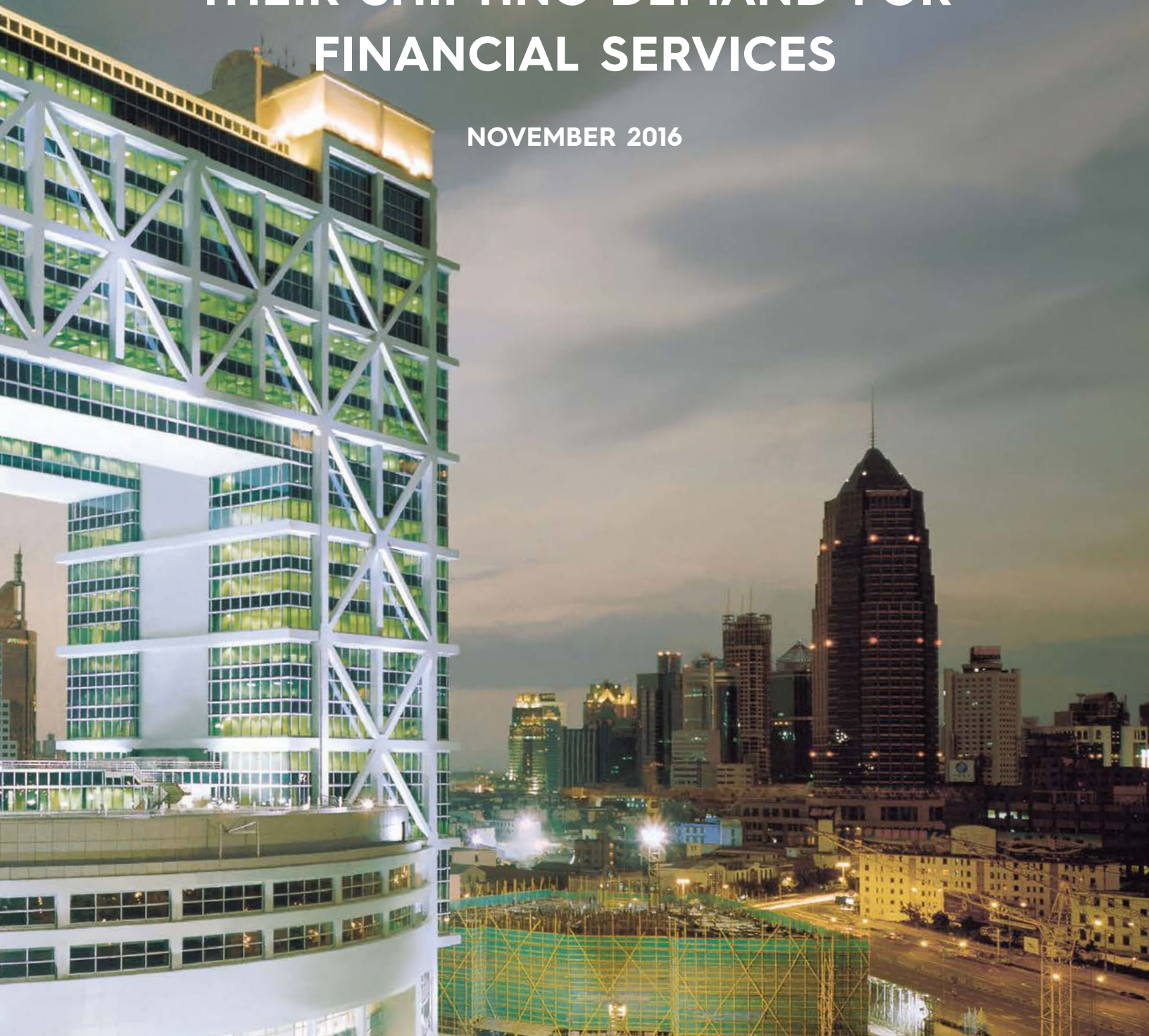


# A WEALTH OF OPPORTUNITY CHINESE CONSUMERS AND THEIR SHIFTING DEMAND FOR FINANCIAL SERVICES

NOVEMBER 2016





THE DEMAND INSTITUTE illuminates the way in which consumer demand is evolving around the world. We help government and business leaders align investments with where consumer demand is headed across industries, countries and markets. The Demand Institute is a non-advocacy, non-profit organization and a division of The Conference Board, which holds 501(c)(3) tax-exempt status in the United States. The Demand Institute is jointly operated by The Conference Board and Nielsen.

[demandinstitute.org](http://demandinstitute.org)

THE CONFERENCE BOARD is a global, independent business membership and research association working in the public interest. Its mission is unique: To provide the world's leading organizations with the practical knowledge they need to improve their performance while better serving society. The Conference Board is a non-advocacy, not-for-profit entity holding 501(c)(3) tax-exempt status in the U.S.

[conference-board.org](http://conference-board.org)

Nielsen Holdings plc (NYSE: NLSN) is a global performance management company that provides a comprehensive understanding of what consumers Watch and Buy. Nielsen's Watch segment provides media and advertising clients with Total Audience measurement services across all devices where content — video, audio and text — is consumed. The Buy segment offers consumer packaged goods manufacturers and retailers the industry's only global view of retail performance measurement. By integrating information from its Watch and Buy segments and other data sources, Nielsen provides its clients with both world-class measurement as well as analytics that help improve performance. Nielsen, an S&P 500 company, has operations in over 100 countries that cover more than 90 percent of the world's population.

[nielsen.com](http://nielsen.com)

## AUTHORS

### **Louise Keely**

President, The Demand Institute;  
Executive Vice President, Nielsen

### **Brian Anderson**

Associate Program Director,  
The Demand Institute

### **Ben Cheng**

Senior Methodologist,  
The Demand Institute

KEY CONCLUSIONS	7
-----------------	---

VAST UNTAPPED DEMAND FOR FINANCIAL SERVICES	9
---------------------------------------------	---

<i>DISTINCT DEMAND FOR FINANCIAL SERVICES IN CHINA</i>	11
------------------------------------------------------------	----

<i>ROLES OF WEALTH AND DEMOGRAPHICS</i>	11
-----------------------------------------	----

<i>THE CHINESE MARKET WILL REQUIRE DIFFERENT APPROACHES</i>	15
-----------------------------------------------------------------	----

<i>NEW PLAYERS LEAD IN INNOVATION</i>	17
---------------------------------------	----

HOW DEMAND FOR FINANCIAL SERVICES COULD EVOLVE	19
------------------------------------------------	----

<i>RURAL CONSUMERS AND LESS AFFLUENT URBAN CONSUMERS</i>	19
--------------------------------------------------------------	----

<i>URBAN CONSUMERS WITH FINANCIAL ACCOUNTS</i>	22
------------------------------------------------	----

HOW GROWTH IN FINANCIAL SERVICES COULD ACCELERATE CONSUMPTION: TWO SCENARIOS	27
---------------------------------------------------------------------------------	----

CONCLUSION	33
------------	----

## ACKNOWLEDGMENTS

The Demand Institute is entirely accountable for the information, ideas, and projections in this report. The report does not necessarily reflect the views of the numerous people from other organizations who generously gave their time and expertise to help shape it.

The authors would like to thank the board members of The Demand Institute, Mark Leiter, Karen Kornbluh, Jonathan Spector, and Bart van Ark, for their sponsorship and intensive involvement in the work of The Demand Institute, including this report. We appreciate the input we received from them and other colleagues at The Conference Board and Nielsen.

In addition, we thank our editors, Geoff Lewis and Karen Schenkenfelder, who helped us to articulate our findings clearly and accessibly. The communications teams at The Conference Board and Nielsen have been trusted partners in the communication of our findings.

# KEY CONCLUSIONS

- **HOUSEHOLD FINANCIAL SERVICES PENETRATION IN CHINA LAGS FAR BEHIND THAT OF THE UNITED STATES**, more so than would be expected given their reported relative levels of affluence and urbanization.
- **HOUSEHOLD WEALTH IN CHINA IS HIGHLY CONCENTRATED AMONG URBAN CONSUMERS WHO HAVE FINANCIAL ACCOUNTS**. Within that group, the top 10% hold nearly two-thirds of assets.
- **THE TOP 10% ALSO USE THE BROADEST ARRAY OF SERVICES**. Compared with the bottom 10%, they are more than twice as likely to have a credit card, nearly 12 times as likely to own stock, and 68 times as likely to have real estate investments.
- **THE CHINESE HOUSEHOLD FINANCIAL SERVICES INDUSTRY IS CHANGING RAPIDLY IN RESPONSE TO RISING INCOMES AND CONSUMER DEMAND**, but not in the ways of the United States and other mature markets. For example, credit card penetration remains low, and cards are used mostly for cashless payments. Financial services companies need to understand the unique needs of Chinese consumers and create products to address them.
- **ACCESS TO FINANCIAL SERVICES INCREASES CONSUMER SPENDING**. We estimate that under the most likely scenario of financial services growth, expanded access could add \$650 billion to Chinese consumption over the next decade. In an upside scenario, consumption could rise by \$950 billion.
- **THE RISE IN DEMAND FOR FINANCIAL SERVICES WILL VARY ACROSS CONSUMER GROUPS** depending on where they live (rural vs. urban), their level of wealth and their age cohort.
- **RURAL, LESS AFFLUENT CONSUMERS WILL DRIVE THE GROWTH** of entry-level financial services such as deposit and savings accounts.
- **URBAN, AFFLUENT CONSUMERS WILL DRIVE GROWTH OF MORE COMPLEX FINANCIAL PRODUCTS, BUT ADOPTION WILL DEPEND ON AGE**. Consumers born in the 1970s are the heaviest users of financial services and are a good market for innovative products. Older cohorts—born in the 1960s and earlier—will seek to maintain wealth and avoid debt. The 1990s cohort is more willing to take on debt to enable consumption and favor online investing options.
- **LOCAL COMPANIES ARE CURRENTLY WELL POSITIONED TO CAPTURE THIS GROWTH IN FINANCIAL SERVICES DEMAND**, particularly nonfinancial players such as Tencent and Alibaba, which are innovating with online services and investment products. Multinational companies are limited in where they can play and are focusing on existing niches, such as wealth management. Regulatory reforms could change these dynamics.







# VAST UNTAPPED DEMAND FOR FINANCIAL SERVICES

The headline news about the Chinese economy recently has been largely about slowing GDP growth and the need to raise domestic consumption. The investment- and export-led growth model is running out of steam, and as we have discussed [elsewhere](#), the continued success of the Chinese economy depends on a successful transition to a growth model fueled by household consumption. Expanding access to financial services and developing products and services tailored to different types of Chinese consumers will be critical steps in this transition.

China has already come a long way. It has brought hundreds of millions of citizens out of poverty and created a thriving consumer class that has made China the second-largest consumer market in the world in aggregate terms. It is already the No. 1 auto market, with 21 million vehicles sold in 2015, compared with 17.5 million in the United States. But on a per-capita basis, consumption is a fraction of the level in mature economies, and consumption as a share of GDP is only 36%, compared with close to 70% in Europe and the United States.

Expanding access to financial services is a critical step in unlocking potential consumption. Consumers

spend more when they have access to credit to spread out the cost of large purchases over time, when they can count on investment returns to grow their nest eggs, when they can insure property and livelihoods against losses, and when they have convenient payment systems for everyday and big-ticket purchases. Our analysis, presented in [past reports](#), shows that consumers with broad access to financial services tend to spend a larger share of their incomes.<sup>1</sup>

Based on our estimates of the effect that access to financial services has on consumption, we estimate that expanded use of savings, investments, payment

<sup>1</sup> After controlling for other determinants of the savings rate at the household level.

services, credit and insurance could lead to about \$650 billion in additional consumer spending in China over the next 10 years. This is the scenario we estimate to be the most likely. In a more optimistic scenario, with faster growth in access to financial services, the amount could reach \$950 billion.<sup>2</sup> In the following pages, we describe the forces that drive demand for financial services in China and

ways those forces will change in the next 10 years, producing the added consumption we estimate is possible. This research is intended to provide a clearer understanding of the variation among Chinese consumers, even among the wealthiest urban consumers who have been financial services users—and how those differences will shape demand in coming years.

<sup>2</sup> U.S. dollars are used throughout this report unless otherwise indicated.

## A WORD ON METHODOLOGY

In this research we rely largely on data from a Nielsen 2014 survey of urban Chinese consumers who have at least one financial account.<sup>3</sup> This group represents an estimated 20% of the population. The remaining 80% consists of urban residents who do not have bank accounts or other financial services and rural residents, many of whom have deposit accounts in local cooperatives. The survey data provide a new and detailed picture of how financial services are used by different consumers across age groups and enable us to project potential for growth in financial services usage and the impact on consumption. This gives financial services providers insight into which consumer groups are leading the usage of financial services, as well as which are lagging. Our research also focuses primarily on factors driving demand for financial services, rather than supply-side factors such as the limitations of the current industry and the effects of regulation, which have been addressed elsewhere. To keep the focus on demand shifts, our analysis treated as fixed the ability of financial services companies to work within China's current regulatory and business environment and develop attractive new offerings. If foreign and domestic businesses become more or less able to respond to consumer demand, projections would adjust up or down accordingly.

<sup>3</sup> The Nielsen China Financial Track Survey, 2014, tracks the financial services usage of 17,831 consumers across 20 of China's largest cities. All participating consumers have at least one of the following financial services accounts or products: checking or saving account in any currency, credit card, consumer loan, stocks, bonds, financial products from banks, financial products from securities companies, bank or internet bao accounts, trust products, futures, mutual funds, foreign-exchange investments, real estate or insurance products (life, health, accident, liability, auto and various forms of property insurance).

## Distinct demand for financial services in China

How will Chinese financial service markets evolve in the coming decade? Factors such as levels of income and wealth, demographics and regulation will continue to shape demand, as they have in the past. Incomes will continue to rise, and more Chinese will join the consuming class, raising demand for financial services—following the pattern set in other economies. But financial services are likely to take a different path in China than in the United States or other developing economies. Companies that hope to compete in financial services in China and marketers that want to capture consumption growth should understand these differences.

Based on our analysis, we expect more than 240 million more rural Chinese consumers to open deposit accounts over the next decade. However, in our most likely scenario, adoption of many financial services will still be far below current levels of mature economies such as the United States. In some cases, such as electronic payments, China may actually leapfrog mature economies in adoption. But use of credit products might never match rates seen in the United States, even though today's younger Chinese consumers seem more willing to take on debt than were previous generations. We expect adoption of credit cards, for example, to remain relatively slow, since Chinese consumers tend to use credit cards for cashless payments, rather than for borrowing, and Chinese consumers already outstrip U.S. consumers in their use of other electronic payment systems such as WeChat and Alipay. For Chinese consumers to start using mortgage debt to finance real estate investing would require changes in regulation, which we do not consider in our most likely scenario.

Even as the Chinese financial services industry evolves and Chinese incomes rise, many of the differences between Chinese and U.S. consumption of financial services are likely to persist. Once consumers adopt a particular payment method, for example, they do not easily switch to another method unless it has clear and superior benefits. In fact, we

have seen this in mature markets, where credit and debit cards are deeply entrenched, and adoption of mobile payment methods has been slower than many expected. Regulation also has a role in perpetuating certain behaviors in financial services. For example, Chinese households tend not to borrow to purchase homes or to invest in real estate. Only about 9% of households have an outstanding mortgage, according to the World Bank. This is both the result of consumer preference (and ingrained habit) and China's restrictive mortgage regulations, which require large down payments and generally do not permit refinancing.

## Roles of wealth and demographics

The most important determinants of how Chinese consumers use financial services are wealth and demographics. In China, it is commonly assumed that the low level of penetration of financial products is a reflection of differences between urban and rural China, with poor rural China dragging down the averages. The conventional wisdom, therefore, has been that once the process of urbanization and development is complete and average incomes place China among the ranks of mature economies, the average Chinese consumer's demand for financial services will resemble that of the average American.

However, the reality is far more complex. While the urban/rural wealth gap is a factor, it does not fully explain the limited penetration of financial services in China. It overlooks the sharp variation in demand for financial services between different income groups within urban areas. Only the most affluent urban consumers use financial services at rates similar to other mature economies. In many cases, differences between groups of urban consumers are just as large as differences between urban and rural consumers. Up to now, this variation has not been well understood. It also does not take into account the sometimes striking differences in how consumers in different age groups use financial services. Using the recent Nielsen consumer survey, we are able to describe the consumer groups that

are leading the usage of financial services, as well as those that are lagging. These findings are plotted in [Figure 1](#), which shows how financial services are used today by different age groups among the estimated 20% of Chinese who live in urban areas and have financial accounts. It also shows the low penetration of financial services among the rest of the population.

Our analysis of this survey uncovered two key findings about wealth and financial services. First, financial services usage in China is highly concentrated among the most affluent consumers. Second, only the most affluent households use a broad range of services. We estimate that wealth is at least as concentrated in China as in the United States—and probably much more so. And wealthy households are concentrated in China's largest and most prosperous cities. Nonetheless, many other people in these cities are not yet heavy users of financial services, making those consumers one of the greatest sources of potential growth for financial services in the coming decade. This conclusion is consistent with other Demand Institute findings regarding the consumption growth opportunity across Chinese cities.

Household affluence, as measured in both income and assets, is highly predictive of financial services demand across a variety of products. Almost all financial services accounts are held by the most affluent 20% of households, and even within this group, usage is highly concentrated among the top 10% ([Figure 1](#)). Compared with the bottom 10% of urban households, the top 10% are more than twice as likely to have a credit card, nearly 12 times as likely to own stock, more than 50 times as likely to purchase financial products (beyond deposit accounts) from their banks, and 68 times as likely to have real estate investments. Today, only the wealthiest urban Chinese consumers—roughly the top 5%—use financial services at rates comparable to those of the average American.

Differences that we have found in financial services usage between age groups highlight additional

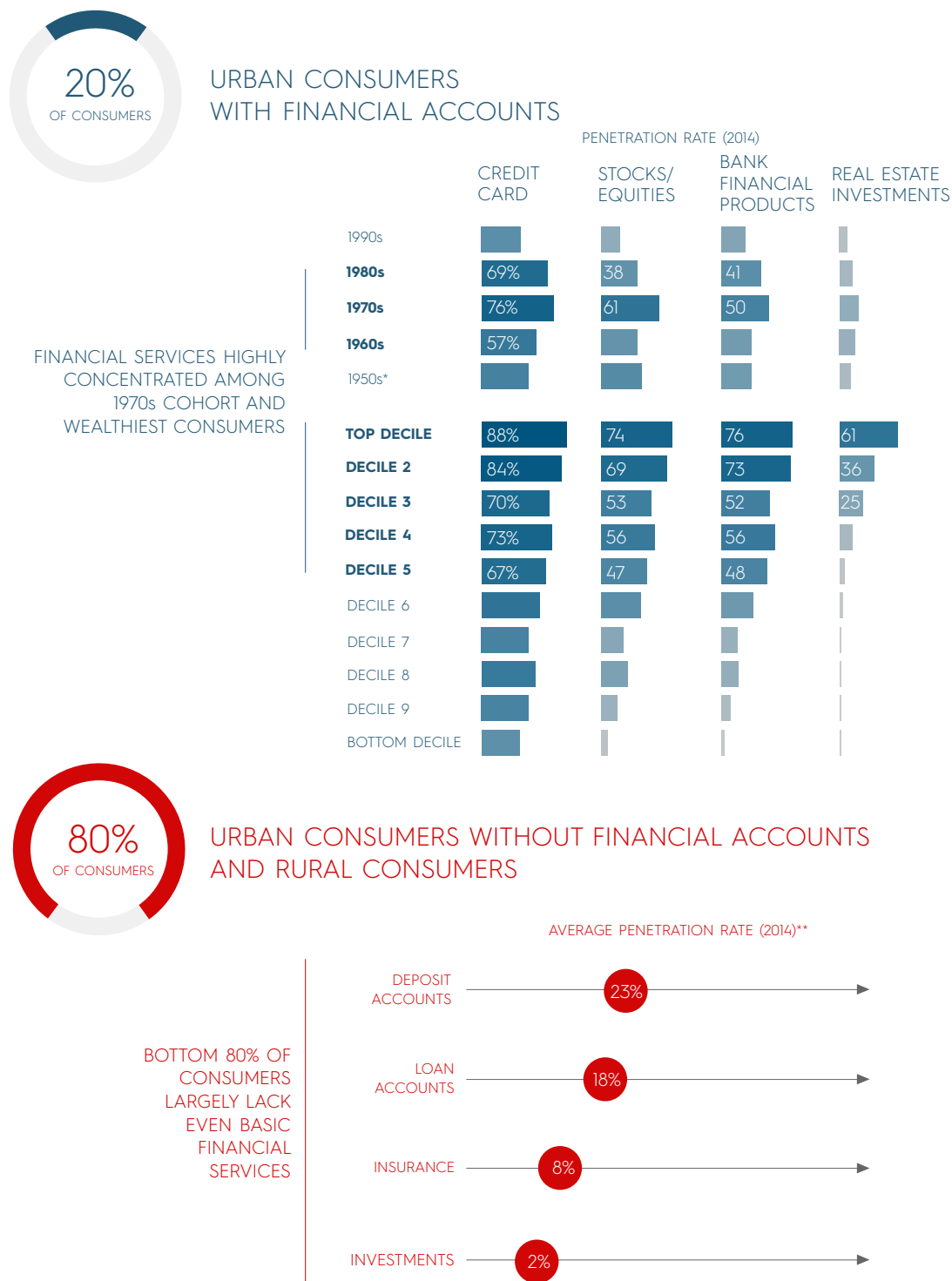
opportunities—and challenges. We break urban consumers with financial accounts into five categories based on decade of birth, starting with the 1950s (and earlier) and going to the 1990s. The relative levels of affluence by age cohort are summarized in [Figure 2](#) and show that wealth is highly concentrated among consumers born from the 1960s through 1980s, who were 25 to 54 years old when the data were collected in 2014. The differences in financial services penetration between these age groups do not merely reflect the differences in levels of wealth; they persist after controlling for different levels of affluence across cohorts.

We find that financial services usage is highest among consumers born in the 1970s, who were 35 to 44 years old in 2014. These consumers were in their prime earning years when the Chinese economy was booming, and today they maintain the highest levels of income and assets (on average). They are more likely to use credit cards, insurance and investment products than any other cohort.

The oldest cohorts of Chinese consumers—those born in the 1950s and earlier—are famous savers. They accumulated moderate levels of wealth over a lifetime of steady work and limited consumption, but rely on formal financial services less than younger cohorts do. They have always been averse to borrowing and remain so today: Penetration of credit cards and other consumer lending is lowest in this cohort. Indeed, their rates of usage of almost all investment products are well below national averages, particularly those products that are newer to market. However, members of the oldest age group who do have investment products put a larger share of their wealth in stocks and bank-marketed financial products, such as certificates of deposit, than any other cohort. In contrast, the oldest Chinese are also the least likely to buy health or property insurance to protect their wealth.<sup>4</sup> We find that consumers born in the 1960s fall somewhere between the oldest cohort and the wealthier 1970s cohort in their use of financial services.

4 Including home, auto, personal liability and compulsory third-party insurance.

FIGURE 1  
PENETRATION OF FINANCIAL ACCOUNTS BY CONSUMER GROUP (2014)



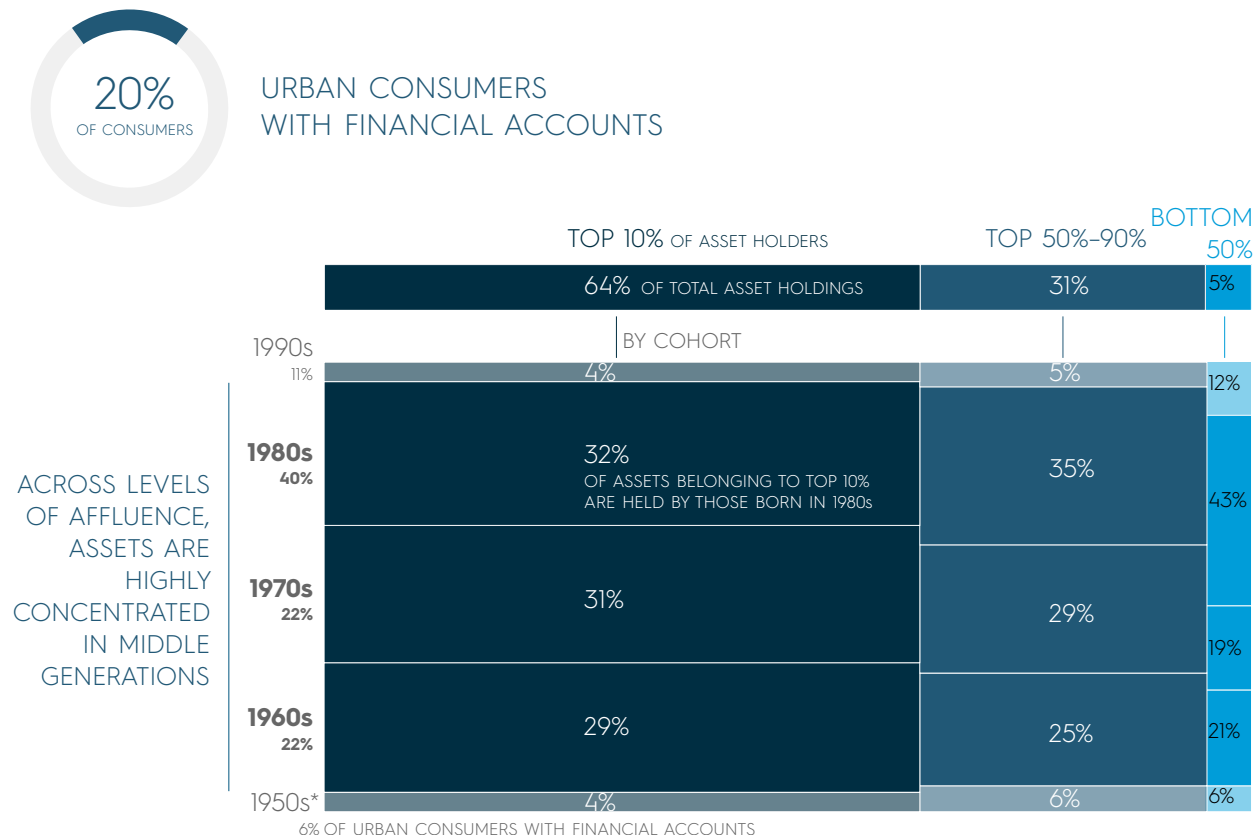
Note\*: The 1990s cohort represents those between the ages of 18 and 24, the 1980s cohort represents those between the ages of 25 and 34, the 1970s cohort represents those between the ages of 35 and 44, the 1960s cohort represents those between the ages of 45 and 54, and the 1950s represents those between the ages of 55 and 88

Note\*\*: Values represent the average penetration rate across financial services within each product type

Source: Nielsen China Financial Track Survey, 2014; The Demand Institute



FIGURE 2  
DISTRIBUTION OF ASSET HOLDINGS AMONG  
URBAN CONSUMERS WITH FINANCIAL ACCOUNTS (2014)



Note\*: The 1990s cohort represents those between the ages of 18 and 24, the 1980s cohort represents those between the ages of 25 and 34, the 1970s cohort represents those between the ages of 35 and 44, the 1960s cohort represents those between the ages of 45 and 54, and the 1950s represents those between the ages of 55 and 88

Source: Nielsen China Financial Track Survey, 2014; The Demand Institute

The youngest cohorts of Chinese consumers—those born in the 1980s and 1990s—diverge from their parents in their more freewheeling approach to consumption and have taken a different approach to financial services, too. The 1980s and 1990s cohorts have higher proportions of highly educated and skilled members of the labor force and, on average, are earning more than earlier cohorts did at their ages. However, because of their youth, these consumers have accumulated less wealth than households in older cohorts, and their use of investment products such as stocks, bonds and real estate still remains below the national average.<sup>5</sup>

Members of the younger cohorts who do use investment products gravitate toward newer options, such as *bao* products—online money market accounts offered by Alibaba and others, which pay higher interest than traditional savings accounts. More consumers born in the 1980s (56%) have *bao* accounts than hold stocks (34%) or bonds (13%). Members of the 1980s and 1990s cohorts are also more likely to have purchased some kind of insurance: 74% have personal policies (health, life or personal accident), and 60% have some form of property insurance, compared with only 53% and 45%, respectively, among the oldest cohort. Finally, the younger cohorts are more willing to take on debt—even beyond what might be expected, given their overall levels of affluence. This is a sign that the historical reservations about debt among Chinese consumers may be fading.<sup>6</sup>

Where comparative evidence is available, it appears that the variation in financial services use across age groups is greater in China than in the United States (Figure 3). For example, credit card penetration varies from a low of 41% among the 1990s cohort of Chinese consumers to a high of 76% in the 1970s cohort. In the United States, credit card penetration among consumers born in the 1990s is 77%, only six percentage points more than the rate for those born in the 1970s. However, the differences across cohorts for other forms of consumer debt (such as auto or student loans) are larger in the United States, at 19 percentage points, and more comparable to the Chinese differences (26 percentage points).

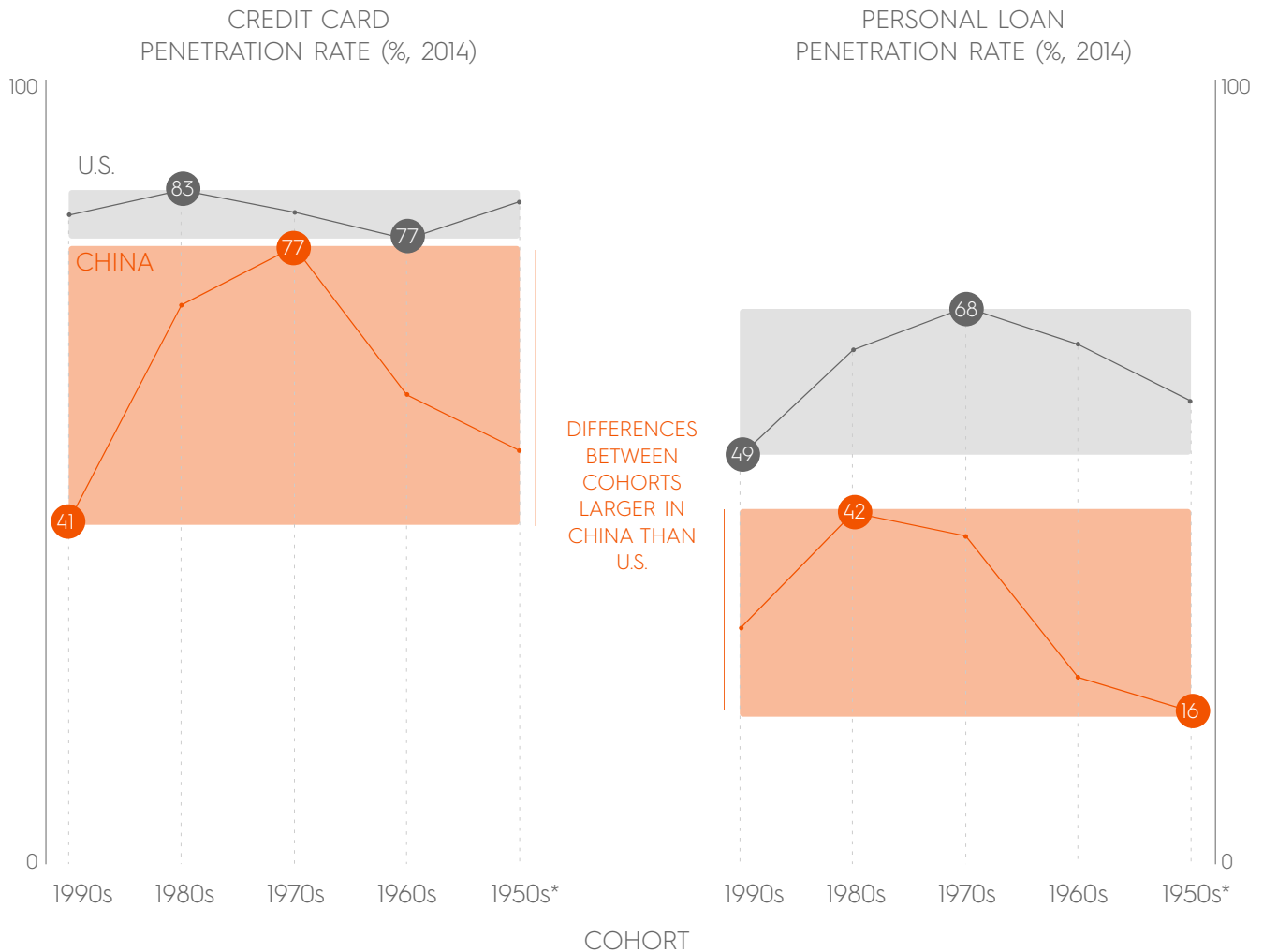
## The Chinese market will require different approaches

Based on these patterns, it is clear that China has a diverse assortment of financial services consumers and great variation in demand. For financial services companies, this requires corresponding variation in go-to-market strategies and offerings, both of which will need to be tailored to preferences and unmet needs of consumers in different wealth and age groups. For example, there may be an opportunity for sellers of credit products to tap demand among younger Chinese consumers, who are less debt-averse than older adults. In the United States, credit card issuers have long employed carefully targeted strategies to reach young adults.

5 Real estate assets in the Financial Track survey only cover those for investment purposes and exclude the primary home.

6 In aggregate, they are less likely to have consumer debt, but much of that is explained by their relative lack of affluence. After controlling for income and asset holdings, they are more likely to have debt than the oldest cohorts, particularly those born in the 1980s.

FIGURE 3  
DEBT PENETRATION AMONG URBAN CONSUMERS  
WITH FINANCIAL ACCOUNTS (2014)



Note\*: The 1990s cohort represents those between the ages of 18 and 24, the 1980s cohort represents those between the ages of 25 and 34, the 1970s cohort represents those between the ages of 35 and 44, the 1960s cohort represents those between the ages of 45 and 54, and the 1950s represents those between the ages of 55 and 88.

Source: Nielsen China Financial Track Survey, 2014; Nielsen U.S. Financial Track Survey, 2014; The Demand Institute

Some Chinese money practices, which span generations, represent outright barriers for traditional financial services companies. For example, many Chinese borrow money from family members and friends, rather than banks. According to the World Bank, only 10% of Chinese consumers borrowed any money from a financial institution in 2014, but 25% borrowed some money from a family member or friend. Friend-and-family finance is slightly more common in rural areas, where 28% borrowed from a family member or a friend, compared with only 8% who borrowed from a financial institution. Much of the informal lending in rural China is between agricultural families and based on trust rather than collateral.<sup>7</sup> These small loans are frequently repaid without interest. In India, Nobel laureate Muhammad Yunus pioneered microlending and microfinance approaches to address the needs of poor and rural populations that do not have access to the formal banking system. China's poor and rural consumers also have needs that are not met by the formal financial services sector, but innovative microfinance options have not been widely embraced.

Informal lending has several negative effects. It reduces demand for bank loans and other credit products by borrowers. And when informal lenders serve as pseudo-banks for relatives and friends, they have less money to put into formal wealth-building vehicles and may also forgo consumption. In urban areas, informal lending is often on a far larger scale than in rural areas. Individuals make loans to friends and family members to enable home purchases, which involves significant principal and more risk. Recently, some younger home buyers have turned to online peer-to-peer lending platforms, rather

than family members, to secure down payments.<sup>8</sup> However, these loans carry high interest rates and could leave borrowers with net losses if property does not appreciate sufficiently.

## New players lead in innovation

Peer-to-peer lending is only one of many examples of innovations by new players that are filling gaps in existing financial services in China. Mobile payments are another example.<sup>9</sup> In China, where most consumers do not have a credit or debit card, mobile payments are the largest form of cashless payment. The e-commerce giant Alibaba introduced AliPay to manage payments on its network of websites. Since its introduction, AliPay has evolved and does much more. In addition to accepting payments by mobile phone and computer, the system now offers credit scoring (Zhima credit) and a virtual credit card (Huabei). According to the company, it became the largest mobile-payments platform in the world in 2014, with more than 400 million registered users as of 2016. The main rival platform is WeChat, the social media and instant-messaging app owned by Tencent, China's largest internet holding company. WeChat has 800 million users and offers electronic payments from within the app, allowing participating merchants to accept payments from users. Consumers can also buy services such as insurance on WeChat and make premium payments or file claims online. Users can view the whole portfolio of cards and financial accounts that are linked to WeChat and make payments to or from those accounts. Tencent also owns the online WeBank, the first fully private bank in China.

<sup>7</sup> Calum G. Turvey and Rong Kong, "Informal Lending Amongst Friends and Relatives: Can Microcredit Compete in Rural China?" (paper submitted for CERMI, First European Research Conference on Microfinance, Brussels, June 2–4, 2009).

<sup>8</sup> "Shadow Lending for Chinese Home Down Payments Prompts Crackdown," Bloomberg News, March 15, 2016.

<sup>9</sup> In a [separate report](#), where we describe the global shift toward cashless payments, we discuss the emphasis on innovations in emerging markets that will enable the financial inclusion of 2 billion unbanked consumers around the world. In most mature markets, credit and debit cards are the primary form of cashless payments and thus dominate e-commerce transactions.





# HOW DEMAND FOR FINANCIAL SERVICES COULD EVOLVE

The evolution of demand for financial services in China will move in several directions across consumer groups, depending on consumers' age, level of wealth and place of residence (rural areas, wealthy cities or less wealthy cities), the consumer's level of wealth, and age. In [Figure 4](#) we classify consumers based on the combination of these three factors to identify which consumers will drive growth in various products. Doing so provides a system for companies to size the potential growth of financial services demand, understand who the likely consumers will be, and make appropriate investments to capture that demand. In general, consumers who already use a relatively wide variety of financial services products will drive growth of the most complex products. Another growth opportunity lies in population groups that are not using financial services yet or may only have a basic deposit account, including rural residents and less affluent urban consumers.

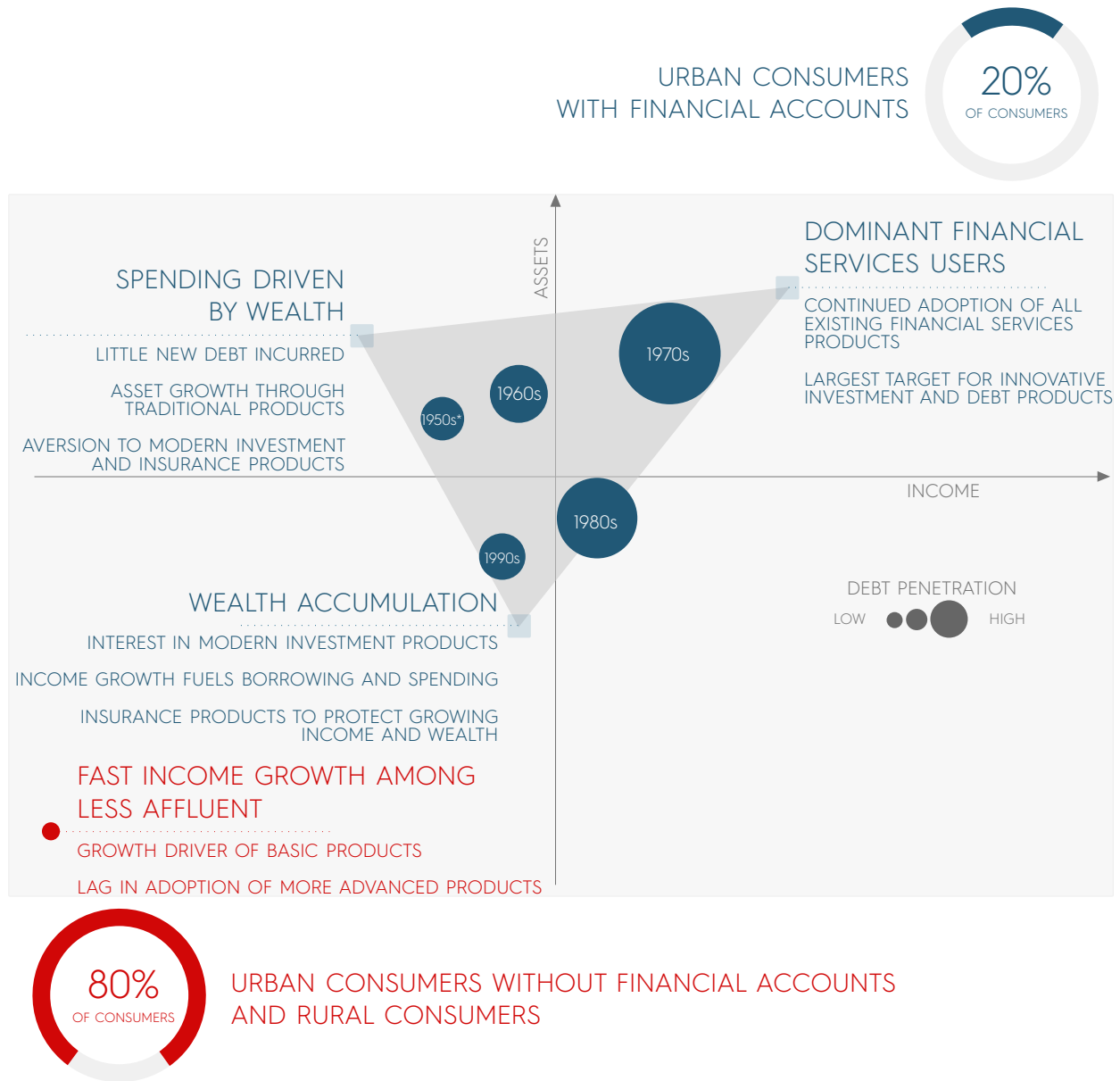
## *Rural consumers and less affluent urban consumers*

Rural consumers and less affluent urban consumers who do not have any financial services accounts today make up an estimated 80% of the Chinese population, or roughly 1.1 billion people.<sup>10</sup> More than half of this group (55%) live in rural areas. The less affluent urban consumers live mostly in economically weaker cities, as defined by the Chinese [city strata](#) classification developed by The

Demand Institute and The Conference Board's China Center. These are cities where local economies are centered on agriculture, mining and low-value-added manufacturing, and per-capita levels of income and consumption are lower than in higher-stratum cities. In these cities, fewer than one in four consumers have a checking or savings account, and only 5% have a credit card—a reflection of their low incomes. In rural areas, about 23% of consumers have basic checking or savings accounts, usually through rural cooperatives.

<sup>10</sup> Consumers without financial services accounts are defined as those without one of the select types of accounts at financial institutions included in the Nielsen Financial Track survey.

FIGURE 4  
CHINA FINANCIAL SERVICES CONSUMER LANDSCAPE



Note\*: The 1990s cohort represents those between the ages of 18 and 24, the 1980s cohort represents those between the ages of 25 and 34, the 1970s cohort represents those between the ages of 35 and 44, the 1960s cohort represents those between the ages of 45 and 54, and the 1950s represents those between the ages of 55 and 88.

Source: Nielsen China Financial Track Survey, 2014; The Demand Institute

Over the next decade, rural Chinese and poor urban residents are likely to have the fastest income growth in China. In per-capita terms, incomes in the bottom three city strata will grow between 5.8% and 6.5% annually, faster than any other strata, but from a very low base. While per-capita income growth will range from only 1.6% to 3% per year in the top three strata through 2025, consumers in the top-strata cities will still earn and spend nearly 25% more each year than consumers in the bottom strata.

Nonetheless, this group will also be a major source of demand for basic financial services, such as deposit and saving accounts. There is particular need in rural areas. The rural credit cooperatives that have provided savings and borrowing services may no longer be in a position to expand access to financial services in rural areas. Despite reforms, most of these institutions are believed to be insolvent. If they do not survive, new entrants are likely to emerge. Either way, by 2025, we project the share of rural households with checking or savings accounts could more than double, to about 50%, adding 240 million account holders. This could make up nearly all the growth in basic accounts.

We anticipate rapid adoption of cashless payment services among rural residents and less well-off urban residents in the coming decade. With rising incomes enabling more spending, these consumers will start using debit cards. Online payments for e-commerce transactions will be particularly important for consumers in rural areas, where there are limited retail services. The Demand Institute estimates that 375 million Chinese consumers will go online in the coming decade as internet access is extended, bringing the total online population to about 1.1 billion. Debit cards are already in common use among the top 20% of Chinese, so in the coming decade, adoption by rural residents and less affluent urban consumers (the other 80%) will drive most of the growth in debit cards.

This group is unlikely to be a significant driver of growth in more complex financial products or services, however. We expect credit card penetration among rural and less affluent consumers to rise from about 5% today to just under 18% by 2025, a

relatively low level of penetration compared with the top 20% of the population, but still an additional 125 million credit card users. However, we expect most of these cardholders to use credit cards for payments only; despite rising incomes, most rural residents and less wealthy urban residents will still not have the wherewithal to take on credit card debt. These consumers will likely open credit card accounts to facilitate cashless transactions and to shop online, not to increase their access to credit.

In other emerging markets, non-financial service companies from telecommunications and other industries have entered financial services to drive financial inclusion. While some poor rural Chinese could benefit from similar services, we believe it is more likely that the 80% will leapfrog to internet-based and mobile payment systems such as WeChat. We estimate that half of these consumers will still lack even a basic deposit account in 2025. The popularity of WeChat and Alipay serve to underscore the unique path China is taking. In China, the entrants into the financial services arena have largely been domestic non-financial service companies, such as Tencent and Alibaba. They are successfully navigating the particular Chinese regulatory environment, which is still very much in flux and will shape the future of financial services in China.

We expect the next decade to bring only minimal penetration growth in the purchase of investment and insurance products by this group as a whole, with all of that growth coming from the wealthiest members. These consumers are likely to gravitate toward less traditional products, such as *bao* money market accounts, that are popular among the less affluent account holders today. We project that almost one-quarter will have *bao* accounts, but only 5% will own any stocks, bonds, mutual funds or real estate investments by 2025. We expect almost none to purchase property insurance, but nearly 25% are likely to buy private health insurance. Eventually, with continued economic growth, demand for financial services among rural residents and less affluent city dwellers will approach levels of affluent urban Chinese today, but that process will take decades.

## Urban consumers with financial accounts

The remaining 20% of Chinese consumers, as depicted in [Figure 4](#), represent the largest opportunity for growth in more sophisticated financial services products.<sup>11</sup> These urban consumers, who already have at least one account with a financial services provider, will drive the majority of growth in stocks and bonds, mutual funds, consumer loans, and personal and property insurance. We classify these urban consumers by age groups, which differ in affluence and financial services usage. Consumers also have different lifestyles and financial needs at different ages, and these differences influence investing, borrowing and insurance needs.

### THE 1990s COHORT

Members of the youngest cohort of affluent urban Chinese consumers—those born in the 1990s—are unlike previous generations. These consumers differ from their parents and grandparents much more than their parents and grandparents differed from the generations that went before them. These young consumers were born and raised during China's great economic boom. Many have never experienced or even seen the level of poverty that was common when previous generations were young. Members of the 1990s cohort have higher levels of education and greater earning power, and they have had access to the internet from a very young age. Their attitudes toward a variety of topics—including financial services—differ greatly from those of older generations.

Today the 1990s cohort uses a narrower range of financial services (beyond basic deposit accounts and cashless payment products) than other members of the top 20%. Most earn reasonably high wages, but they have not been working long enough to build the same level of wealth for investment as older cohorts. Few have invested in stocks, bonds, mutual funds

or real estate. When they do invest, they prefer *bao* products. Their demand for these online products aligns with the digital lifestyle this cohort has come to represent and exemplifies their relative openness to new products, compared with older generations.

In the coming decade, however, these consumers will have greater financial needs and will seek products that allow them to build wealth. They will gradually become more active in the stock market as their wages continue to rise. In addition to investing in *bao* products, they are likely to buy more mutual-fund-type products and other investment vehicles that they can purchase directly through online channels. We project that by 2025, only 30% will own some stock and 15% will own bonds, but nearly 75% will have an internet *bao* account and 45% will have mutual funds. Given their position in the labor force, potential for rising income, and desire to grow their wealth, the 1990s group represents the best growth opportunity for retirement accounts, long-term financial planning, and offerings aimed at consumers without a lot of investment experience.

There may be a good opportunity to sell credit products to the youngest affluent urban Chinese. They are simultaneously more open to borrowing and more aspirational than older cohorts. With moderate levels of income and low levels of accumulated wealth, these consumers are likelier to use products that allow them to spend more by using credit financed by their future stream of income. We therefore project that credit card penetration will grow faster in this cohort than for any other age group. By 2025, we project, nearly 75% of the 1990s cohort will have a credit card, up from only 40% today. We also expect this cohort—whose members are starting families—to drive growth in formal housing loans, especially if rules governing mortgage down payments are relaxed. There are proposals to reduce down payment requirements for first-time home buyers, following a reduction in 2015 for buyers of second homes.

<sup>11</sup> Consumers with financial services accounts are defined as those with one of the select types of accounts at financial institutions included in the Nielsen Financial Track survey.

Finally, the youngest cohort has a larger stream of future income ahead of them to protect, and we expect them to purchase more insurance products to do so. Sales of personal insurance—both life and health—will grow more quickly among these consumers than for any other age group over the next decade. We estimate that nearly two-thirds will have private health and life insurance by 2025. However, their usage of property insurance will not expand as quickly, and they may need many years of wealth building before they catch up to middle-aged consumers in this category. Overall, they may not match middle-aged consumers in personal insurance penetration by the end of the decade because of their income and wealth, but they will surpass the oldest age group.

#### THE 1950s-AND-OLDER COHORT

China's oldest affluent urban consumers—those born in the 1950s and earlier—stand in stark contrast to the youngest. They have relatively low levels of income and relatively high levels of accumulated wealth, and their needs for financial services are very different. Many of them are already retired and were born too early to benefit fully from China's recent economic growth, which limits their current incomes. The wealth they have acquired is largely from a lifetime of hard work and a devotion to saving, as they are the most traditional and risk averse.

When members of the oldest cohort do participate in financial services, they focus most on traditional investing products. They have more complex portfolios than the 1990s cohort and are twice as likely to participate in the stock market. They also hold more bonds and real estate investments. However, they are the lightest users of newer products; only one in four invest in *bao* products, for example. They are also the least-insured age group, both for personal and property coverage. They are more likely to have a credit card than the youngest cohort, but they are the least likely to have other types of consumer loans. When you compare their levels of affluence with their debt penetration,

it is clear they are less open to debt than all other cohorts, and those who do have credit cards likely do not carry a balance.

Over the next decade, the oldest cohort will drive growth in traditional products that allow them to maintain their wealth. We project participation in stock and bond markets will expand more than it will any other cohort, and by 2025, 63% will be in stocks, compared with 43% today; 19% will own bonds, up from 13% today. Growth in real estate investing will not be as strong, as they will need liquid assets to supplement their retirement incomes.

The oldest affluent urban Chinese are the least likely to take on consumer debt. They will take out fewer consumer loans than any other age group. However, they will need a way of participating in the increasingly cashless consumer economy, so they will open more credit and debit card accounts. By 2025, we expect nearly 30% to open some type of cashless payment card, bringing usage up from 50% today to 78%. As with rural consumers, the oldest cohort will use credit cards mostly for cashless transactions and online shopping, not for borrowing. They are less likely to embrace newer forms of cashless payment methods such as mobile-phone-based services, though.

Though older Chinese consumers would seem to have a clear need for private insurance—particularly for health care—these products will remain a tough sell. Insurance is a complicated category, and growth requires consumer education. Chinese consumers born in the 1950s or earlier are not as knowledgeable about insurance, and time is running out to convince them that they need coverage. Their lack of property insurance leaves their asset holdings vulnerable, and their lack of private health insurance puts savings and other assets at risk. However, they will continue to rely on their families and a lifetime of savings, as previous generations of Chinese have done. We project that fewer than 10% of older affluent urban Chinese will add private health insurance over the next decade, and only 17% will add any form of property insurance, the lowest rate of all cohorts.



## THE 1970s COHORT

The affluent urban Chinese consumers born in the 1970s have the highest levels of wealth and assets, the most familiarity with financial services products, and the most complex portfolios. They were adults when the economy was modernizing and growth was strongest, and today they are in their peak earning years, driving consumer spending across many categories. They have already had many years to build wealth, and, like the oldest affluent urban Chinese, members of the 1970s cohort want to protect their assets. But they also remain willing to take on some debt, like the 1990s cohort, and need to continue building wealth for retirement. As a result of their diverse needs, this is the age group that uses the broadest array of financial services: 61% own stocks, 18% own bonds, 52% have mutual funds and 20% own real estate. More than half (58%) invest in internet-based *bao* money market products, exceeding the rates of the 1990s cohort. They also have more debt and insurance than any other cohort, though their lead in those categories is smaller than in investment products.

Because the 1970s cohort is already using so many services, there may be limited growth potential in this segment in the coming decade. We expect that they will add to their investments in stocks and bonds, but not as much as the 1950s-and-earlier cohort. They will add to *bao* accounts and to their levels of consumer debt, but not as much as the 1990s cohort. Finally, the 1970s cohort is likely to increase its use of insurance, but not as much as the 1990s cohort.

Still, given their wealth and enthusiasm for financial services, consumers born in the 1970s are a market worth targeting as new opportunities arise. For example, they are largest holders of real estate investments, which would make them the best market for refinancing if changes in mortgage regulation allow. They would be the most likely to make international investments. The 1970s cohort

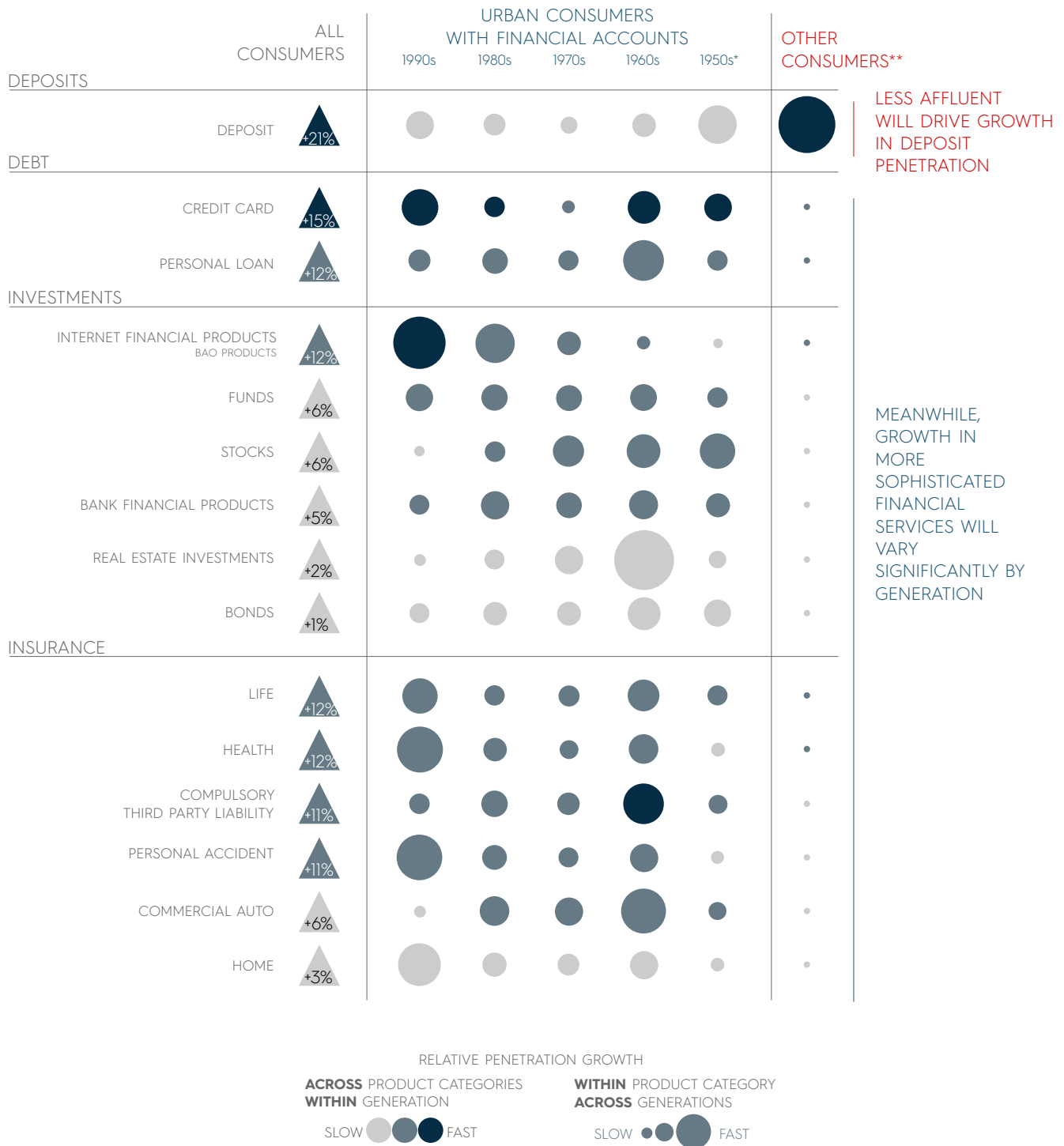
has the right combination of familiarity with the concepts, needs for the future, and financial status to be the heaviest users across financial services.

## THE 1980s AND 1960s COHORTS

The three age cohorts of wealthy Chinese consumers discussed so far—those born in the 1950s and earlier, the 1970s, and the 1990s—display extreme variation in financial services. The cohorts between these groups—consumers born in the 1960s and the 1980s—tend to have less distinct patterns of behavior. In their use of financial services, the 1960s cohort behaves somewhat like the cohort born in the 1950s and earlier but also a bit like those born in the 1970s. Consumers born early in the 1960s are more similar to those born in the 1950s, while those born later in the decade are more similar to members of the 1970s cohort. Likewise, as a target market for financial services, the 1980s cohort has demand characteristics of both the 1990s and the 1970s cohorts.

Our classification of Chinese consumer demand for financial services—based on location, affluence and age group—allows financial services companies and policy makers to better understand the vast variation in demand for financial services over the next decade. Each group will have a different approach to spending, wealth accumulation, borrowing and spending, as illustrated in [Figure 5](#), which will shape the growth of financial services markets. The evolution of financial regulation will also play an important role in determining what financial services companies can sell and how they sell. Today, local companies, even those that are not primarily or initially financial services companies, may be best positioned to expand their range of offerings. That could change if the environment for multinationals and firms with established experience in financial services improves. In the meantime, many foreign companies are choosing specific niches to play where they have expertise and are allowed to operate.

FIGURE 5  
GROWTH IN FINANCIAL SERVICES PENETRATION (2014-2025)



The 1990s cohort represents those between the ages of 18 and 24, the 1980s cohort represents those between the ages of 25 and 34, the 1970s cohort represents those between the ages of 35 and 44, the 1960s cohort represents those between the ages of 45 and 54, and the 1950s represents those between the ages of 55 and 88.

Note\*\*: Other consumers include urban consumers without financial accounts and all rural consumers

Source: Nielsen China Financial Track Survey, 2014; The Demand Institute



*BANK OF BEIJING HEADQUARTERS (BEIJING FINANCIAL STREET)*



# HOW GROWTH IN FINANCIAL SERVICES COULD ACCELERATE CONSUMPTION: TWO SCENARIOS

The potential sources of demand we have outlined can lead to an expansion of the financial services sector in China that can amplify consumption and add to economic growth. As noted, we estimate that expanded access to financial services could add \$650 billion to \$950 billion in consumption in China over the next 10 years. Here we look at how that could happen and the factors that would tilt the results to one scenario or another.

Financial services usage can free up money for consumption in several ways:

- Consumer credit expansion and rising incomes allow more consumers—particularly younger consumers—to finance spending with future income instead of savings.
- Growth of cashless payment services can expand access to modern trade channels, such as online shopping, especially among rural consumers.
- More choices of investment products and services can enable consumers to build wealth more rapidly,

creating more future spending, particularly among consumers born in the 1970s.

- Wider adoption of insurance products can reduce the need for precautionary savings and enable consumption, particularly among younger and more affluent consumers.

The \$650 billion to \$950 billion range for potential additional consumption represents the difference in two scenarios. Scenario 1, the \$650 billion scenario, is the most likely, and Scenario 2 represents a possible upper bound.



### Scenario 1: Continued growth through 2025, consistent with recent history

- We assume consumption grows by just over 5% annually through 2025, the estimate we developed in our [recent report](#) on the future of Chinese consumption. In this scenario, financial services continue to grow at the same rates as in recent history.
- Credit card penetration rises the quickest, roughly 2.5 percentage points per year, from 16% in 2014 to 44%, while other nonmortgage consumer loans grow from 33% to 44%, or just over one percentage point per year.
- Deposit and savings account penetration rises from 41% to 68% of all Chinese consumers between 2014 and 2025, or 2.4 percentage points per year.
- The \$650 billion in additional consumption enabled by greater access to financial services raises cumulative consumption to \$59.4 trillion over the next decade.

### Scenario 2: Growth in financial services toward U.S. levels and regulatory change

- In a more optimistic scenario, financial services providers meet growing consumer demand with greater innovation, which is also enabled by regulatory changes.
- Credit card penetration grows to 60% by 2025, rather than 44%, reaching the 2014 U.S. level. Relaxed regulations in the mortgage industry enable more real estate lending, allowing consumers to spend some of the built-up equity in their homes.
- Greater access to financial services raises consumption by \$950 trillion, bringing the total for the decade to \$59.7 trillion.

Six factors will influence which scenario plays out:

1. Growth in income and consumption
2. Stable consumer confidence
3. Regulatory support
4. Infrastructure
5. Consumer education and engagement
6. Innovation of new products

The first three factors are largely outside the control of financial services providers and other companies that serve consumers. Infrastructure, consumer education, and innovation are, to varying degrees, under the control of consumer-facing industries.

### GROWTH OF INCOME AND CONSUMPTION GROWTH

How quickly incomes rise to enable consumption depends on a complex set of macroeconomic forces that determine the rate of GDP growth, changes in the share of GDP that goes to household income, and the rate at which consumers choose to save or spend income. As explained in a [past report](#), we project 4.4% annual growth in household income and 5.2% annual growth in consumption over the next decade. However, companies should be monitoring these factors. Faster growth in the underlying economy will enable faster growth in financial services and a larger contribution to consumer spending.

### STABLE CONSUMER CONFIDENCE

We expect consumer confidence to remain relatively high in China and continue to have a positive influence on consumption. Ten years of Nielsen data on consumer confidence across many economies indicates that consumer confidence is bolstered in part by a stable, growing economy with a reliable, functioning regulatory environment. Uncertainty about the economy, employment insecurity and other short-term factors can undermine consumer confidence. There is also a long-term structural component to consumer confidence: Confidence is stronger when consumers have access to a broad portfolio of financial services and there is reliable regulatory oversight. These conditions allow consumers to feel that they can control their financial situations and that it is safe to plan for the long term.

Confidence is also related to the “wealth effect.” The concept of the wealth effect is that as wealth increases, consumers tend to spend more, even if the wealth is illiquid, such as in housing. In the United States, it is estimated that every \$100 of additional wealth leads to \$4 to \$7 of additional spending.<sup>12</sup>

<sup>12</sup> [Christopher D. Carroll and Xia Zhou, “Measuring Wealth Effects Using U.S. State Data,” Federal Reserve Bank of San Francisco, October 26, 2010.](#)



Therefore, increased access to financial services that allow consumers to create wealth (and increase consumers' confidence that they will have wealth in the future) can lead to significant effects on consumer spending across categories. In our projections, we assume Chinese consumers maintain their relatively high level of confidence.

#### REGULATORY SUPPORT

The Chinese government recognizes the critical role of financial services expansion in the transition to consumption-led economic growth. In March 2016, the People's Bank of China, together with the banking regulator, released an official statement encouraging banks to increase their support of consumer credit through innovation in credit products.<sup>13</sup> Their stated goal is to “vigorously promote the development of consumer finance, to better meet the need for financing in new consumption areas.” They moved to loosen regulation on some interest rates and liberalize down-payment policies for consumer loans such as auto loans. They also indicated that market forces should play a larger role in the development of new credit products. This announcement was specifically aimed at increasing spending on tourism and purchases of hybrid or “new energy” (electric) vehicles—two categories that take center stage in the most recent five-year plan. But the overall message and trend are clear: Consumer financial services need to expand to boost consumption growth.

The route of regulatory reform will be very important for multinationals seeking to enter or grow in financial services. However, the pace and shape of reform remains uncertain. A range of regulatory issues remain unresolved, including determination of whether foreign players will be permitted to move into new areas, such as credit card platforms. This makes it difficult for international financial services firms to determine the appropriate

level and scope of investment in China. For now, many foreign firms are growing by focusing on specific lines of business or consumer segments and leaving broader market development to domestic firms.

Overall, consumer borrowing regulations remain strict by global standards, particularly in the case of mortgage regulations. For home purchases, large down payments are required, and refinancing is not permitted. In part, this reflects efforts to rein in real estate speculation, particularly in the largest Chinese cities. At the same time, however, there are efforts to loosen regulations to permit reverse mortgages, which would allow older consumers to extract cash from their homes. In the complex and highly dynamic Chinese economic environment, companies must be monitoring changes in financial services regulation. Even measures that would seem unrelated to immediate consumption, such as changes in mortgage regulation, could affect demand in a wide range of consumer industries.

The upper-bound scenario assumes a relaxation of the policies that prohibit refinancing of residential mortgages. We do not believe this loosening is probable in the next several years, but it is possible. The ability to refinance a primary mortgage, or even to take out a second mortgage on a home, allows consumers to realize equity gains in their properties and liquidate them for spending. Looser mortgage regulation could also allow consumers to finance more expensive housing, enhancing the “wealth effect” as property appreciates, enabling a measurable, if modest, impact on consumer spending. China has very high rates of home ownership, and price appreciation has been robust.<sup>14</sup> This suggests that regulatory changes that affect the value of housing could lead to a larger wealth effect in China than in other countries with lower home ownership rates.

<sup>13</sup> [“China Pledges to Step Up Credit Support for Consumers,” update 1, Reuters, March 30, 2016.](#)

<sup>14</sup> Official data from China's National Bureau of Statistics indicates home ownership rates are 80%-90% throughout China. Our scenario assumes home values in China rise at the rate of disposable income—an assumption shown to be historically accurate by economists Hanming Fang, Quanlin Gu, Wei Xiong and Li-An Zhou in [“Demystifying the Chinese Housing Boom,” NBER Macro Annual 30, April 2015.](#) We also assume a wealth effect consistent with the U.S. market.

## DIGITAL AND PHYSICAL INFRASTRUCTURE

A fourth factor, infrastructure, is needed to enable a fully functioning market—providing the ancillary services and supporting systems that enable delivery and use of financial services. For example, credit rating services (or other means to assess a consumer's credit risk) are an essential feature of consumer borrowing in Western economies. These services are generally provided by private companies, but are highly regulated. In China, credit rating is not well developed; it is estimated that only about 20% of the population has a credit score.<sup>15</sup> New players are entering the market, and some new lending services are issuing loans without requiring a credit score.

Nonfinancial companies, such as e-commerce providers JD.com and Alibaba, are among the new competitors. Alibaba recently created its own credit rating service, called Zhima Credit.<sup>16</sup> The service draws on data about online customers—including purchase history and payments on its site, as well as patterns of rent and utility payments—to assess creditworthiness. In 2015, JD announced a joint venture with the U.S.-based Zest Finance to provide a similar credit-scoring service. The Chinese government also has announced its intent to build a social credit scoring system that would rely on big data sets from a variety of public and private sources, which has raised concerns about privacy and possible misuse of credit scores.<sup>17</sup> However, young Chinese consumers commonly post their credit scores on dating and social media sites, so this may not be a concern for some Chinese.

## CONSUMER EDUCATION AND ENGAGEMENT

Many financial services products are complicated and can be daunting to consumers unfamiliar with them. Most Chinese consumers grew up in an economy where investment and borrowing products were not commonplace. Therefore, suppliers of these products must also provide education and build engagement with consumers. They need to teach how these products work and explain their benefits and risks. Firms must provide tools to help consumers determine their own financial goals and decide what products are best for them to reach those goals—across the range of products to store and spend money, borrow, save and invest, and insure.

Building consumer knowledge and engagement in financial services can also benefit other industries. For instance, makers of durable goods such as cars, appliances and furniture, and firms providing big-ticket services such as vacation travel, education and health care, can support their growth and build brands and loyalty by helping consumers determine how to reach their goals for these large purchases through saving and borrowing. Retailers, particularly those with a strong online presence, also are moving into adjacent financial services. Alibaba started Alipay to address needs of shoppers across its system of websites but has since expanded into other financial services. As in other countries, makers of big-ticket consumer goods can offer financing, directly or through partnerships. Despite the enormous size of the Chinese auto market, auto finance remains relatively undeveloped, but it has been growing quickly as manufacturers mimic popular financing models from other markets.<sup>18</sup>

15 [Celia Hatton, "China 'Social Credit': Beijing Sets Up Huge System," BBC News, October 26, 2015.](#)

16 [Gabriel Wildau, "Alibaba's Finance Arm Launches Credit Scoring Service," Financial Times, January 27, 2015.](#)

17 Kenneth Dewoskin, "Credit Where Credit Is Due: China's Emerging Social Credit Scoring System," The Conference Board's China Center for Economics and Business, January 2016.

18 [Jake Spring, "Chinese Consumers Take Credit for Boom in Car Loans," Reuters, September 3, 2016.](#)

Another example of consumer companies getting into finance is the Chinese online travel company c-trip, which is offering travel insurance alongside travel bookings.

#### INNOVATION FOR THE CHINESE MARKET

In a quickly expanding market like Chinese consumer financial services, local and international firms will need to continually innovate, with new products, go-to-market approaches and business models. Today, domestic Chinese companies are in the lead, particularly in creating new business models and adapting technology for Chinese consumers. They are figuring out ways to meet latent and emerging consumer demand, even without all the infrastructure that is in place in other markets. And they have shown that they can act nimbly and quickly develop new product offerings.

Adapting products for the Chinese market is essential. For instance, unlike in other countries, savings and investments are often owned by many members of an extended family, and there

is widespread sharing of assets between parents and children. Thus, when considering how to lend to consumers and determine credit-worthiness or how to design savings and investment products, companies should consider these family ties. To always treat a household as a stand-alone unit would limit opportunity.

International financial services companies that are investing in China have deep expertise in financial products and in consumer engagement and education. Those advantages may give international firms the ability to compete effectively and capture their fair share of growth, at least within the business lines where they are able to operate. However, it remains an open question whether multinationals will be allowed to expand beyond the categories where they play now. In any case, China is a key growth opportunity for multinationals. It is the second-largest consumer market, and consumer spending will grow faster in China than in most other countries.

*KK100 (SHENZHEN FINANCIAL DISTRICT)*



# CONCLUSION

Household financial services play a fundamental but often underappreciated role in enabling consumer spending globally. China is no exception. There has been an explosion of innovation, particularly by nonfinancial companies, to serve unmet financial needs of consumer demand in China. Yet there has been little insight about how demand for financial services is growing and what forces shape that demand. This report fills in some critical missing knowledge and projects the growth in the sector overall, by type of product, and by characterizing and classifying consumer demand across the very diverse Chinese population. In this way, it enables both local and multinational companies to make better decisions about whether and how to invest in this sector.









845 Third Avenue  
New York, New York 10022  
212 339 0220

**[demandinstitute.org](http://demandinstitute.org)**