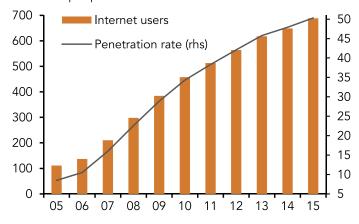


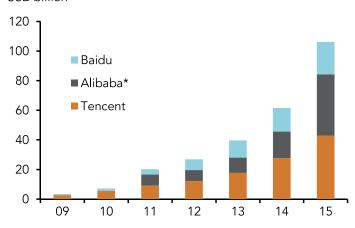
- Online payments open doors: Soaring e-retail sales support robust growth in online payments, with Alibaba and Tencent dominating. Fintech firms are increasingly tapping into social networks to expand in online payments. Against this backdrop, China has become the largest fintech market in the world.
- **E-commerce titans take on China's megabanks:** Helped by a supportive regulatory environment and building off the world's largest e-retail market, major e-commerce players including Ant Financial, Wepay and Tencent are leveraging massive customer bases and investment in new financial technology to move aggressively into banking and other financial services. Many have plans for cross-border expansion.
- **New ways to access financial services:** Along with trust funds, wealth management products and other "shadow banking" alternatives, internet finance—though still small—is changing the way businesses and consumers access financial services.
- Support for consumer and small business lending, financial inclusion: Use of big data and other new fintech applications enables internet firms to provide loans to underserved customers, including SMEs and households.
- **P2P lending—much potential, but fraud prevention key:** China's P2P lending market is the largest in the world, with total loans of an estimated \$150 billion in 2015. However, much of this growth has been built on offering unsustainably high returns; long-standing problems with fraud have prompted a regulatory clampdown.
- Rapid growth in internet insurance: Insurance is the one of the fastest-growing segments of Chinese internet finance—estimates suggest that online insurance premiums may surge from less than RMB100 billion in 2015 to RMB700 billion by 2018.
- **Heightened regulatory oversight going forward:** While the authorities have been supportive of the development of internet finance, a comprehensive regulatory framework with a clear division of supervisory responsibilities is now being put in place.

Chart 1
Chinese Internet Users and Penetration Rate millions of people



Source: CNNIC, IIF.

Chart 2
Total Assets of the Top Three Chinese Internet Companies
USD billion

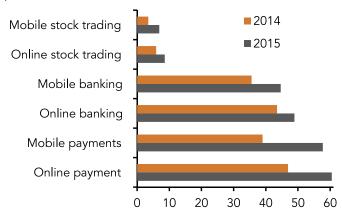


Source: Bloomberg, company data, IIF. *Data for Alibaba does not include assets of Alipay and Yu'E Bao (see Chart 13). Data do not include online fund sales (see Chart 14).

OVERVIEW

China is the largest fintech market in the world, and one of the few where the sector has attained significant scale relative to traditional banking. For example, Ant Financial (AliPay), has nearly as many customers as ICBC, China's largest bank. Assets of the three largest internet finance companies grew five-fold between 2011 and 2015 to well over \$100 billion (Chart 2). These firms have also rapidly evolved to provide a growing range of financial services—from payments to loans and distribution of financial products. More than half of Chinese internet users now use online payment systems, while online and mobile banking and stock trading applications are rapidly becoming more popular (Chart 3). Other fast-growing areas of internet-based financial services include P2P lending, crowd funding, online insurance and individual credit reporting. Mobile phones continue to be the top medium for accessing the internet, with almost 90% of users having access via a 3G/4G network. A number of interrelated technology trends, market drivers, and regulatory actions converged to produce this exponential growth in Chinese internet finance.

Utilization Rates for Online/Mobile Financial Applications percent of internet/mobile users



Source: CNNIC, IIF.

A foundational condition for this growth was the rapid expansion of internet access across China driven by smartphone penetration. As of mid-2016, China has over 720 million internet users—over half the population (Chart 1), with a higher penetration rate than Thailand (43%), India (35%), or Indonesia (20%). Moreover, with the average internet penetration rate for OECD countries close to 85%, scope for further growth remains substantial and in China, and much of this will be mobile first access. Rapid development of accompanying internet technologies (e.g., big data, cloud computing) and the growing number of highly educated college graduates (an estimated 7.65 million new graduates in 2016, up from about 1 million in 2000) have fueled this rapid move into a digital economy and underpinned the future growth of the sector.

Against this backdrop of rapid internet expansion, the period from 2011-2015 saw a confluence of regulatory and market conditions which turbocharged development: an open regulatory environment for digital finance, periodic curbs on lending by traditional banks and strong consumer demand. Perhaps the most important element was allowing two massive internet platforms—Alibaba and Tencent—to create a constellation of affiliated fintech operations, enabling them to enter the market alongside startups but with the resources to scale almost instantly. In 2015, ten Chinese regulatory agencies jointly released The Guiding Opinions on Promoting the Healthy Development of Internet Finance. This marked a shift in the regulatory approach ushering in slower growth and some re-organization of the sector; however, the presence of the two major platform players—supported by the rapidly growing consumer preference for modern financial services -has firmly established the internet finance sector in China.

Going forward, several trends will shape the future of China's digital finance development: 1) expanding the reach of consumer credit; 2) a shift in focus from volume to quality of credit extension; 3) growing consumer demand for more sophisticated and tailored financial products, including socially impactful and environmentally responsible investments; and 4) enhancement to China's system of credit reporting and assessment. Despite some turbulence as the sector transitioned from a laissez-faire environment to a more regulated one, internet/ digital finance is now an important component of the Chinese financial service sector and seems well positioned to continue to grow.

The term "internet finance" used in this note is interchangeable with three English words: digital finance, fintech and alternative lending. It is effectively a direct translation from Chinese and a term used in recently issued regulatory documents.

CHINA'S LARGEST INTERNET FINANCE FIRMS: EXPANDING THE CUSTOMER BASE, IMPROVING FINANCIAL INCLUSION

Rapid expansion of the customer base has been a key factor in the evolution of Chinese internet finance. China's major internet firms include Tencent (which owns 30% of Webank with its WeChat/Weixin) and Alibaba and its Alipay and Yu'e Bao offshoots. These firms now have millions of customers—Tencent has a user base of one billion, and Alibaba has an estimated 400 million retail customers—fast approaching the 500 million retail customer base of ICBC, China's largest bank. With China's personal investable assets topping \$15 trillion in 2015 (over 130% of GDP), and over a million high net worth individuals (vs. some 4.4 million in the U.S. and 2.5 million in Japan), rising demand for financial services will remain a source of organic growth for fintech firms.

As their customer base expands, China's internet finance firms are opening doors for individuals who currently lack access to financial services—including many in rural areas and second- and third-tier cities who have traditionally found it harder to establish and obtain credit. For example, according to CGAP, nearly 80% of Chinese adults had an account at a financial institution in 2014, compared with less than 65% in 2011. Internet finance firms are also a growing source of funding for China's small-to-medium sized enterprises (SMEs)—another traditionally underserved sector, due in part to a fragmented credit information infrastructure that makes it difficult to determine creditworthiness. Although SMEs account for 90% of all Chinese enterprises, they account for less than a third of outstanding corporate loans in China. Hence the public policy debate about new financial technologies often centers around some of the most fundamental reforms in the Chinese economy: addressing credit supply-demand imbalances, interest rate liberalization and creation of a nationwide information-sharing system for credit reporting.

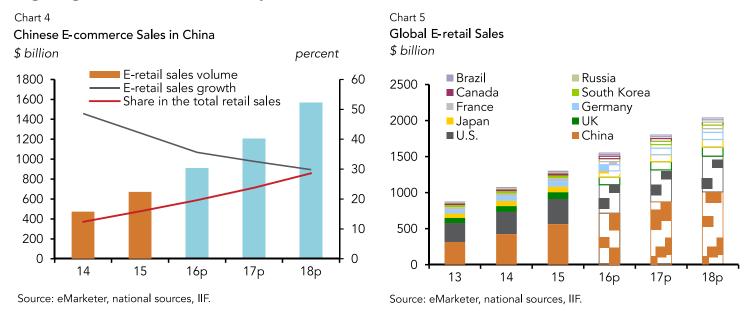
FINTECH FIRMS TAKE ON CHINA'S BANKING TITANS

As China's internet finance industry continues its rapid expansion, the role of traditional financial institutions is increasingly under pressure, reflecting long-standing structural problems as well as heightened competition (see our China Spotlight, No Respite for the Banking Sector). This is particularly true in the payments industry, where online third-party platforms are growing and gaining market share by providing a faster, more transparent, and customized payment experience that integrates payments, settlements, loans, wealth management, and other financial services. Moreover, these new services are attracting funds away from bank deposits, making market-based funding more expensive for banks. For example, the price/book ratio for Chinese banks has fallen from about 2.5x in 2010 to under 1x at present, reflecting a steep rise in the cost of equity capital. However, banks are fighting back, developing their own online and mobile products and also collaborating with internet companies. Given the long-standing advantages of traditional financial institutions in areas such as account security, information integrity, risk management, and the design of complex financial products, they are expected to continue to play an important role in the development of Chinese internet finance.

Looking ahead, while internet finance is still small relative to the size of China's overall financial system ("Big 3" internet finance company assets approaching \$125 billion and total online money market AUM of over \$550 billion, vs. traditional bank assets of close to \$30 trillion), exponential growth is expected to continue. In particular, online and mobile distribution may play a bigger role in the retail market, while traditional banks may focus more on corporate clients and institutional investors.

LARGEST E-RETAIL MARKET IN THE WORLD—A SOLID BASE FOR INTERNET FINANCE

Despite China's economic slowdown, the e-retail sector remains vibrant. In 2015, e-retail sales grew more than 40%, to \$672 billion, making China the largest e-retail market in the world—almost twice the size of the U.S. (Charts 4 and 5). While growth is expected to slow somewhat in 2016-17 as the sector continues to mature, analysts look for e-retail sales to top \$900 billion this year and \$1.2 trillion in 2017. This lucrative market has tempted some traditional financial service providers to follow e-commerce firms and internet startups into the fintech space. For example, ICBC has created its own e-commerce platform, Rong-E Gou, which also provides financial services. China Merchants Bank has invested in Didi Taxi (China's Uber). More broadly, China's giant state banks, previously skeptical of what they considered to be risky and unprofitable business lines, are now beginning to embrace fintech as a way to reach customers.



During 2015's Double Eleven Shopping Festival (an annual event launched by Alibaba in 2009), daily sales at Alibaba's Taobao and Tmall reached \$14.3 billion per day—three times that of the entire U.S. e-retail sector on Black Friday. Chinese e-retail sales are also growing rapidly as a share of the overall retail sector, and are expected to rise from just over 15% in 2015 to close to 30% by 2018. Within the e-retail sector, sales via mobile phone account for almost half of total volume—vs. less than 25% in the U.S.

ONLINE CONSUMER CREDIT: ON TAP WHEN AND WHERE PEOPLE SHOP

As internet providers build market share in consumer finance—which tends to be easier to leverage digitally than other types of financing, such as SME lending—online retailers are joining them. As a result, internet consumer credit is changing and expanding the market by providing instant credit where and when people shop, with platforms that are simple and user-friendly. For example, in early 2014 online retailer JingDong started providing personal credit (JingDong Baitao, or "white notes") of up to RMB15,000 (about \$2,300) for up to 24 months to people purchasing items on its website. In November 2014, in collaboration with Ant Financial, online retailer Tmall also started providing consumer credit to its customers, with a maximum term of 11 months. Online electronics retailer QuFenQi provides customized installment plans on products targeted at college students and young professionals.

In December 2014, Alibaba introduced Ant Check Later which is essentially a virtual credit card, providing customers with credit (up to RMB 30,000, or about \$4,500, with a term of 42 days) while shopping on Taobao

and Tmall. Ant Check Later gained over 10 million customers within 20 days of its launch and was used over 60 million times during the 2015 Double Eleven Festival. Alibaba finances this credit by securitizing Aliloan's SME loans: Alibaba sells Aliloan's SME loans to Ant Financial Group—another Alibaba subsidiary—which securitizes them. To date there have been over 200 such securitizations with an outstanding amount of RMB 40 billion (\$6.1 billion).

This type of internet consumer finance also supports financial inclusion (see above) by providing loans to migrant workers, college students, and other groups underserved by traditional financial institutions. Ant Check Later claims to have increased the purchasing power of these underserved groups by about 50%: indeed, over 60% of Ant Check Later customers had never used a credit card before.

BEYOND ONLINE BANKING: PURE INTERNET BANKS

Internet banks, which provide all services online with no bricks and mortar branches, are another fast-growing sector in China. In January 2015, Tencent established WeBank—the first Chinese internet bank. WeBank extended its first loan to a truck driver in the amount of RMB35,000 (about \$5.300). Then in August 2015, Alibaba affiliate Ant Financial established MYBank. Both were primarily established to serve SMEs. Neither provides cash services, instead granting SMEs loans via big data analysis that utilizes credit and facial detection technology.

Like other forms of internet finance, internet banking has also attracted more regulatory scrutiny in recent years; the PBoC, for example, has flagged the risk of internet banking being used for money laundering. Since internet accounts are not associated with face-to-face bank branches, the PBoC has ruled that internet accounts may only be used to buy and sell bank-issued (or co-issued) financial products and cannot be used for fund transfers or settlements. As a result, internet banks remain dependent on traditional banks for funding. Internet banks work with traditional bank partners to provide loans, sharing the interest income and keeping their balance sheets geared towards attracting new customers, enhancing operations, and managing risk.

To overcome these regulatory hurdles, some internet companies have chosen to work directly with traditional banks. For example, in November 2015, Baidu announced a collaboration with China Citic Bank, which created the jointly held Baixin Bank. Baixin differs from Webank and MYbank, as it draws directly on the support of Citic Bank's channel and platform and therefore is not a pure internet bank. More such hybrid models are likely to emerge.

Internet banks have moved quickly to build out their product offerings. WeBank, for example, has three primary business lines: in September 2015, the first consumer credit product—Weilidai—went online through the Wechat Wallet. Weilidai provides personal loans in the range of RMB500—RMB200,000 (\$75-\$30,000) with a click on a mobile phone and instant credit check. No collateral is required. However, the screening process is extensive: Weilidai analyzes big data from Wechat Wallet customers and invites only selected customers to utilize its services. By the end of 2015, Weilidai had issued invitations to over 20 million customers and extended RMB12.8 billion (\$1.95 billion) of credit to about 660,000 customers.

WeBank's second business line is APP, a wealth management platform with well over 300,000 customers, providing over RMB15 billion (\$2.25 billion) of wealth management products (WMP)—part of China's burgeoning RMB25 trillion (\$3.8 trillion) WMP industry (see our China Spotlight, No Respite for the Banking Sector). WeBank's third business line is Platform Finance, which extends loans to micro and small enterprises. In 2015, WeBank provided RMB 200 million (\$30 million) in microloans. Alibaba's MYBank, which takes on more balance sheet risk, provided some RMB 45 billion (\$7.5 billion) to 800,000 small and micro enterprises during its first eight months of operation. The use of innovative financial technologies in microfinance, with delivery via internet and mobile platforms, continues to receive strong support from the Chinese authorities; the 2016 G20 agenda under the Chinese Presidency has made digital financial inclusion a priority.

RAPID GROWTH IN ONLINE PAYMENTS SUPPORTED BY THRIVING E-RETAIL **SECTOR**

Driven by this rapid growth in e-retail, Chinese third-party online payments reached some \$2 trillion in 2015 triple their level in 2012. The number of Chinese online payment users reached nearly 360 million last year, up 18% from 2014. Although most online payment users utilize online payments primarily for shopping, money

Chinese Third Party Online Payments

■ Volume

Growth (rhs)

RMB trillion

30

25

20

15

Source: iResearch, IIF.

transfers, and paying phone bills, almost half also utilize online payments for financial planning, insurance, and cross-border money transfers.

Data provider iResearch estimates that Chinese online payments will continue to grow by over 20% per year, approaching \$4 trillion by 2019 (Chart 6). At present, the sector is highly concentrated, with Alibaba (via Alipay) and Tencent (via Tenpay and WeChat) accounting for almost 70% of online payments. Investors are paying attention: Ant Financial, which operates Alipay, closed the world's largest private fundraising round for an internet company in April 2016, raising \$4.5 billion. This gives Alipay—which is reportedly planning an IPO later this year or in 2017, a valuation of around \$60 billion.

10 5 0 12 13 14 15p 16p 17p 18p **ONLINE PAYMENTS GO CROSS-BORDER**

Mobile payments have grown even faster than other online payments—from less than \$9 billion in 2010 to over \$1.6 trillion in 2015. Some 65% of Chinese online payment transactions were made on mobile devices in 2015, up from less than 50% in 2014. By June 2015, the number of mobile payment users had topped 275 million—up over 25% from 2014.

Global retail firms outside China have been eager to access China's mobile payment systems. Wal-Mart, for example, has signed a deal with Alipay to help consumers purchase goods in China by providing mobile payment service in 25 of its stores in Shenzhen. If this goes well, Wal-Mart plans to gradually expand the service throughout mainland China. In February 2016, Apple and China Union Pay began a joint venture to bring Apple Pay's digital wallet to China. Using an iPhone 6, Unionpay credit and debit card users can use Apple Pay to make real-time payments on 6 million point-of-sale (POS) machines with the Quickpass mark, which accounts for 60% of all POS machines. Moreover, some U.S. retailers, including Macy's, Bloomingdale's, and Saks Fifth Avenue have started to accept payments from customers in China via Alipay.

SOCIAL NETWORK PLATFORMS HELP EXPAND MOBILE PAYMENTS

Both Alibaba and Tencent are utilizing social network platforms to expand online payments. As a result, mobile payments and social networks are merging to develop a more competitive mobile payments landscape. Tencent launched WeChat "red envelope" in 2014, spurring mobile payments by drawing on the Chinese tradition of sending red envelopes containing money on special occasions. To use WeChat's red envelope, users need to link their bank accounts to WeChat. The result have been astounding: between Lunar New Year's Eve on February 18, 2015 through the fifth day of the New Year, RMB 32 billion (some \$4.8 billion) was exchanged via red envelopes by 516 million people—over a third of the total population in China. By New Year's Eve 2016, over 8 billion red envelopes had been exchanged—i.e., 20 envelopes per capita and nearly eight times more than in 2015.

Alipay followed Tencent's lead by introducing Fu Card collection before New Year's Eve. By inviting friends

percent

70

60

50

40

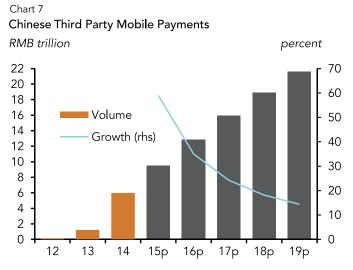
30

20

19p

to Alipay, users can collect 5 Fu cards and then split the bonus in cash envelopes on the second day of the Chinese New Year. This campaign generated 1.1 billion chain friends on Alipay this year—almost eight hundred thousand users collected all five Fu Cards and shared a bonus of RMB 215 million (over \$32 million). Although Alipay is not a social network platform, it has successfully integrated other social network platforms into the Alipay platform to promote Fu Cards.

Bolstered by the growing number of international joint ventures and social network platforms, mobile payments are expected to grow more than 20% per year on average, reaching almost \$2 trillion by 2017 (Chart 7). Although the mobile payment market is even more concentrated than the online payment market—Alipay alone accounts for more than 80% of payment volumes—future joint ventures may create new entrants.



Source: iResearch, IIF.

P2P LENDING: MUCH POTENTIAL, BUT FRAUD PREVENTION IS KEY

Compared to online and mobile third party payments, the volume of peer-to-peer (P2P) internet lending is still very small, but has been growing rapidly. Unlike online and mobile payment markets, internet lending lacks large incumbent firms, allowing innovative start-ups to enter the market. Like other forms of internet finance, P2P internet lending reaches underserved populations—another support for financial inclusion in China.

The number of P2P platforms rose from just 50 in 2011 to over 2500 in 2015, with some 2 million borrowers and 6 million investors currently using these platforms (Charts 8 and 9). In 2015, over \$150 billion of P2P loans was originated—quadruple the level in 2014. The Chinese P2P market has thus become the largest in the world, four to five times larger than those of the U.S. and Europe combined (some \$30-40 billion).

To tap into the potential of P2P lending, traditional banks, insurance companies, securities firms, and mutual funds have been rushing to set up P2P platforms. Minsheng Bank, China Development Bank, China Merchant Bank, China Ping An, GF Securities, and Harvest Fund Management are among the new entrants. Collaboration between P2P platforms and other financial institutions, such as micro-loan and third-party guarantee companies and banks, is increasingly common. For instance, Lufax, a P2P platform backed by insurance giant Ping An, has collaborated with over 500 financial firms, attracting some 3.5 million active users across 300 cities. In January 2016, Lufax raised \$1.2 billion from investors, putting the company's value at some \$18.5 billion. However, lackluster market conditions in recent months have pushed a planned IPO into 2017.

With such rapid growth, development in China's P2P industry has tended to be boom-bust. For example, the stock market rally of H1 2015 resulted in a surge in growth in P2P loans, as many P2P platforms bankrolled retail stock market investors who did not qualify for margin loans. This ultimately prompted regulatory intervention, with the China Securities Regulatory Commission requiring many these platforms to stop stock collateral lending. Similarly, P2P property lending rose over 150% to some \$18 billion in 2015, with the P2P composite interest rate falling from over 20% in early 2014 to a still-high 12% by the end of 2015 (Chart 10). This easier-to-obtain financing has been one driver of the sharp increase in home prices in many major cities over the past few years (Chart 11). Here too the authorities have cracked down—as of March 2016, unsecured P2P loans for down payments are now illegal.

Moreover, many start-up companies fail; nearly 1,000 online lenders went out of business in the year through May 2016, and analysts suggest that only a small percentage of P2P firms in business in 2015 will remain in

Chart 8 Chinese P2P Loan Volume, Outstanding and Platforms RMB billion number Transaction volume Loans outstanding Number of platforms (rhs)

Chart 9 Chinese P2P Investors and Borrowers thousands Number of investors ■ Number of borrowers

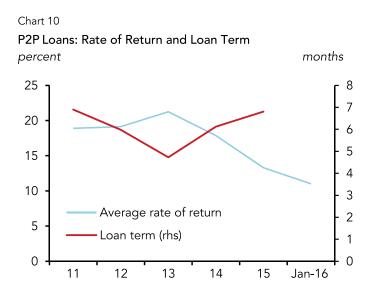
Source: Wangdaizhijia, IIF.

Source: Wangdaizhijia, IIF.

business by the end of 2016. A wave of Ponzi-type schemes, and associated social unrest and protests, have prompted local police investigations and heightened regulatory oversight, with an emphasis on fraud detection and prevention. All told, some 30% of Chinese P2P lenders are estimated to have been involved in legal disputes over fraud, frozen withdrawals or halted operations entirely. The high-profile case of P2P lender Ezubao, which shut down in February 2016 following the collapse of a Ponzi scheme resulting in \$7.6 billion in losses to over 900,000 investors, has contributed to heightened concerns about the P2P platforms. Hence despite its popularity and potential for reaching underserved customers, the breakneck pace of growth in P2P lending seen in 2015 is likely to continue to slow as regulatory oversight is stepped up.

As the regulatory environment becomes more stringent, the P2P industry shakeout is likely to continue. Many leading P2P firms are already embarking on a long-term strategy of transitioning into broader platforms of financial products. Lufax, for example, is branching out its P2P business into a marketplace of financial services,

Chart 11



Source: wdzj.com, yingcanzixun.com, IIF.

Shanghai Shenzhen Beijing

Property Prices: Shanghai, Shenzhen and Beijing

yuan per square meter (000s), residential and commercial

Source: BIS, IIF.

while discontinuing its current product line. Similarly, CreditEase, which owns the NYSE-listed YiRenDai, is thought to be downsizing its P2P business and moving resources elsewhere.

CHINESE CROWDFUNDING—DYNAMIC, BUT STILL IN ITS INFANCY

While modern-day crowdfunding has been around for nearly two decades, the concept really only took off in China in 2011 with the first crowdfunding site, DemoHour. However, growth has been rapid: there are now more than 300 crowdfunding sites in China—ten times the number in 2013. Equity crowdfunding, where monetary contributions are exchanged for shares of a company, accounts for 40% of all crowdfunding activities (Chart

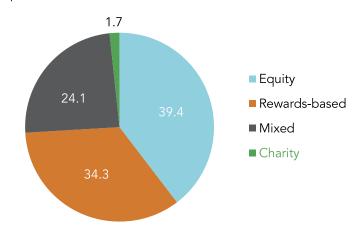
12). Volumes are expected to rise from about RMB3 billion (\$460 million) in 2015 to over RMB 35 billion (\$5.3 billion) by 2019 (Chart 13; the World Bank projects that the Chinese crowdfunding market should grow to \$50 billion by 2025. A new development in the Chinese market, "reward" or sale-oriented crowdfunding, where contributions are exchanged for current or future goods or services, accounts for over a third of all crowdfunding activity. Since 2014 the 13 largest platforms, including JingDong, Zhongchou and Taobao (Chart 14), have financed more than 9000 projects. Some of the most popular crowdfunding projects have financed the entertainment industry and typically include motion pictures, software development and innovations in the industry.

Like P2P platforms, crowdfunding platforms also face heightened regulatory oversight and have had legal challenges. In August 2015, the China Securities Regulatory Commission (CSRC) released a Notice on

Chart 12

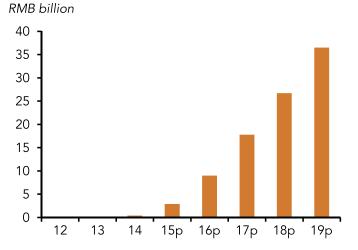
Types of Crowdfunding Platforms

percent



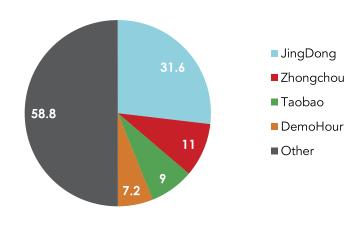
Source: Rong360, IIF.

Chart 13
Chinese Equity Crowdfunding Volumes



Source: iResearch, IIF.

Chart 14
Chinese Crowdfunding: Market Share
percent



Source: eMarketer, national sources, IIF.

Conducting Special Inspections of Institutions Engaging in Equity Financing via the Internet, stating that without permission from the state authority, no company or individual may conduct equity crowdfunding. While public consultations are underway, the CSRC has not yet released or approved rules for crowdfunding platforms. However, a Chinese court recently recognized the legality of crowdfunding contracts in a case between a crowdfunding company, Renrentou, and Nuomiduo, a catering company for which Renrentou raised funds.

NEW WAYS TO FINANCE THE SME SECTOR

Chinese internet companies have been increasingly active in SME lending, in particular by lending to SMEs with which they have existing business relationships, such as the merchants on their web platforms. The existing transaction records that internet companies have with these SMEs help establish credit scores, reducing the cost of providing such loans. For example, Aliloan (Alibaba's small loans unit) and other internet lenders including Jin'xiao Loan, provide supply chain finance to vendors and companies using their shopping websites. These loans are becoming increasingly popular. In 2012, only about 300,000-400,000 sellers on Alibaba's websites had access to Aliloans, but by 2014 more than 3 million sellers had access.

Traditional Chinese banks have actively sought to integrate supply chain finance and internet lending as well, e.g. platforms developed by Agricultural Bank of China (ABC), known as E-Ag Steward, and Ping An Bank's Orange E Network. These platforms provide cloud-based procurement, sales, and inventory services for SMEs, gathering data on real business conditions. The accuracy of the data is then checked by comparing it with data from upstream and downstream firms. By also using public data, such as taxes and customs declarations, such platforms have effectively built an online credit assessment system and are able to use it to make better decisions in SME lending (where misrepresentation in financial statements is widespread).

ABC has also introduced Xinxun Tong, which uses local vendors in places where there are no bank branches, including many parts of rural China. These vendors are provided with devices that have mobile banking capabilities. Farmers can go to these vendors to deposit, withdraw, transfer money, make payments, and get subsidies in their town without traveling to a bank branch. To date, ABC has established 11,300 such vendors, who collectively conducted more than four million transactions just in the first four months of 2015. ABC has also launched a digital loan service, targeting micro and small enterprises in the Shandong and Guangdong provinces. Other banks have also been active in this space: as of September 2015, the total number of mobile app users of China Construction Bank (CCB) reached 170 million.

Amid ongoing efforts to build a national credit reporting system, new financial technologies are also making it easier to assess creditworthiness, both for SMEs and for households. Larger firms already have their own credit reporting systems (for example, Alibaba has Sesame Credit and Tencent has its Credit Bureau), based on online transaction records and social network data. There are also companies specializing in credit analytics, such as WeCash and IceKredit, which use proprietary data technology and advanced algorithms to build more inclusive systems. While it will certainly be challenging to integrate existing systems into one that encompasses all segments of society, a national credit reporting system would draw on all aspects of fintech.

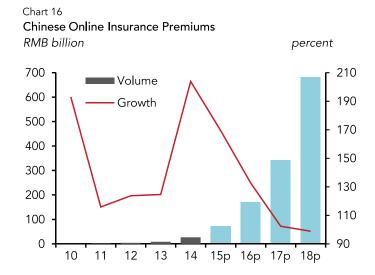
NEW MODELS FOR INTERNET FUNDS

The first Chinese internet money market fund, Shumi Cash Bao, was established in December 2003, but industry growth really began to take off in 2013 with the launch of Alibaba's Yu'E Bao (literally, "leftover treasure") funds. Supported by user-friendly functionality and higher returns than banks are able to offer, Alibaba's Yu'E Bao alone now has over 260 million customers (close to 20% of China's population) and over RMB620 billion (close to \$95 billion) in assets under management (Chart 15). Key to the success of Yu'E Bao has been the use of the Alipay platform (see page 4) to channel money market funds to Alipay users—an example of the synergies among the different types of Chinese internet-based financial services. Yu'e Bao has also become a model for other internet companies and banks, many of which have also established internet Bao funds. For example, Baidu launched its Baifa fund in December 2013, and Tencent has launched a mobile asset-management product platform, Li Cai Tong. Tencent's platform—which leverages its base of the 650 million users of its social networking website WeChat—allows users to buy money market fund shares on WeChat through Tenpay. All told, there are currently close to 150 "internet bao" funds with total assets of some RMB3.7 trillion(\$550 billion)--quadruple their level in 2013. Most of the assets of China's money market funds (including internet money market funds) are invested in interbank deposits.

Chart 15
Yu' E Bao Assets and Number of Customers
assets in billions of RMB millions customers



Source: Tianhong Asset Management, IIF.



Source: iResearch, IIF.

Gross online fund sales amounted to some RMB7.8 trillion (\$1.2 trillion) in 2015—almost four times their level in 2013 (Chart 16). However, growth has slowed over the past year and a half as the very attractive returns that had initially been offered on online funds began to decline. For example, Yu'E Bao's 7-day annualized yield has fallen from 4.7% at the beginning of 2015 to around 2% at present (Chart 17). While still higher than what traditional banks can offer (currently around 1% for 3-month deposits, 1.75% for 1-year deposits), the premium over benchmark rates has narrowed, cutting into growth. For example, Yue Bao assets amounted to over RMB 700 billion (\$110 billion) in Q1 2015, but fell to RMB620 billion (\$95 billion) by the end of 2015. Nonetheless, Chinese internet fund sales are expected to thrive over the next few years, growing at an estimated rate of 20-25% per year, to reach more than \$15 trillion by 2018 (Chart 16).

As internet Bao (money market) funds encounter difficulties, different business models are emerging, many focusing on cross-selling. For example, PinganFang (a subsidiary of Ping An Group) introduced Haofangbao, an internet Bao fund that targets customers who plan to purchase a house on the PinganFang platform within 180 days. If customers manage to buy a house on the platform within 180 days they receive a subsidy for their down payment in addition to the usual fund return. Similarly, Ctripbao, another internet Bao fund, targets customers planning to travel within a certain period of time (180, 90 or 30 days). Such customers receive gift cards in addition to fund returns if they book travel via Ctripbao's platform within the time allotted.

EXPLOSIVE GROWTH IN INTERNET INSURANCE

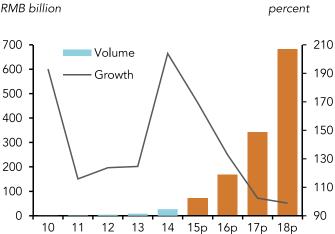
One of the fastest-growing areas of internet finance is internet insurance—due in part to widespread acceptance of electronic signatures. Sixty-one out of 68 Chinese life insurance companies have begun providing internet life insurance services. Of total insurance premiums sold, online shares increased to more than 9% in 2015, compared with only 0.5% in 2013. Online life insurance premiums in 2015 amounted to RMB146 billion (\$22 billion)—nearly 10% of the overall RMB1.6 trillion (\$250 billion) life insurance market. Here too innovative new products are being developed—more than 80% of online insurance premiums sold were hybrid products combining life insurance and wealth management products. Similarly, 70% of China's 71 major property insurance companies are now providing online property insurance services. Online property insurance premiums in 2015 amounted to RMB 77 billion (some \$12 billion)—nearly 10% of the RMB 800 billion (\$125 billion) market for property insurance premiums. More than 90% of this was auto insurance. Although most internet property insurance sales have been via the websites of the insurance companies, about

Chart 17 Yu' E Bao Return vs. Benchmark Rates percent



Source: www.fund.fund123.cn, Bloomberg, IIF.

Chart 18
Chinese Online Insurance Premiums
RMB billion



Source: iResearch, IIF.

18% of sales came from third-party websites such as Alibaba ormobile apps such as APP, WAP and WeChat. The online insurance market is expected to grow at triple-digit levels over the next few years, reaching RMB700 billion (\$110 billion) by 2018 (Chart 18).

THE RISE OF INTERNET BROKERAGE

To take advantage of increasing internet and mobile phone usage, a number of Chinese brokers have sought pilot licenses for an online securities business from the Securities Association of China. Five such licenses were granted in August 2015, including to CITIC Securities, Guotai Junan Securities and Ping An Securities. This number continues to grow: currently there are 24 brokerage companies that have obtained licenses for online

securities business. Perhaps to a greater extent than in other areas of internet finance, cooperation between pure internet firms and brokerage houses has helped developed the market. For instance, Tencent and Sinolink Securities jointly introduced Yongjin Bao in 2014, through which investors can open security accounts online or on their mobile devices and can invest or withdraw their money easily. Internet firms are also working with brokerage firms to utilize big data analysis and cloud computing to provide tailored portfolio advice to customers.

THE EVOLVING REGULATORY LANDSCAPE: BALANCING INNOVATION AND RISK

A key factor in the growth of China's internet finance firms has been a very supportive policy and regulatory environment, in contrast to the much more heavily regulated banking industry. For example, during 2013-2014, the government adopted a broadly laissez-faire approach to encourage innovation and allow space for experimentation. However, this approach not only allowed dominant internet platforms Tencent and Alibaba to enter the market unencumbered, but thousands of questionable actors as well, resulting in many well-publicized cases of fraud. The P2P sector was particularly hard hit (see above), with lack of prudence and insufficient regulatory oversight cited as contributing factors.

Heightened regulatory oversight of internet finance is beginning taking shape. In March 2015, Premier Li called for an "Internet Plus" strategy, which aims to better integrate the internet with traditional industries to create new businesses and growth, mitigate potential risks, and enhance financial inclusion. Signaling a change in thinking among China's top regulators and the end of the "experiment" period, in July 2015 the People's Bank of China (PBoC) along with nine government ministries issued a set of guidelines (Guiding Opinions on Promoting the Healthy Development of Internet Finance) to create a regulatory framework for Chinese internet finance, strengthen the rule of law and promote financial inclusion. This marks a new stage in China's fintech policy characterized by a higher technology threshold, further market segmentation, product differentiation and optimization, and pursuit of consumer satisfaction,

The Guidelines were followed in December 2015 with <u>draft P2P lending regulations</u> and <u>draft regulations on non-bank providers of online payment services</u>. Together with the existing Law of the People's Republic of China on Commercial Banks and the Securities Law of the People's Republic of China—both of which have been updated and amended in recent years as internet finance has developed—these guidelines and regulations will form the legal basis for the fintech industry going forward.

The recent scandals associated with the internet finance industry—including a 70% increase in fraud cases in 2015 and the collapse of China's largest P2P lender, \$7.6 billion Ezubao in February 2016—have prompted much greater scrutiny. A PBoC-led "special internet finance crackdown" launched in April 2016 has featured a clampdown on new business registrations and heightened investigation of developments in the P2P and crowdfunding industries, forbidding P2P companies from fundraising for their own projects or guaranteeing loans. New regulations are also targeting maturity mismatches in P2P lending and so-called "fund pools" in which investor funds are not matched with specific loans but combined into a single pool.

Nonetheless, the Chinese government remains supportive of the development of internet finance. Many key elements, including third-party payments, big data, and development of cloud computing capacity, are in line with the "financial infrastructure" section of the Third Plenum reform blueprint. The challenge for regulators has been to keep pace with a rapidly changing industry and strike a balance between encouraging innovation and mitigating risk. In April 2014, the PBoC's Financial Stability Report outlined five major principles for the oversight of internet finance. Specifically, any internet finance regulation should 1) serve the real economy; 2) act in line with China's monetary policy goals, helping to ensure financial stability; 3) protect the legitimate interests and rights of consumers; 4) help maintain fairness and order in the market; and 5) impose self-discipline. While the report acknowledges the many benefits of internet finance, particularly in the area of financial inclusion, it also warns about the risk of fraud in P2P lending and crowdfunding.

Plans for the internet finance industry were developed further in 2015. The above-mentioned Guidelines—hailed as China's "fintech constitution"— formally clarify the assignment of regulatory and supervisory responsibilities according to types of internet finance activities. Accordingly, the PBoC will supervise online payments; the China Banking Regulatory Commission will supervise P2P lending, internet trusts, and internet consumer finance; the Securities Regulatory Commission will supervise crowdfunding and online fund sales; and the China Insurance Regulatory Commission will supervise internet insurance. In accordance with the guidance, the various Chinese regulators proceeded to rule-making in the second half of 2015.

In addition to heightened regulatory oversight, the Chinese internet finance industry has developed some self-regulatory initiatives. The Chinese Internet Finance Alliance, founded in November 2013, has issued the "Beijing Declaration on Internet Finance," including principles of self-regulation, to promote healthy market development. Baidu has been monitoring internet finance websites to detect problems and provide early warnings (e.g., of potential fraud) to users.

More recently, in January 2016, the Internet Finance Association, a semi-governmental institution under the guidance of the PBoC, was granted a license setting out a mandate to enhance coordination between the public and private sectors in regard to internet finance. The Internet Finance Association began operations on March 25, 2016 in Shanghai following the National People's Congress and the Chinese People's Political Consultative Conference, and now has over 400 members.

A POWERFUL FORCE IN THE CHINESE ECONOMY

Despite the slowdown in the Chinese economy and periodic market turbulence, the internet finance industry—including online payments, loans, and financial product distribution—has continued to see robust growth, attracting customers away from traditional banks but also reaching customers who were previously underserved by traditional financial service providers, particularly SMEs. Although the Chinese internet finance industry is still quite small compared with the traditional financial services industry (Chinese banks alone have some \$26 trillion in assets, and the rapidly growing Chinese insurance industry adds a further \$1.85 trillion), there is substantial potential for growth. Moreover, rapid evolution and innovation in Chinese internet finance will continue to alter the landscape for the financial services sector.

In addition to enhancing financial inclusion, development of internet finance could help China shift toward an economic growth model based more on productivity, innovation, and consumption, in line with the government's goal of rebalancing. It could also help address fundamental structural shortcomings in the financial system such as disproportionate direction of capital by dominant state-owned banks towards state-owned enterprises at the expense of households and private firms. More broadly, the development of Chinese internet finance may also help reduce information asymmetries and make resource allocation more efficient. Development of Internet finance could also prompt further changes in banks' business models and spur financial liberalization (see our China Spotlight, No Respite for the Banking Sector).



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