EUROPEAN RESEARCH STUDIES JOURNAL
VOLUME XXIV, SPECIAL ISSUE 1, 2021

pp. 1110-1120

Big Tech Influence on China Financial Sector
Submitted 10/12/20, 1st revision 14/01/21, 2nd revision 23/02/21, accepted 23/03/21

Tomasz Dziawgo

Abstract:

Purpose: The objective of the paper is to present Chinese Big Tech companies and present their increasing activity on domestic financial sector.
Design/Methodology/Approach: For the purpose of the paper, the following methods have been applied, critical analysis of literature and research papers as well as descriptive method and comparative analysis of presented data.
Findings: Based on the above-mentioned methodology methods, Big Tech can be determined that Chinese Big Tech companies have significant potential to impact not only Chinese domestic financial sector, but also the global financial sector. What is more, COVID-19 fastened several trends undergoing on the banking sector (such as digital transformation) that Chinese financial sector is relying upon.
Practical Implications: During COVID-19, Chinese Big Tech companies outperformed key players in Chinese domestic financial sector in key financial metrics such as market capitalization, revenue increase, net income.
Originality/value: Chinese Big Tech companies have stronger foothold on the domestic financial markets rather than their counterparts in USA (Amazon, Apple, Google).

Keywords: Big Tech, Chinese banking sector, digital.

JEL classification: E42, G21, O14.

Paper Type: Research study.

1Banking Institute, SGH Warsaw School of Economics, ORCID: 0000-0001-5910-8997, e-mail: tdziaw@sgh.waw.pl
1. Introduction

In Q3 2020, Ant Financial – large Chinese financial technology company – was expected to have the largest Initial Public Offering (IPO) up to date (Horowitz and Pham, 2020). In dual-listing share sale on both Hong Kong and Shanghai stock exchanges Ant Financial was on track to raise 34.5 billion USD, beating IPO of Saudi Aramco in 2019 (raised 29.4 billion USD) and Alibaba in 2014 (raised 25 billion USD) (Pham, 2020). What is more, retail demand for shares was at 3 trillion USD only in China. However, due to several regulatory issues in Mainland China, IPO was suspended and Alibaba company that owns one third stake of shares in Ant Financial, lost 60 billion USD in market capitalization (Wilhelm, 2020).

In spite of IPO suspension, it was a clear indication that financial technology companies and Big Tech companies such as Alibaba, are attracting significant attention not only in USA and Western European countries, but also in China – the second biggest economy worldwide in terms of GDP (London, 2018). Key players in Chinese economy are companies operating in financial sector (banking, insurance) and technology sector (PWC, 2020). Due to advanced digitization process, rapidly changing customer expectations and cultural shift, banks with significant financial resources are often partnering with innovative Fin Tech companies to address above-mentioned trends in the financial sector. Because Big Tech companies have both high degree of innovation and financial resources, they could impact the financial sector without partnering with other players.

2. Research Methodology and Hypothesis

The research paper aims to test the following hypothesis:

➢ Chinese Big Tech companies have potential to impact both domestic and global financial sector.

For the purpose of the paper, the following methods have been applied; critical analysis of literature and research papers as well as descriptive method and comparative analysis of presented data. Content analysis was aimed at presenting Chinese financial sector specifics, underlining the banking sector. Then Big Tech was defined and the largest Chinese Big Tech companies were presented. Furthermore, COVID-19 impact on both Chinese banking sector and Chinese Big Tech companies was analyzed. Lastly, conclusions regarding hypothesis were drawn.

3. Chinese Financial Sector Specifics

Chinese financial sector is significantly dependant on banking. Total Chinese financial sector assets at the end of 2019 were worth 45.1 trillion USD and 90% of them (41 trillion USD) are banking assets (China Banking News, 2020). Considering
top 100 largest banks worldwide, China is leading the ranking having four largest banks in the world (Industrial and Commercial Bank of China, China Construction Bank, Agricultural Bank of China and Bank of China respectively). China also has the most banks in the ranking (19 institutions in top 100 largest banks ranking) and the highest value of assets owned by banks ranked in top 100 largest banks ranking (over 25 trillion USD) (S&P Global Market Intelligence, 2020). Chinese banking sector, being the largest worldwide, is very important not only to Chinese economy but to the global financial sector (Cerutti and Zhou, 2018). What is more, Chinese banks in terms of asset value belong to largest companies worldwide. Top 10 global banks ranked by asset value are presented in Table 1.

Table 1. Top 10 banks globally rated by asset value (April 2020).

| Position | Bank name                        | Country         | Asset value (bilion USD) |
|----------|----------------------------------|-----------------|--------------------------|
| 1        | Industrial and Commercial Bank of China | China           | 4,324.27                 |
| 2        | China Construction Bank          | China           | 3,653.11                 |
| 3        | Agricultural Bank of China       | China           | 3,572.98                 |
| 4        | Bank of China                    | China           | 3,270.15                 |
| 5        | Mitsubishi UFJ Financial Group   | Japan           | 2,892.97                 |
| 6        | HSBC Holdings                    | United Kingdom  | 2,715.15                 |
| 7        | JPMorgan Chase & Co              | USA             | 2,687.38                 |
| 8        | Bank of America Corp.            | USA             | 2,434.08                 |
| 9        | BNP Paribas SA                   | France          | 2,429.26                 |
| 10       | Credit Agricole Group            | France          | 2,256.72                 |

Source: The world’s 100 largest banks, 2020, S&P Global Market Intelligence, 2020.

Large size of banks is not the only specific in Chinese financial sector. The other key specifics in the Chinese banking sector are as follows:

1) Assets concentration - asset value of top four banks constitute for 40% of total assets of the Chinese banking sector (Garcia-Herrero, 2016).
2) Destination of credits – primary destination of credits are large infratstructural projects, such as JingJinJi, which could cause boom on domestic real estate market (Myers, 2018; Chen and Woo, 2018).
3) Asset management companies (AMC) activity – AMC purchase non-performing loans (NPL) from leading banks in order to improve their financial situation (McMahon, 2018).

The key role of the banking sector is particularly important in China, since its capital market does not have 100 year history as in the USA and Western European countries. In spite of the significant size of both capital and bond markets (both are top 3 worldwide in total market capitalization) they have been developing only for 30-40 years (HSBC, 2017; Hu, Grace, Pan, and Wang, 2018). Banking sector in
China has its own challenges, such as significance of shadow banking, size of non-performing loans, addressing private banking environment (Dziawgo, 2018). One of they key challenges is competition from large technology companies (Big Tech) (Bahree, 2020).

4. Big Tech Significance and Activity on Chinese Financial Market

Big Tech companies are tech giants dominating their markets due to several advantages, such as: wide access to customer data, deep market understanding and ability to deliver brand new products and services (Capgemini, 2020). Big Tech companies usually benefit from client data analysis, which is being used to get a foothold to other business lines, including financial services. Key difference between Big Tech and Fin Tech is that Fin Tech company specializes in financial services (Ślązak, 2018). Big Tech company on the other hand focuses on other services, mainly information technology – because of that financial services is not the key area of focus for Big Tech. Among largest Big Tech companies, revenue from financial services accounts into 11% of overall revenues (BIS, 2019).

However, Big Tech companies are particularly interested in getting a foothold into financial services market due to several reasons such as: revenue diversification, access to additional customer data, complementing core services and increasing customer loyalty (BIS, 2019). In order to make significant presence in banking sector, Big Tech companies need to have large client base, significant digital exposure and high level of trust from customers. They seem to be the most attractive to younger customers, due to high preference of conducting basic operations online, such as payments and deposits (Burns and Toit, 2017). Offering of these companies differs based on economic development of the country and on domestic regulations. In advanced economies, Big Tech companies rather complement services offered by banks and financial market players, when in emerging markets offering is significantly wider (asset management, insurance, lending etc.) (Financial Stability Board, 2019). Although Big Tech companies operate on the global scale, their centers are located mainly in Asia-Pacific and North America regions (Figure 1).

**Figure 1. Global distribution of Big Tech companies (2019).**

*Source: Big Tech in finance: Opportunities and risks, BIS, 2019.*
Key global Big Tech companies are based in United States and are referred to as „GAFA” (Google, Amazon, Facebook, Apple), “FAANG” (Facebook, Amazon, Apple, Netflix, Google) or “GAFAM” (Google, Amazon, Facebook, Apple, Microsoft) (Wigglesworth, 2020). However, out of top 20 companies considered as “Worldwide Internet Leaders” ranked by market value, 11 are based in United States and 9 are based in China (Table 2), thus indicating significant importance of Big Tech Chinese companies globally (Kleiner Perkins, 2018).

Table 2. Largest Big Tech companies in China ranked by valuation (2015-2020).

| Company name                        | Market value (Dec 2015) | Market value (Dec 2020) |
|-------------------------------------|-------------------------|-------------------------|
| Tencent                             | 185B USD                | 666B USD                |
| Alibaba                             | 202B USD                | 638B USD                |
| Ant Financial (affiliate company of Alibaba) | 45B USD                | 313B USD                |
| Meituan-Dianping                    | No data                 | 211B USD                |
| JD.com                              | 38B USD                 | 130B USD                |
| Xiaomi                              | 45B USD                 | 100B USD                |
| Baidu                               | 56.5B USD               | 65.5B USD               |
| Didi Chuxing                        | No data                 | ~56B USD                |
| Toutiao                             | ~0.5B USD               | ~30B USD                |

Source: Kleiner Perkins, MacroTrends.com, Gizmochina, BBC News, CompaniesMarketCap.com

The most impactful Big Tech players in the Chinese financial market are Alibaba and Tencent. In 2004, Alibaba launched online and mobile payment platform named Alipay which is currently the biggest payment platform worldwide with 1.2 billion users (Xinhuanet, 2019; Capgemini, 2020). Moreover Ant Financial (affiliate company of Alibaba) has 600 billion USD in AUM (Assets Under Management) and its’ market fund Yu’e Bao became one of the largest money market fund globally with 170 billion USD in AUM. Due to the fact that Yu’e Bao provides an easy access to wide area of users with low investment threshold of 1 RMB (0.15 USD), it has 300 million users globally (Jing, 2017).

Tencent on the other hand launched WeChat Pay in 2013. Only 5 years later in 2018, it had been processing 1 billion transactions on a daily basis and had 40% share in Chinese mobile payment sector worth 40 trillion USD (Capgemini, 2020). In 2014, Tencent launched Licaitong – online wealth management platform (Jing, 2014). In 2019 it was managing 130 billion USD of client assets (Liao, 2020). Both companies also have their own credit scoring systems. Due to the fact that millions of Chinese individual consumers and small businesses do not have credit history, Credit Reference Center of the People’s Bank of China is not able to fully set credit
measurements (Dollar and Wang, 2018). Alibaba introduced Sesame Credit scoring system in 2015 after analyzing payment history of 400 million clients. System considers five criteria: credit history, behaviour preferences, agreement honouring, personal information as well as social network. After that it gives score between 350 and 950 and assigns one of five categories (excellent, good, fair, poor and bad). Similarly to Alibaba, Tencent introduced its’ own Tencent Credit Score with similar categories and score range (Horowitz, 2017). Details of both credit scoring systems are presented in Table 3.

| Table 3. Credit Scoring systems introduced by Alibaba and Tencent (2018) |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Introduced by                   | Sesame Credit Score             | Tencent Credit Score            |
| Criteria                        | Credit history (35%)            | Wealth                          | Consumption behaviour           |
|                                 | Behavior preferences (25%)      | Honouring agreement             | Honouring agreement             |
|                                 | Honouring agreement (20%)       | Security                        | Social connections              |
|                                 | Personal information (15%)      |                                |                                |
|                                 | Social network (5%)             |                                |                                |
| Scoring range and categories    | Excellent 700-950               | 300-850 with unknown categories |
|                                 | Good 650-700                    |                                |                                |
|                                 | Fair 600-650                    |                                |                                |
|                                 | Poor 550-600                    |                                |                                |
|                                 | Bad 350-550                     |                                |                                |

Source: Dollar and Wang (2018), What’s happening with China’s fintech industry?

What is most notable however, is the fact that both Alibaba and Tencent have their own online banks. Among total 19 private banks in China, both MyBank (Alibaba-backed) and WeBank (Tencent-backed) are the largest private banks ones, accounting for 50% of total sector of Chinese private banks in terms of total assets owned. Table X presents comparison between MyBank, WeBank and other 17 Chinese private banks combined. Only in 2019, WeBank served 200 million individual clients and MyBank served 21 million small and medium businesses.

Obtaining such client base is possible due to the fact that these banks operate only online and are targeting unbanked individuals and businesses with limited or no credit history. Considering favourable trends in banking industry (with special emphasis on digitization) and the fact that 40% of Chinese consumers don’t have personal loan, it may be concluded that private banks in China are expected to grow even more. MyBank and WeBank have been dominating the market, therefore Tencent and Alibaba are expected to have significantly larger role in the Chinese financial sector as a whole (Lan, 2020).

Lastly, China has been increasing it is focus on technology itself. According to the latest outlined five-year plan, China aspires to be self-sufficient global technology superpower by 2035. With Wang Zhigang stating that: “...(China) is placing the plans on science, technology and innovation before all other sectors…”, it can be
concluded that significance of Big Tech companies will increase even more (McGregor, 2020).

**Table 4. Comparison between WeBank, MyBank and other 17 private banks combined (2019)**

| Bank                        | WeBank    | MyBank    | Other 17 private banks combined |
|-----------------------------|-----------|-----------|---------------------------------|
| Total assets owned          | 44 billion USD | 21 billion USD | 65 billion USD                  |
| Total revenue               | 2.25 billion USD | 1 billion USD | Not available                   |
| Total net income            | 0.6 billion USD  | 0.2 billion USD | 0.45 billion USD               |

*Source: Lan Q., WeBank and a Changing Chinese Banking Sector, EqualOcean, 2020.*

5. **COVID-19 Impact on Chinese Financial Sector and Big Tech**

After COVID-19 outbreak, the banking sector underwent considerable changes, such as decrease in cash usage (60% drop in cash ATM withdrawals), e-commerce adoption (25% of clients with first online purchase during pandemic), online banking increased importance (75% clients with regular online transactions), contactless usage and technology adoption (Kekevi, 2020).

However, these trends were undergoing prior COVID-19 as well. Non-cash transactions number and total value were on the rise of 10% CAGR between 2013-2017, online banking services usage varied between 40% and 60% and complex services such as robo-advisory were on the rise as well (Dziawgo, 2018; Capgemini, 2019; Deloitte, 2020). It may be concluded that COVID-19 fastened trends that have been already undergoing in banking industry. What is more, banks need to consider numerous domestic and global regulations, while performing operations (Koleśnik and Zaleska, 2018). Failing to comply to regulations could negatively impact reputation of a bank (Niedziółka, 2018).

To further emphasize COVID-19 impact in both Chinese banking sector and Chinese Big Tech sector, the analysis of key players in both areas was conducted. Top 4 Chinese national banks and top 4 Chinese Big Tech companies by the ranks of market capitalization were considered, which are: Industrial and Commercial Bank of China, China Construction Bank, Agricultural Bank of China, and Bank of China, as well as: Alibaba, Tencent, Meituan-Dianping and JD.com. The analysis aims at showing performance of Big Tech and banking sector in market capitalization, revenue, and net income. The outcome of the analysis was shown in Figures 2-4. Top 4 banks’ market capitalization decreased from 920 billion USD to 910 billion USD, which accounts for slight 2% drop. On the other hand, top 4 Big Tech companies’ market capitalization increased by 45% from 970 billion USD to 1.5 trillion USD. Top 4 banks’ revenue increased from 148 billion USD to 154 billion USD, which accounts for slight 4% rise. What is more, top 4 Big Tech companies’ revenue increased by 30% from 53 billion USD to 68 billion USD.
**Figure 2.** Market capitalization comparison between banks and Big Tech companies in Q2 2019 and Q2 2020 (USD trillion)

![Market capitalization comparison diagram]

*Source:* Own elaboration based on Macrotrends, www.macrotrends.com.

**Figure 3.** Revenue comparison between banks and Big Tech companies in Q2 2019 and Q2 2020 (USD billion)

![Revenue comparison diagram]

*Source:* Own elaboration based on Macrotrends, www.macrotrends.com.

**Figure 4.** Net income comparison between Chinese banks and Chinese Big Tech companies in Q2 2019 and Q2 2020 (USD billion).

![Net income comparison diagram]

*Source:* Own elaboration based on Macrotrends, www.macrotrends.com.
Top 4 banks’ net income stayed the same at ~40 billion USD in both Q2 2019 and Q2 2020. Top 4 Big Tech companies net income increased by 65% from 11 billion USD to 18 billion USD.

6. Future Outcome and Conclusions

The research paper aims to test the following hypothesis:

➢ Chinese Big Tech companies have potential to impact both domestic and global financial sector.

After using the following methods critical analysis of literature and research papers, descriptive method and comparative analysis of presented data, the hypothesis can be proven positively. Largest Chinese Big Tech companies, with special emphasis on Alibaba and Tencent, have potential to impact not only Chinese, but also global financial sector. Similarly as GAFA, they have significant financial resources, high market valuation and great financial performance during COVID-19 period. Large client base depicts that Chinese Big Tech companies have considerable customer trust, which will be key when offering financial services. Payments and deposits seem to be primary financial services offering by any Big Tech company due to the fact that they can be conducted fully digitally. This provides opportunity for Big Tech companies to offer services at lower cost and at better convenience.

What is the most notable however is the proven track record on the Chinese banking sector by Chinese Big Tech companies. Establishment and dominant position of online private banks and own credit scoring systems depict that the largest Chinese Big Tech companies have higher exposure and experience in financial services than GAFA. Also, favourable trends in the banking industry could benefit Big Tech companies in the long term, such as: lower cash usage, increasing number of digital transactions or lesser withdrawals from ATM machines. What is more, although Chinese banks did relatively well during COVID-19 period, Chinese Big Tech companies outperformed them in market capitalization, revenue and net income (considering percentage increase). Considering all the above mentioned, it can be concluded that Chinese Big Tech companies have potential to impact both domestic and global financial sector.

References:

Alipay reports 1.2 bln users, Xinhuanet. 2019.
Assets of Financial Sector Institutions in China Total $45.12 Trillion at end of 2019. China Banking News. 2020.
Bahree, M. 2020. What’s behind China’s Big Tech crackdown and what does it mean? AlJazeera.
BBC News. 2020. Jack Ma's Ant Group set for record $34bn market debut.
Big Tech in finance – Market developments and potential stability implications. 2019. Financial Stability Board.

BIS. 2019. Big Tech in finance: Opportunities and risks.

Burns, M., du Toit G. 2017. Evolving the Customer Experience in Banking. Bain & Company.

Capgemini. 2019. World Payments Report 2019.

Capgemini. 2020. World Fintech Report 2020.

Cerutti, E., Zhou, H. 2018. The Chinese banking system: much more than a domestic giant. VoxEU.

Chen, Y., Woo, R. 2018. China house prices to rise faster in 2018 in boost for cooling Economy. Reuters pool.

Deloitte. 2020. Covid-19 boosts digitalization of retail banking.

Dollar, D., Wang, W. 2018. What’s happening with China’s fintech industry? Brookings.

Dziawgo, T. 2018. Wealth management market in China. Opportunities and challenges. Copernican Journal of Finance and Accounting, 7(4), 47-57.

Fortune 500. 2020. Fortune.

Garcia-Herrero, A. 2016. Chinese banks: the way forward. Bruegel.

Gizmochina. 2020. Xiaomi Market Value crosses the $100 Billion mark, achieving its 2018 IPO Goal.

Horowitz, J., Pham, S. 2020. Ant Group raises $34 billion in world’s largest IPO. CNN Business.

Horowitz, J. 2017. China’s Tencent is quietly testing a “social credit score” based on people’s online behavior. Quartz.

HSBC. 2017. China capital markets: be prepared to seize the investment opportunities.

Hu, X., Grace, P.J., Wang, J. 2018. Chinese Capital Market: An Empirical Overview. The National Bureau of Economic Research, 19-30.

Jing, Y. 2017. Alibaba’s Yuebao becomes world’s largest money market fund. CGTN.

Jing, Y. 2014. Tencent launches new Licaitong product offering high returns, Global Times.

Kekevi, S. 2020. How the COVID-19 crisis is impacting branch banking. Accenture.

Kleiner Perkins. 2018. Internet trends 2018.

Koleśnik, J., Zaleska, M. 2018. Nadzór makroostrożnościowy (Macro-prudential supervision). In: Świat Bankowości (World of Banking). Difin.

Lan, Q. 2020. We Bank and a Changing Chinese Banking Sector. Equal Ocean.

Liao, R. 2020. The race to be China’s top fintech platform: Ant vs Tencent, Tech Crunch.

London, E. 2018. GDP Ranking of the world’s largest economies, 2019. CEOWorld Magazine.

McMahon, D. 2018. The big four AMCs: Changing Priorities – and Rankings – in a new era. Macro Polo.

McMahon, D. 2018. China’s Local AMCs: Making a mark – but bending the rules. Macro Polo.

McGregor, G. 2020. China’s new five-year plan has an ambitious aim: to become a self-sufficient, global tech superpower. Fortune.

Myers, J. 2016. You knew China’s cities were growing. But the real numbers are stunning. World Economic Forum.

Niedziółka, P. 2018. Pojęcie i rodzaje ryzyka bankowego (Concept and types of risk for banks). In: Świat Bankowości (World of Banking). Difin.

Pham, S. 2020. How Jack Ma built China’s money supermarket into a $200 billion company. CNN Business.
PWC. 2020. Global Top 100 companies by market capitalization. Update to 30 June 2020.

Ślązak, E. 2018. FinTech i jego znaczenie dla usług finansowych, Bank Spółdzielczy no 4/590.

S&P Global Market Intelligence. 2020. The world's 100 largest banks.

Wigglesworth, R. 2020. How Big Tech got even bigger in the Covid-19 era. Financial Times.

Wilhelm, A. 2020. Pulled Ant Group IPO costs Alibaba nearly $60B in market cap. TechCrunch.

www.macrotrends.com

www.companiesmarketcap.com