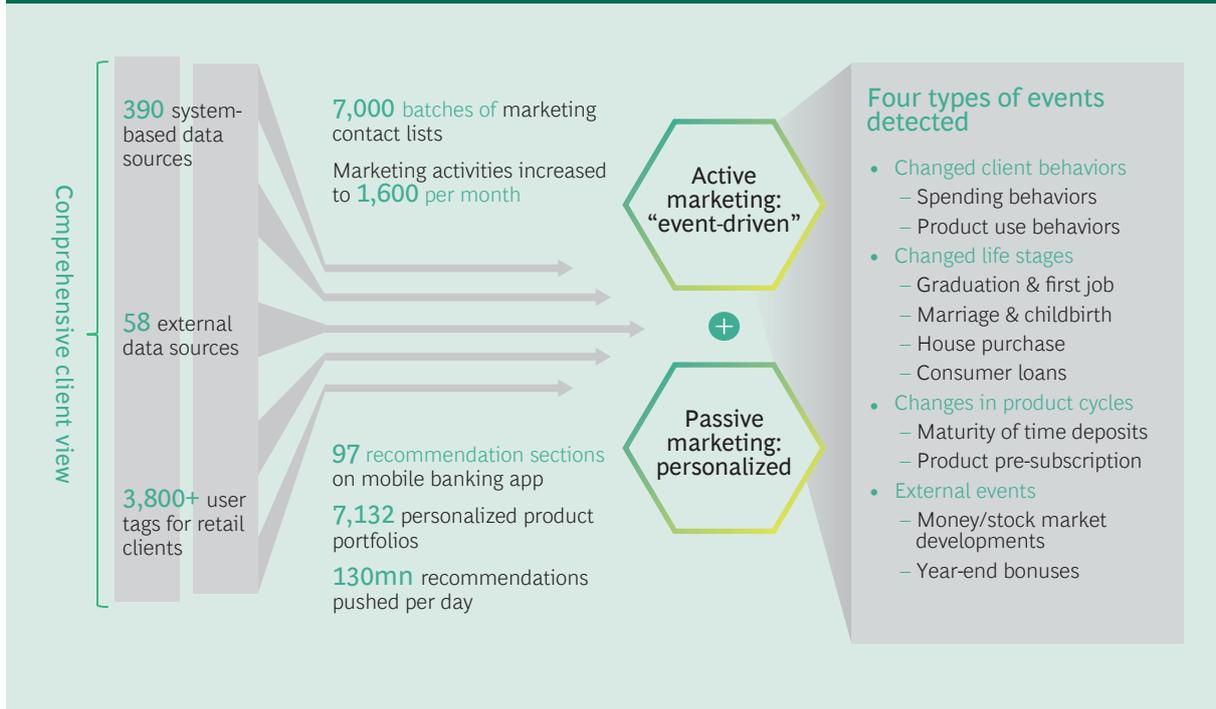


Exhibit 30. CMB’s Big Data-driven Deep Client Value Management



wealth management platforms need to explore ways of upselling to better serve these higher value segments. They should cater to the new needs of existing clients while at the same time capturing larger and more profitable market segments. Players that in the past served long-tail clients under the traffic-driven business model should maximize client value by shifting their focus from liquidity management to wealth management in a real sense.

- **Investment Research and Advisory Capabilities**

The essence of wealth management is asset allocation which relies on a platform's research and advisory capabilities. We will discuss these capabilities in three respects.

Putting clients first and understanding their needs. Client demands for wealth management change according to age, assets, and mentality. Understanding client needs clearly is key to being able to offer sound investment advice.

Predicting the market and major asset class trends. Financial institutions must be able to understand market trends quickly to form a clear perspective and offer advice on asset allocation. Leading wealth managers often assemble large but different research teams, including, for example, including macro research, major asset class research, specific investment strategy research and product research. Digital technology can help wealth management institutions grasp market dynamics more comprehensively and more quickly, and it can also facilitate the more effective communication of market perspectives and asset allocation advice to investors.

Implementing asset allocation concepts and strategies. Asset allocation is still a relatively new concept in China's wealth management market. In the implicit guarantee era investors only needed to pay attention to issuers, maturities and yields. Many wealth management institutions simply acted as sales channels. In future, these institutions will return to a more clearly defined wealth management role, and they will need asset allocation skills to help clients avoid risk and encourage sales. But large scale internal and external education is required before clients appreciate those skills, and wealth management institutions need to find ways to increase customer awareness.

CMB's Machine Gene Investment, for example, employs big data analytics and AI algorithms to analyze user profiles and risk appetite before suggesting the optimal fund allocation. Furthermore, it offers "one-click optimization" to dynamically adjust portfolios based on modeling with multidimensional data covering market trends and sentiment.

- **Technological application capabilities**

Transforming traditional financial businesses using digital technology. Successful management requires a combination of technology and financial know-how. The “360-degree client view,” mentioned above, which was introduced by Lufax, integrates technology with the digital wealth management process and represents a shift from the traditional rigid approach. Not only does it use technology to categorize investors, but it can also track client data on a continuous basis to identify investment preferences and adjust investment strategy dynamically in real time.

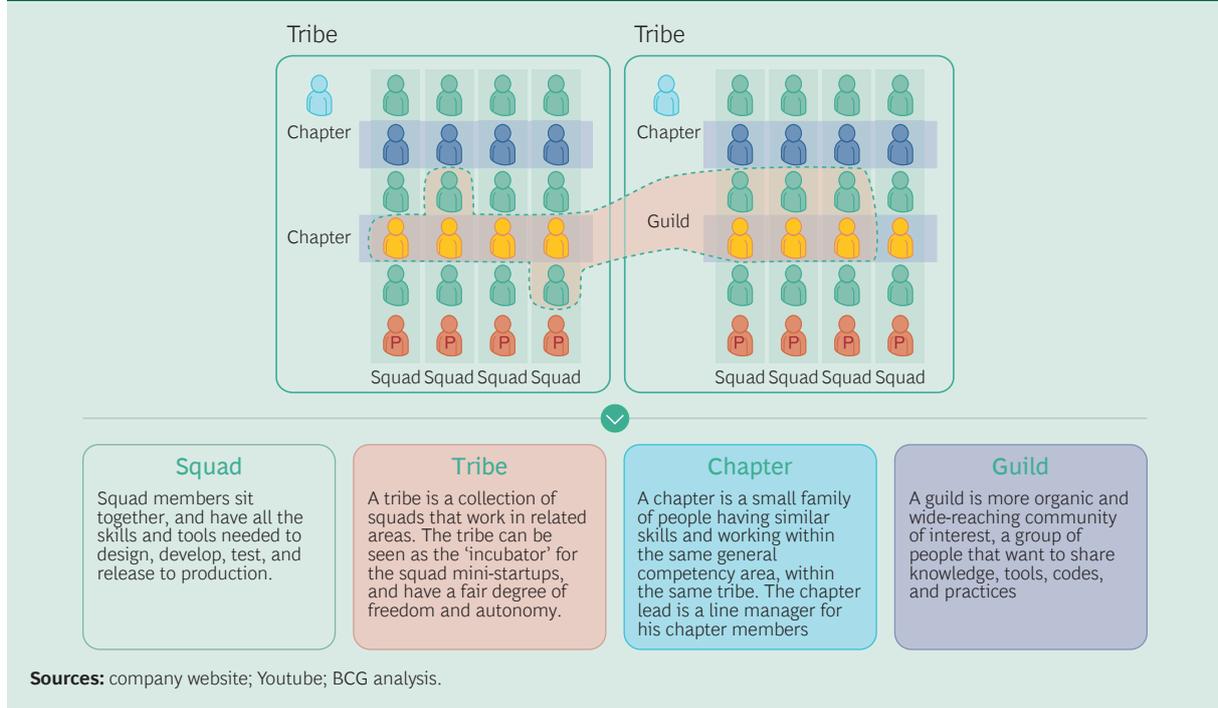
Developing internal integrated capabilities. The development of a digital wealth management platform requires integrated functionalities, but the reality is that some institutions, especially more traditional institutions, often have business lines that do not fully understand technology and IT lines that do not fully understand business. It is thus difficult for them to closely integrate finance and technology, and, going forward, institutions need to recruit staff with more comprehensive skills. They should keep a keen eye on the continuous improvement of employees’ technical and financial knowledge and conduct regular professional training.

- **Agile organization**

Flat organization with cross-functional teams. Digital wealth managers must make sure their organizations are sufficiently agile to respond to a fast changing market. To this end, they should create a flat, un-hierarchical structure, capable of quickly identifying problems and quickly acting appropriately. Employees should be empowered to act on their own initiative, but also be held accountable for those decisions. Any such organization should also incorporate cross-functional teams, each with a clear mission and capable of directly dealing with clients. Each team should have a clear separation of responsibilities within it, with a product manager, technical, marketing, client experience and risk control roles to allow a seamless process from product development to sales. In contrast to the traditional waterfall structure, an agile organization works in series of collaborative sprints with progress tracked either daily or weekly to ensure speedy product launches and problem fixes.

Spotify’s agile organization, for example, comprises multiple cross-functional teams, each responsible for a specific step in the product development process from design and development to testing and launch, ensuring rapid iterations and greater efficiency. In an agile organization, so-called “tribes”, “chapters” and “guilds” within the company can share knowledge and enable each other to better discharge their responsibilities. (See Exhibit 31.)

Exhibit 31. Spotify Uses Multi-functional Squads that Collaborate in Agile Sprints



4.2 Four Types of Institutions Need to Bridge Capability Gaps to Be Future Winners

Based on BCG experience, we suggest that four types of institutions adopt specific strategies to meet the different challenges they face in developing digital wealth management. (See Exhibit 32.)

- **Traffic-based institutions**

To meet the challenge of serving higher-value clients, traffic-based institutions should improve their research and advisory capabilities. Currently, traffic-based financial platforms primarily serve relatively long-tail clients and focus chiefly on cash management and convenience. This model has a limited potential for growth and profitability, and needs to offer a more diverse range of products to clients as they grow wealthier. They should also invest in investment research and advisory capabilities to gradually acquire higher net-worth clients.

- **Vertical institutions**

Exhibit 32. Capability Gaps to Be Bridged by Four Types of Institutions in Respect of Six KSFs

	 Traffic-based	 Vertical	 Traditional	 Integrated
☆ Optimization lever Strength Weaknes				
1 Value proposition	☆	<ul style="list-style-type: none"> Shift focus from sale of specific products to integrated WM 	<ul style="list-style-type: none"> Shift away from sales-orientation to be truly client-centric in asset management 	☆
2 Open platform	<ul style="list-style-type: none"> Offer more diversified products in larger quantities Enhance screening capabilities 	<ul style="list-style-type: none"> Deepen understanding of products, consolidate current areas, and expand into new areas 	<ul style="list-style-type: none"> Shift away from dominance of proprietary products and build an open distribution platform 	<ul style="list-style-type: none"> Build a more open product platform Build an open advisory system
3 CVM system	<ul style="list-style-type: none"> Upsell existing clients to further exploit client value 	<ul style="list-style-type: none"> Deepen understanding of clients and uncover client needs from the perspective of WM 	☆	☆
4 Investment research & advisory	<ul style="list-style-type: none"> Build stronger investment research & advisory capabilities, and serve upward moving clients 	<ul style="list-style-type: none"> Build an investment research & advisory system, and drive transformation towards comprehensive WM 	☆	<ul style="list-style-type: none"> Leverage technology to improve professionalism and efficiency of investment research & advisory
5 Technological application	☆	<ul style="list-style-type: none"> Capitalize on technology to deepen understanding of clients and products 	<ul style="list-style-type: none"> Enhance tech-driven value Drive tech-enabled business transformation 	☆
6 Agile organization	☆	☆	<ul style="list-style-type: none"> Break department silos to ensure quicker response to client needs 	☆

Sources: BCG analysis.

Vertical institutions face the challenge of changing their value propositions. They need to explore ways to expand business areas by building on their strengths. Most vertical institutions have built a significant client base and have skills in a specific asset class. They should consider how they can build on these strengths to increase their share of wallet and generate further growth. They should also deepen their knowledge of both platform products and their client base so as to derive more value from the latter than simply brokerage fees. They could also consider strategic partnerships with large, integrated platforms to complement respective strengths and maximize client value.

- **Digitalized traditional institutions**

They should enhance their technological capabilities and break through institutional constraints to be truly client-centric. Traditional financial institutions often face institutional constraints. Such issues as the silo-ing of businesses, entrenched internal conflicts of interest and a stringent short-term performance appraisal model tend to make banks insufficiently focused on long-term client value and consequently make inadequate technological investment. Although many traditional financial institutions have established digital platforms, they tend to use them chiefly as sales channels and have yet to build a truly digital business model. This business model needs re-adapting before they

can make real headway in digital wealth management, and such endeavors as establishing an independent subsidiary or forging partnerships with outside investors could help.

- **Integrated institutions**

Integrated institutions should build platforms that are more open and enhance their ability to provide customized services to unlock growth potential. Integrated institutions typically have a strong client base and comprehensive functionalities, including open product platforms and basic investment research systems, and they are keen to find out what clients need in terms of investment. Going forward, they should make their platforms more open to partnerships with top asset managers, tech companies, and independent investment advisors to achieve further growth. They also need to enhance their management of different client segments by providing a more personalized, tech-driven service. In this manner, they will augment their role to one offering a simple product platform to one offering comprehensive wealth stewardship

5. Creating a Favorable Environment for Transformation

5.1 Enhancing Investor Education in Terms of Content, Interactions and Forms

Investor education is crucial to developing mature wealth management clients and encouraging the healthy development of the wealth management market. As China's wealth management market becomes better regulated, clients' traditional perceptions and wealth management methods will be challenged. Through investor education, institutions can help improve clients' financial knowledge and increase their risk awareness so that they can respond to the challenges. In order to foster a more orderly and more mature market, all players should commit themselves to investor education from three aspects.

Establishing a comprehensive investor education content system. The investor education content that China's wealth management institutions currently provide is quite fragmented, covering a limited range of topics. To meet client needs, institutions should build a comprehensive investor education content system that helps clients improve their investment capabilities. Specifically, the system should cover product knowledge about major asset classes and product categories, market trends such as removal of implicit guarantee, investor suitability, net-value-based management and deleveraging, as well as wealth management concepts intended to strengthen risk awareness and encourage lifetime wealth management. As the largest mutual fund company in the United States, Vanguard's investor education covers the entire individual investment decision-making process, including goal setting, product features, risk profiles, asset allocation advice, online trading guidance, tax planning, and post-investment monitoring and adjustment. It also provides interactive tools such as online charts to enhance clients' learning. High-quality educational content has helped Vanguard attract more clients and consolidate its leading position in the industry.

Adopting tiered investor education. In China's nascent wealth management market, clients vary markedly in their investment experience and financial knowledge. Newbie clients need rudimentary education, primarily basic product information and wealth management concepts, while more sophisticated clients show high demand for professional information such as macro trends and developments in major asset classes. Therefore, institutions should provide tiered investor education content in appropriate forms tailored to the needs of different wealth management segments to achieve the desired effect.

Reaching investors through diverse ways of interaction. Traditionally, institutions have educated investors in RM interviews or company presentations, which usually cover a small audience with little continuity and poor results. With the aid of technology, now institutions can offer online interactive education via video-based roadshows, pop-ups and online customer service, as well as educational entertainment in such new forms as cartoons and games. However, institutions should continue to provide clients with offline interactive opportunities with RMs and other service specialists, who can deliver more personalized, thoughtful investor education. Investor education that combines the three ways of interactions will prove to be the most effective. TD Ameritrade, the largest online broker in the United States, is a leader in innovative and interactive education. It shares product knowledge and financial market insights with clients via Twitter, Facebook, Amazon Alexa, and TV shows. It has also established an investor education platform to provide online courses on products, trading strategies and asset allocation. After completing courses, clients can also try out virtual trading to improve their understanding. TD Ameritrade has also collaborated with IBM Watson to provide personalized educational content by learning clients' personality and investment preferences based on their voice interactions with Alvi, an AI robot, and their social profiles. Highly recognized in the industry, TD Ameritrade's outstanding investor education services have given it a great advantage amid fierce competition.

5.2 Improving Regulatory and Legal Environments to Ensure a Balance Between Innovation and Risk Control

Globally, there are three major trends in regulating digital wealth management. Striking a proper balance between encouraging innovation and preventing undue risk is key to successful regulation.

Regulating financial services by business function. Countries with fairly mature financial systems generally regulate according to function. For example, in the case of internet platforms, the regulatory agencies in each country decide whether or not to apply specific rules based on the nature of a platform's business operations. They determine whether it is an information or credit agent, and whether its business involves debt or equity financing. For example, the United States defines an online platform that issues loans itself as a "loan issuing institution," while it defines online platforms that sell securities based on existing loans as "securities issuing" and such platforms are regulated by the SEC.

Innovative regulation to encourage development as appropriate. Some countries have begun to establish "innovation centers" or "regulatory sandboxes", among other measures, under the existing legal framework, to promote innovation.

A regulatory sandbox allows new fintech products and services, including digital wealth management products, to be tested in a controlled environment. The United Kingdom, Singapore and Australia have established regulatory sandboxes. Innovation centers support and help institutions to understand the financial regulatory framework and identify potential regulatory and legal issues in any new product.

Applying technology to regulate more efficiently. Regulators can use technologies such as big data, cloud computing and artificial intelligence to collate and share regulatory data more efficiently in real time. Such technologies can also help regulators identify potential problems such as illegal operations and high-risk transactions so that they can more effectively prevent risks. This includes the sharing of regulatory data, as well as the unification of domestic standards and definitions with those in use in other jurisdictions.

Conclusion

After five years of rapid development, China has become a very important digital wealth management market. It has enormous potential, given a better regulated market, a vast wealth management client base and the ready adoption of innovative technologies by leading financial institutions.

However, China's wealth management market is still at an early stage of development. The dominance of products with guaranteed returns is still apparent. Wealth management clients are not as sophisticated as in other markets, especially as middle-class and lower wealth segments are not market savvy and have yet to develop advanced wealth management habits. Moreover, very basic cash management online transactions account for a large share of the overall digital wealth market in China, and wealth managers need to make still greater use of technology to drive their business forward. 2018 will be a crucial year for the development of the wealth management market in China and all market players need to carefully consider their chosen route forward.

Going forward, investors will no longer base their trust solely upon guaranteed repayment or a relationship with an RM but upon proper wealth management professionalism allied to technological expertise. Wealth managers need to adapt to this paradigm shift. We believe that the future winners in China's digital wealth management market will be players that truly focus on clients' interests, build an open technological ecosystem, deliver client value, strengthen investment research and advisory capabilities, improve technological functionality and have a nimble organization capable of responding quickly and intelligently to changing client needs.

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For the purposes of this report, we surveyed 3,200 internet wealth management clients from different age bands, cities, occupations and wealth levels, some of whom are Lufax's clients. We would like to thank Lufax VIP Customer Service headed by Mr. Guorong Jiang, as well as BCG Greater China Financial Institutions practice team, including Mr. David He, who leads the practice team, principal Ms. Tammy Tan, project leader Ms. Natalie Hua, and team members Mr. George Qiu, Mr. Evan Zhang and Ms. Dani Feng. We are also grateful to BCG global expert Ms. Anna Zakrzewski for her valuable advice and assistance. We also thank Lufax Branding & PR for their great assistance in the preparation and publication of this report. Last but not least, grateful thanks go to all clients who have participated in the interviews and survey as well as Lufax management who have facilitated the interviews and the completion of this report.

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The Boston Consulting Group (BCG) is a global management consulting firm and the world's leading advisor on business strategy. We partner with clients from the private, public, and not-for-profit sectors in all regions to identify their highest-value opportunities, address their most critical challenges, and transform their enterprises. Our customized approach combines deep insight into the dynamics of companies and markets with close collaboration at all levels of the client organization. This ensures that our clients achieve sustainable competitive advantage, build more capable organizations, and secure lasting results. Founded in 1963, BCG is a private company with offices in more than 90 cities in 50 countries. For more information, please visit bcg.com.

About BCG China Financial Services Institute

Having served the Chinese market for over 20 years, BCG has established a leading position in financial services, particularly the wealth management and fintech sectors. BCG's financial institutions team has a network of experts on wealth management worldwide and a proprietary global wealth management database (covering nearly 200 large retail banks across countries and regions). In addition, BCG has been doing in-depth studies about China's wealth management. Meanwhile, in fintech and digital areas, we have collaborated with many global and Chinese leading financial institutions. In the past 17 years, BCG has published 17 global wealth reports and 10 China wealth reports. Drawing on its global experience and insights about the Chinese market, BCG puts forward operational advice and creates substantive values for clients, which is highly appreciated by clients and the market.

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About Lufax Holding Ltd

Lufax Holding Ltd (“Lufax Holding”), one of the world’s leading FinTech companies, was incorporated on December 2, 2014.

Lufax Holding operates a number of businesses, including online wealth management, consumer finance as well as financial institution and government financial services. The diversified businesses allow us to share our expertise within the platform’s ecosystem.

Driven by our core belief in “Finance + Technology”, which pushes us to apply advanced technologies to our financial services, Lufax Holding integrates online and offline resources, explores and works on applying technologies to manage assets and liabilities of individuals, enterprises, financial institutions and government. We also implement inclusive finance to support the real economy and help financial innovation.

About Lufax

Shanghai Lujiazui International Financial Asset Exchange (“Lufax”) was founded in September 2011 in Shanghai with a registered capital of RMB 837 million. Headquartered in Lujiazui, Shanghai, an international financial hub, it is a subsidiary of Ping An Group and operates a globally leading online wealth management platform.

Riding the trend of financial globalization and IT innovation, Lufax is dedicated to providing financial institutions, businesses and qualified investors with integrated financial asset information and advisory services that are professional, efficient and secure, underpinned by its robust risk control system.

Officially launched in March 2012, Lu.com is Lufax’s online wealth management platform that provides SME and individual clients with professional financing and investing services at lower costs and with greater efficiency. As of April 2018, it has had more than 35.51 million registered users.

While sustaining rapid AuM growth on its platform, Lufax has also introduced KYC 2.0, a one-of-a-kind investor suitability management system, which covers Know Your Customer (KYC), Know Your Product (KYP), matching products to client risk profiles, information disclosure, and investor education. The system leverages big data and machine learning to create “precise profiles” of investors and offers products tailored to clients’ needs and risk appetite.

