

*This thesis is submitted in partial fulfillment of the requirements for the degree of*

**Master of Arts, East Asian Studies  
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# Chinese Fintech Companies And Their “Going Out” Strategies

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## TABLE OF CONTENTS

|                                                                                 |               |
|---------------------------------------------------------------------------------|---------------|
| <b>Chapter One – The Rise</b>                                                   | <b>4</b>      |
| <i>Introduction</i>                                                             | 4             |
| <i>China’s Fintech Rise</i>                                                     | 5             |
| <i>Alipay— From E-Commerce Payment Platform to Global Fintech Leader</i>        | 7             |
| <i>WeChat Pay—From Social Media App to One-Stop Digital Lifestyle Ecosystem</i> | 15            |
| <i>Unseating the Alibaba-Tencent Duopoly?</i>                                   |               |
| <br><b>Chapter Two – Going Out 2.0</b>                                          | <br><b>26</b> |
| <i>Strategies for Chinese fintech globalization</i>                             | 26            |
| <i>Beijing’s “Digital Silk Road”: State backing or impediment?</i>              | 34            |
| <br><b>Chapter Three – Challenges Ahead</b>                                     | <br><b>37</b> |
| <i>Domestic regulation—Beijing’s tech rectification campaign</i>                | 37            |
| <i>E-CNY—Competition or control?</i>                                            | 40            |
| <i>Global regulation—The anti-China backlash</i>                                | 50            |
| <i>Global competition— "Local champions" and new entrants</i>                   | 54            |
| <br><b>Conclusion</b>                                                           | <br><b>58</b> |
| <b>Bibliography</b>                                                             | <b>60</b>     |

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China's rise since the 1990s has been impressive to say the least. Since my early childhood in the 1990s, I have been fortunate enough to have witnessed some of this on periodical visits to see relatives in China. On that note, I wish to convey my deepest thanks to my family, scattered across Australia, China, and the U.S., for gifting me with the Chinese language and the ability to witness first-hand China's truly extraordinary economic and technological rise. It is my hope the Chinese fintech experiences and lessons outlined in this dissertation can serve as guides to others, rather than triggers for blind skepticism, rejection, and conflict.

## CHAPTER ONE: THE RISE

### *i. Introduction*

In the late 1990s, Chinese President Jiang Zemin launched the strategy of Chinese companies' "Going Out" (走出去) into foreign markets as part of China's "Opening-up and Reform" (改革开放). These companies were largely state-owned enterprises (SOEs) and generally concentrated in the primary industry. Fast forward three decades and China is arguably undergoing a new form of "Going Out," albeit of a different nature. This current phase is largely a bottom-up and private-led movement, driven by China's most rapidly growing and innovative companies—its private technology companies.

The first section of the dissertation contextualizes and outlines the ascendance of China's fintech companies, primarily Ant Group (蚂蚁集团) and Tencent (腾讯), since their incipience in the early 2000s. This section draws on methodologies associated with business history and economics and refers to sources such as oral interviews with company executives and key personnel; secondary literature (e.g. case-studies and reports); Chinese media coverage; and key macro-economic and financial data. The unparalleled pace of China's digital financialization over the last decade is captured in official and unofficial economic data provided by various Chinese government bureaus and agencies (e.g. National Bureau of Statistics, the People's Bank of China, State Administration of Foreign Exchange, etc.) as well as other financial databases (e.g. *Wind.com*, *CEIC*, *Bloomberg*, etc.), and various economic papers and datasets.

Section two analyzes Chinese fintech companies' motivations and strategies for globalization, relying predominantly on methodologies associated with international finance and political economy. This section broadly fleshes out China's current and prospective influence on financial digitization across the globe. It examines how Chinese fintech companies have tried to replicate or remodel their fintech products and services in overseas markets largely through strategic partnerships and foreign investments. Again, the thesis draws on interviews with firms' key decision-makers and Chinese media coverage, as well as company official statements and press releases.

Section three assesses opportunities and challenges confronted by China's fintech companies both domestically and abroad. More recently, Chinese fintech platforms are facing increasing regulatory pushback vis-à-vis their highly lucrative online micro-lending and credit services. Furthermore, they are undergoing potential competition in payments from the prospective roll-out of the People's Bank of China's (PBoC) central bank digital currency (CBDC), e-CNY (数字人民币), as part of the "Digital Currency/Electronic Payments" (DC/EP) (数字货币/电子支付) plan. This section will also take into account the opportunities and challenges in Chinese fintech companies' global expansion efforts in different regions within the context of greater global skepticism toward China's technological expansion. This last section outlines regional differences and regulatory headwind risks that Chinese fintech companies will confront as they struggle to iterate homegrown successes in foreign markets. An analysis of the Chinese government's

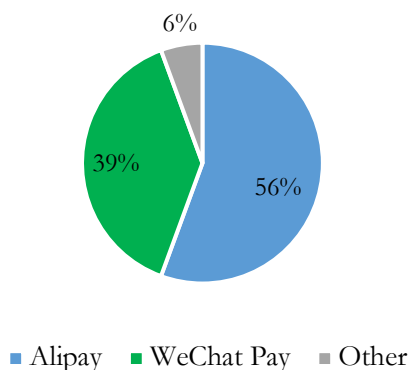
broader national strategies (e.g. “Belt and Road Initiative “一带一路; “Digital Silk Road”数字丝绸之路; and DC/EP’s eCNY 数字人民币) will also be included. This section incorporates methodologies used in international relations and political economy, and offers India as a case-study of the regulatory and geopolitical headwind risks that China’s fintech companies face as they attempt to “go out.”

## ii. China’s Fintech Rise

*“Seven or eight years ago, I proposed the idea of internet finance when I was also in Shanghai. We have always been emphasizing the three core components of internet finance. First, internet finance has to be based on an abundance of data and information. Second, there is a need for a risk control technique backed by big data. Third, internet finance must have a credit system backed by big data.”—Alibaba Founder Jack Ma speaking at The Bund Summit in Shanghai on October 24, 2020.<sup>1</sup>*

Alibaba’s Ant Group and Tencent dominate China’s colossal digital finance market. Together their two platforms—Ant Group’s Alipay and Tencent’s WeChat Pay—account for well over 90% of the third-party mobile payment market, which in 2019 was worth well over RMB 340TN (over US\$50TN). Their dramatic ascendance is a story of two private Chinese companies leapfrogging the traditional card-based banking system to service a new fast-growing market of small and micro businesses (SMBs) and consumers in search of more convenient payment methods and increased access to credit and wealth management. The phenomenal rise of mobile payments—both in terms of volume and penetration—is a direct result of these two firms’ world-leading innovations and considerable subsidies.<sup>2</sup>

Share of China's mobile payments market, %, June 2020



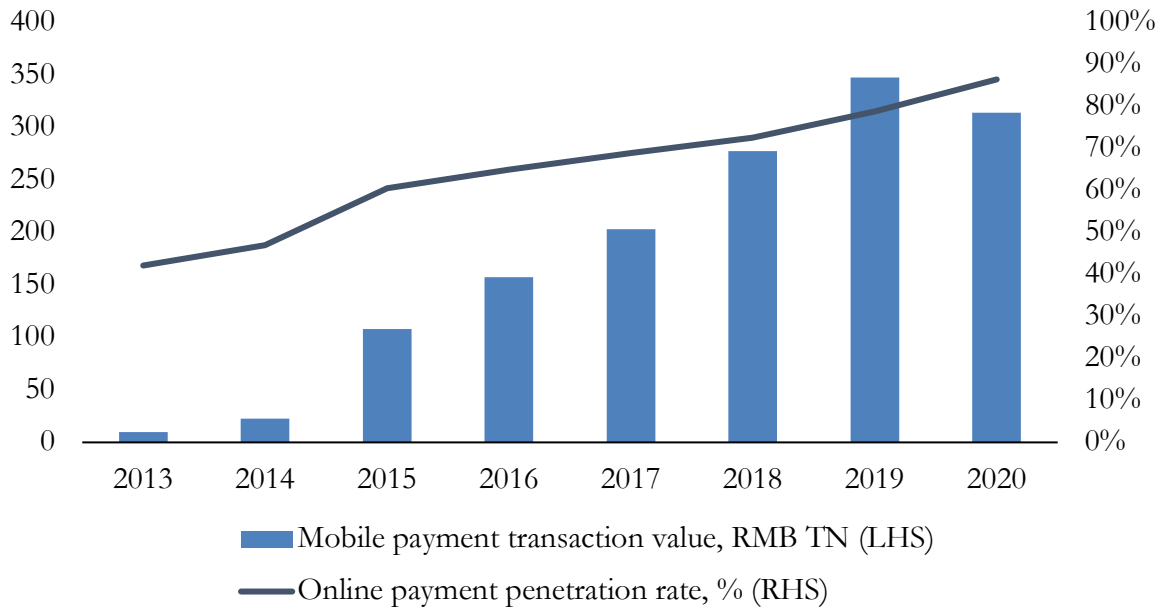
<sup>1</sup> “马云外滩金融峰会演讲全文：中国金融业还是青少年,” 新浪财经, October 24, 2020, [https://finance.sina.com.cn/money/bank/bank\\_hydt/2020-10-24/doc-iiznezxr7822563.shtml](https://finance.sina.com.cn/money/bank/bank_hydt/2020-10-24/doc-iiznezxr7822563.shtml).

For English version: “Jack Ma: We Must Do Away With Pawnshop Mentality,” *The Asset*, November 13, 2020, <https://www.theasset.com/article/42159/jack-ma-we-must-do-away-with-pawnshop-mentality>.

<sup>2</sup> “China: A Digital Payments Revolution,” CGAP, September 2019, <https://www.cgap.org/research/publication/china-digital-payments-revolution>.

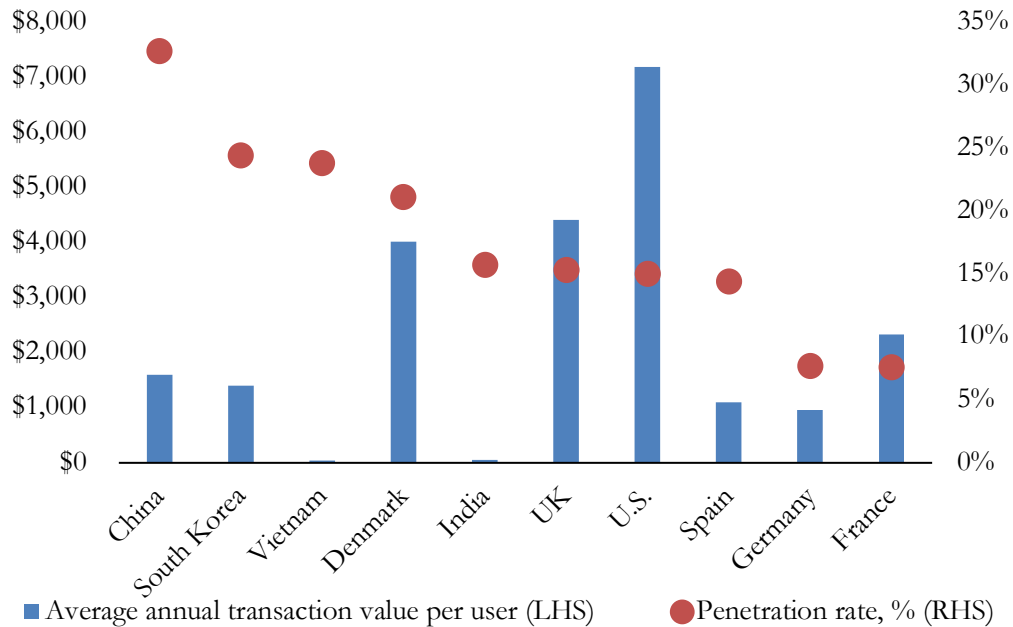
Source: iResearch

**China's third-party mobile payments' transaction volume, RMB TN, and penetration rate, %**



Source: Statista; PBoC; CNNIC

**Projected user penetration rates and transaction values in mobile POS payments (2020)**



Source: Statista; eMarketer

## Smartphone users as share of population, %, and level of adoption by country

| Country     | % of smartphone users |                     |
|-------------|-----------------------|---------------------|
| China       | 81.1%                 | Widespread Adoption |
| Denmark     | 40.9%                 | Very High Adoption  |
| India       | 37.6%                 |                     |
| South Korea | 36.7%                 |                     |
| Sweden      | 36.2%                 |                     |
| US          | 29.0%                 |                     |
| Canada      | 26.0%                 | High Adoption       |
| Norway      | 25.8%                 |                     |
| Japan       | 25.3%                 |                     |
| Switzerland | 22.3%                 |                     |
| Italy       | 21.1%                 |                     |
| Indonesia   | 19.8%                 | Moderate Adoption   |
| Netherlands | 19.7%                 |                     |
| UK          | 19.1%                 |                     |
| Australia   | 18.8%                 |                     |
| Finland     | 17.9%                 | Slow Adoption       |
| Russia      | 17.2%                 |                     |
| Spain       | 16.5%                 |                     |
| France      | 15.6%                 |                     |
| Argentina   | 14.5%                 |                     |
| Brazil      | 14.5%                 | Very Low Adoption   |
| Germany     | 12.5%                 |                     |
| Mexico      | 10.2%                 |                     |

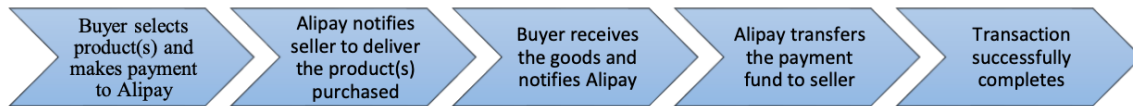
Source: Kantar TNS

### iii. Alipay (支付宝): From E-Commerce Payment Platform to Global Fintech Leader

*“Ant Microloans provides a striking example of what this future will look like. When Alibaba launched Ant, in 2012, the typical loan given by large banks in China was in the millions of dollars. The minimum loan amount—about 6 million RMB or just under \$1 million—was well above the amounts needed by most small and medium-size enterprises (SMEs). Banks were reluctant to service companies that lacked any kind of credit history or even adequate documentation of their business activities. As a consequence, tens of millions of businesses in China were having real difficulties securing the money necessary to grow their operations.”—Zeng Ming, Chairman, Academic Council of the Alibaba Group.<sup>3</sup>*

<sup>3</sup> Ming Zeng, “Alibaba and the Future of Business: Lessons from China’s Innovative Digital Giant,” *Harvard Business Review*, September-October 2018, <https://hbr.org/2018/09/alibaba-and-the-future-of-business>.

### Alipay's Payment and Escrow Service



Source: INSEAD<sup>4</sup>

Alibaba's fintech ascendance comes down to building and capturing growth in the country's ballooning e-commerce market. Alibaba's Alipay payment platform was initially launched in 2004-5 and designed internally to facilitate and securitize payments on e-commerce giant Alibaba's Taobao shopping platform. Alipay was created to help Taobao consumers and merchants transact (i.e. send/receive funds) with a greater degree of trust and security—both of which were sorely deficient in China's online and offline commercial marketplaces. The key feature was that payments received were effectively kept in an escrow account with the escrow enabling the platform to promise full compensation or refund if goods were missing or compromised.<sup>5</sup> Alipay's slogan at the time was: "As long as you use Alipay, we will compensate you in the case of account theft."<sup>6</sup> As an online payment system, Alipay increased trust in Taobao and the two systems helped grow each other in a positive feedback loop. By 2006, Alipay helped Taobao surpass foreign competitor eBay EachNet, with 67% of the market share to eBay EachNet's 29%.<sup>7</sup> By August 2007, Alipay had well over 50 million users whereas credit card users only numbered 30 million at the time.<sup>8</sup> By 2014, it has surpassed U.S. online payments equivalent, Paypal, in payments transaction volume.<sup>9</sup>

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<sup>4</sup> Kuangzhen Wu, "Ant Financial and Tencent: A Tale of Two FinTech Unicorns in China," *INSEAD* 07/2020-6588.

<sup>5</sup> Refer to company website: <https://intl.alipay.com/ihome/user/protect/memberProtect.htm>

<sup>6</sup> "Our History," Ant Group, <https://www.antgroup.com/en/about/history>.

<sup>7</sup> "How eBay Failed in China", by Helen Wang, *Forbes*, September 12, 2010, <https://www.forbes.com/sites/china/2010/09/12/how-ebay-failed-in-china/>.

<sup>8</sup> Refer to company website: <https://www.antgroup.com/en/about/history>.

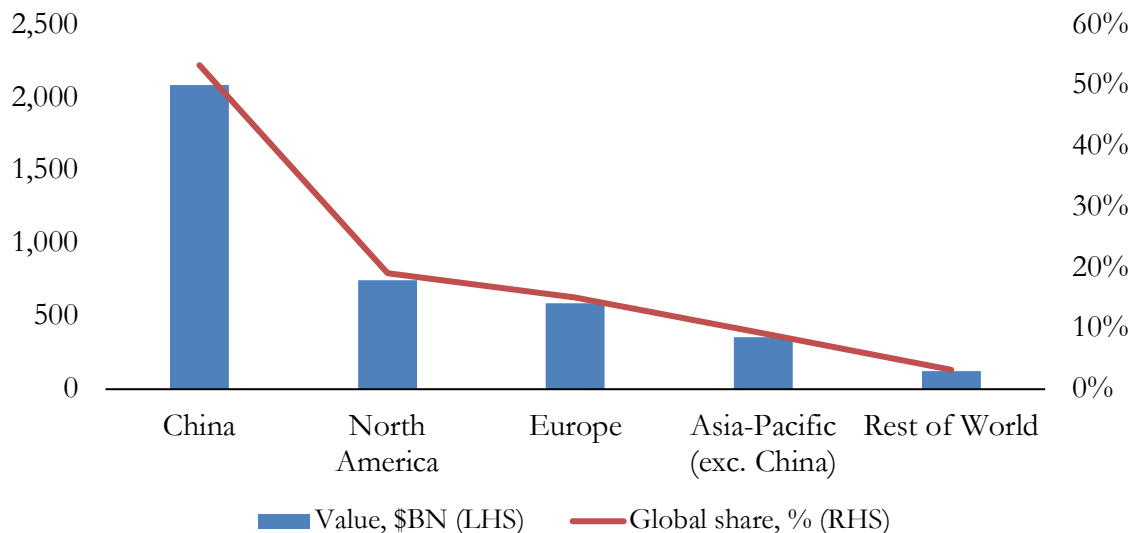
<sup>9</sup> Matthias Hendrichs, "Why Alipay is more than just the Chinese equivalent of PayPal," *TechInAsia*, August 3, 2015, <https://www.techinasia.com/talk/online-payment-provider-alipay-chinese-equivalent-paypal>.

### Ant Financial versus competitors in key business segments, 2018-2020

| Segment           | Ant Financial                                                                                                                                                                                                                     | Competitors                                                                                                                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Digital payments  |  <ul style="list-style-type: none"> <li>Annual active users: 1300m<sup>1</sup></li> <li>No. of merchants monthly: &gt;80m<sup>1</sup></li> </ul> |  <ul style="list-style-type: none"> <li>Annual active users: 346m<sup>2</sup></li> <li>Total payment volume: 222bn<sup>3</sup></li> </ul> |
| Wealth management |  <ul style="list-style-type: none"> <li>Annual active users: 330m<sup>4</sup></li> </ul>                                                         |  <ul style="list-style-type: none"> <li>Active users: 9.9m</li> </ul>                                                                    |
| Online banking    |  <ul style="list-style-type: none"> <li>Cumulated borrowers: 7m<sup>5</sup></li> </ul>                                                           |  <ul style="list-style-type: none"> <li>Cumulated borrowers: 4.5m</li> </ul>                                                              |
| Insurance         |  <ul style="list-style-type: none"> <li>Cumulated users: 380m</li> </ul>                                                                         |  <ul style="list-style-type: none"> <li>Cumulated users: 400m</li> </ul>                                                                  |
| Credit reference  |  <ul style="list-style-type: none"> <li>Cumulated users: 190m<sup>6</sup></li> </ul>                                                             | <ul style="list-style-type: none"> <li>People in credit reference system in the U.S: 250m</li> </ul>                                                                                                                        |

Source: Statista

### Global e-commerce market breakdown by value, \$BN, and global share, %, 2020



Source: eMarketer

Alibaba quickly expanded the Alipay payment platform by adding a suite of new fintech services beyond payments, further broadening Alipay's appeal and the stickiness of its growing financial ecosystem. In 2009, the Alipay mobile payment app was launched followed by the introduction of the quick payment with credit card service in 2010-11, with the latter involving joint partnerships with China's commercial banks. The QR code payment system was initiated in 2011, allowing Alipay to monetize the offline market

with its online payment technologies and further increasing its stranglehold on online and offline operations.

From 2013 onwards, Alipay began to venture into more lucrative credit and investment services. It started this démarche with the launch of its money market fund, Yu'e Bao (余额宝), Zhao Cai Bao (招财宝), a B2C wealth management platform, and Huabei (花呗) and Jiebei (借呗), both online microloan products. The launch of MYBank in 2015 enabled the newly titled Ant Financial to offer loans and wealth management services to small and medium-sized businesses (SMBs) and individual consumers.<sup>10</sup> According to China's National Finance and Development Institution, as much as two thirds of China's small businesses were being denied access to credit at the time.<sup>11</sup> Furthermore, 80% of MYBank's clients were regarded as too risky to be offered credit from traditional commercial banks.<sup>12</sup> Ant executives stated in a meeting in 2018 that "[traditional] banks serve 20% of the population and 80% of the margin," whereas Ant itself "serves 80% of the population and 20% of the margin."<sup>13</sup> As part of its mission for "inclusive finance", Ant also launched Xianghubao (相互保), an online mutual aid health insurance platform in 2018, targeting basic health plans for rural Chinese and migrant workers. More recently, is seeking to grow its robo-advisory and wealth management services through the Ant, Vanguard-backed BangNiTou (帮你投) and Alipay's Tougu Guanjia (投顾管家).<sup>14</sup>

Through real-time payment data and machine learning (ML) algorithms, Ant was able to generate its credit scoring system, Zhima Credit Score, and other credit risk assessment models to swiftly compute and approve loan amounts and terms. The company soon realized that its proprietary technology, called BASIC (Blockchain, Artificial Intelligence, Security, IoT, and Computing), could help develop new businesses and clients and ultimately sell its proprietary technologies, including biometric verification, to other financial institutions—even traditional banks.<sup>15</sup> In 2016, company executives began internally to describe and package Ant as a "TechFin" rather than a "FinTech" company.<sup>16</sup>

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<sup>10</sup> The parent company of Alipay changed its name to Ant Financial in 2014. Ant Financial was later renamed as Ant Group in 2020 and will subsequently be referred to as "Ant".

<sup>11</sup> "Jack Ma's Online Bank is Leading a Quiet Revolution in Chinese Lending," *Fortune*, July 29, 2019, <https://fortune.com/2019/07/29/jack-ma-mybank-lending/>.

<sup>12</sup> Wei, Lian, Hui, Bian, et al. *Ant Financial—From Alipay to New Financial Ecosystem (蚂蚁金服—从支付宝到新金融生态圈)*. (Beijing: China People's University Publishing House, July 2017).

<sup>13</sup> Interview with Ant Group executives, Hangzhou, August 15, 2018.

<sup>14</sup> "Vanguard Plans Capital Boost in Ant Venture After China Retreat," *Bloomberg*, May 10, 2021, <https://www.bloomberg.com/news/articles/2021-03-18/ant-vanguard-backed-robo-adviser-hits-1-million-users-in-china?sref=ojq9DlIU>.

<sup>15</sup> Rita Liao, "Ant Financial Says it Doesn't Really Compete with Financial Firms. Here's Why," *TechInAsia*, June 21, 2018, <https://www.techinasia.com/ant-financial-wants-to-be-tech-company>.

<sup>16</sup> Meeting with Ant CEO Eric Jing et al., Hangzhou, January 11, 2018. Zen Soo, "TechFin: Jack Ma Coins Term to Set Alipay's Goal to Give Emerging Markets Access to Capital," *SCMP*, December 2, 2016, <https://www.scmp.com/tech/article/2051249/techfin-jack-ma-coins-term-set-alipays-goal-give-emerging-markets-access>.

The diagram illustrates the application of Big Data and Machine Learning in credit risk management. It shows a flow from data sources to risk assessment and management.

**Central bank credit registry information** (represented by a bank icon) provides **Credit history** to the **Big Data** cloud.

The **BigTech Platform** (represented by a cloud icon) provides a **Digital footprint** to the **Big Data** cloud.

The **Big Data** cloud provides **Repayment records** to the **Fintech credit risk assessment models** (represented by a green box).

**Machine learning models** (represented by a green hexagon) also feed into the **Fintech credit risk assessment models**.

The **Fintech credit risk assessment models** output **Predicting ability and willingness to repay loans** (represented by a grey box).

The **Big Data** cloud also provides **Real-time monitoring** to the **Predicting ability and willingness to repay loans** box.

The **Predicting ability and willingness to repay loans** box identifies **Moral hazard problem** and **Adverse selection problem**.

The **Big Data** cloud also identifies **Punishing default** and **Adverse selection problem**.

The **BigTech Platform** identifies **Long-tail customers**.

The **Adverse selection problem** and **Moral hazard problem** lead to **Risk identification** and **Repayment management** (represented by boxes).

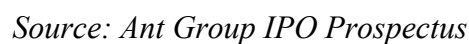
The **Long-tail customers** lead to **Customer acquisition** (represented by a box).

The **Customer acquisition** and **Risk identification** lead to **Repayment management** via a green arrow.

On the right, logos for **MYbank** (网商银行), **XW 新网银行**, and **WeBank** (微众银行) are displayed.



蚂蚁集团  
ANT GROUP



<sup>17</sup> Meeting with Ant CEO Eric Jing et al., Hangzhou, January 11, 2018.

and that Ant's priority should be to capture that fast-growing Asian market. In 2018, it launched the AntChain Blockchain-as-a-Service open platform, which offered a blockchain-based solutions to financial and commercial problems including international remittance services for individuals in Hong Kong and the Philippines via blockchain-based e-wallets.<sup>18</sup> By 2018, Ant had already secured 9 global partnerships with foreign fintech players such as South Korea's Kakao, India's Paytm, Thailand's TrueMoney, and Indonesia's DANA.<sup>19</sup> Ant's strategy was to hold minority stakes in each partnership and deploy "processor teams" to provide the SAAS layer and risk management consulting services.<sup>20</sup> Tangentially, Ant also worked to increase interoperability between QR-based local Chinese e-wallets and foreign merchants.<sup>21</sup> By 2020, Ant announced that it was able to service 27 currencies and work with 250 overseas financial institutions and payment providers. By its own estimates, by March 2020, the number of annual active users (AAUs) and its nine local e-wallet partners reached approximately 1.3 billion globally.<sup>22</sup>

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<sup>18</sup> "Ant Financial Launches Blockchain International Remittances," *Ledger Insights*, June 25, 2018, <https://www.ledgerinsights.com/ant-financial-blockchain-remittance-gcash/>.

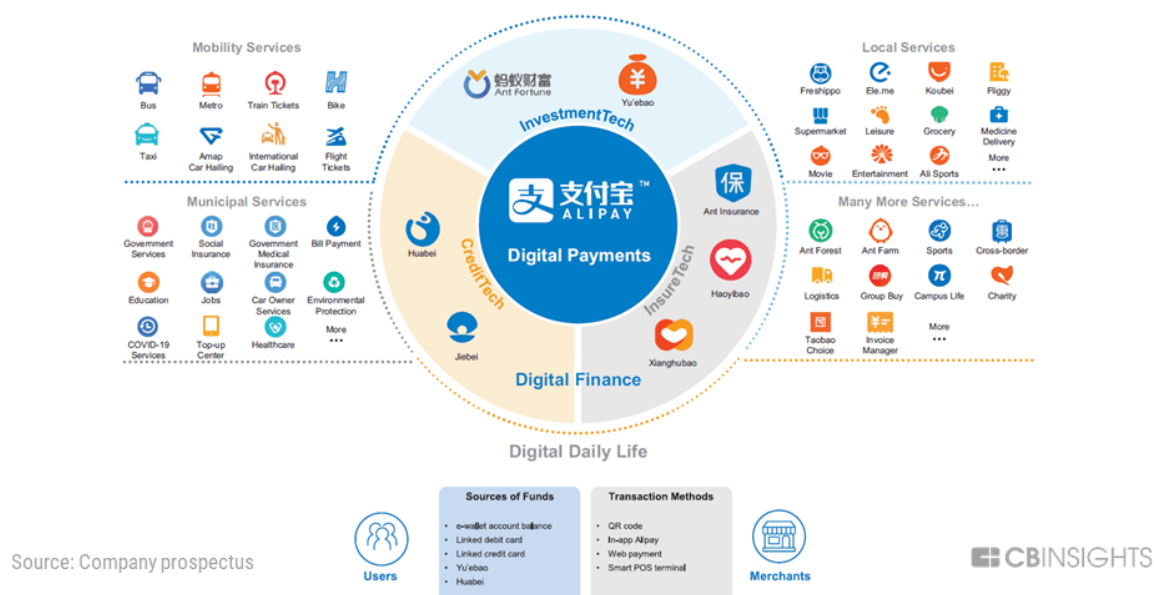
<sup>19</sup> <https://www.antgroup.com/en/global-inclusion>.

<sup>20</sup> Meeting with Ant CEO Eric Jing et al., Hangzhou, January 11, 2018. Interview with Ant Group executives, Hangzhou, August 15, 2018.

<sup>21</sup> "Alipay Teams Up With European Mobile Wallet Operators," *Finextra*, June 10, 2019, <https://www.finextra.com/pressarticle/78728/alipay-teams-up-with-european-mobile-wallet-operators>.

<sup>22</sup> "Alibaba Group Fiscal Year 2020 Annual Report," [https://www.sec.gov/Archives/edgar/data/1577552/000110465920082881/a20-6321\\_46k.pdf](https://www.sec.gov/Archives/edgar/data/1577552/000110465920082881/a20-6321_46k.pdf). As of March 31, 2020, Ant's nine local e-wallet partners include Bangladesh, Hong Kong, India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, and Thailand.

## Ant's payment platform is designed to promote ease of use and keep funds within the system



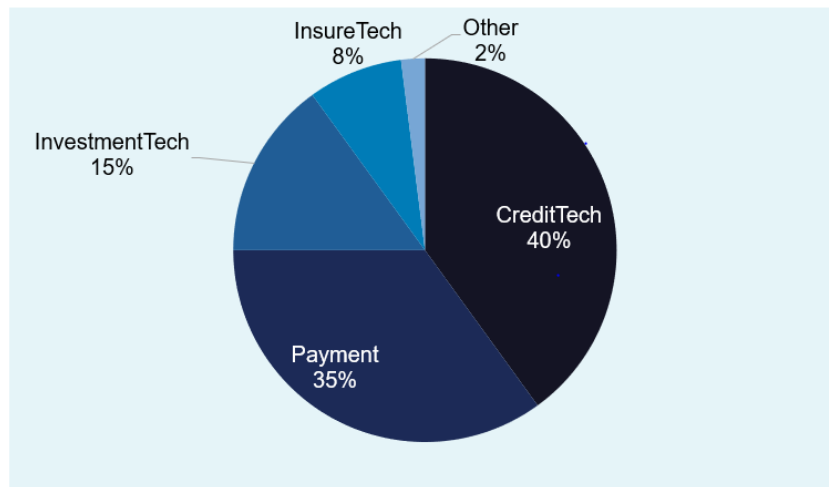
China now has the largest e-commerce and mobile payments market. From 2008-2014, China's mobile Internet users grew by over 400 million.<sup>24</sup> Alipay leveraged and supported China's mobile and Internet boom, becoming the leading Chinese and global third-party mobile payment platform. Its foray into a wider array of financial services over the past decade has pushed more and more Chinese consumers towards borrowing and investing. In 2020, Ant Group was reported to have \$173BN of assets under management, \$290BN in consumer loans, \$17TN in online payments processed via Alipay from June 2019-2020, and 107 million people signed up to its mutual aid healthcare plan, Xianghubao.<sup>25</sup> As of June 2020, Ant's core businesses by revenue—before the well-publicized suspension of its IPO in November—were more evenly distributed between payments (35% of revenue) and lending (40%), with the remaining revenue stemming from its investment (15%) and insurance (8%) arms.

<sup>23</sup> "The World's Largest Fintech Is Going Public: What's Next?," *CB Insights*, October 28, 2020, <https://www.cbinsights.com/research/ant-group-success-obstacles/>

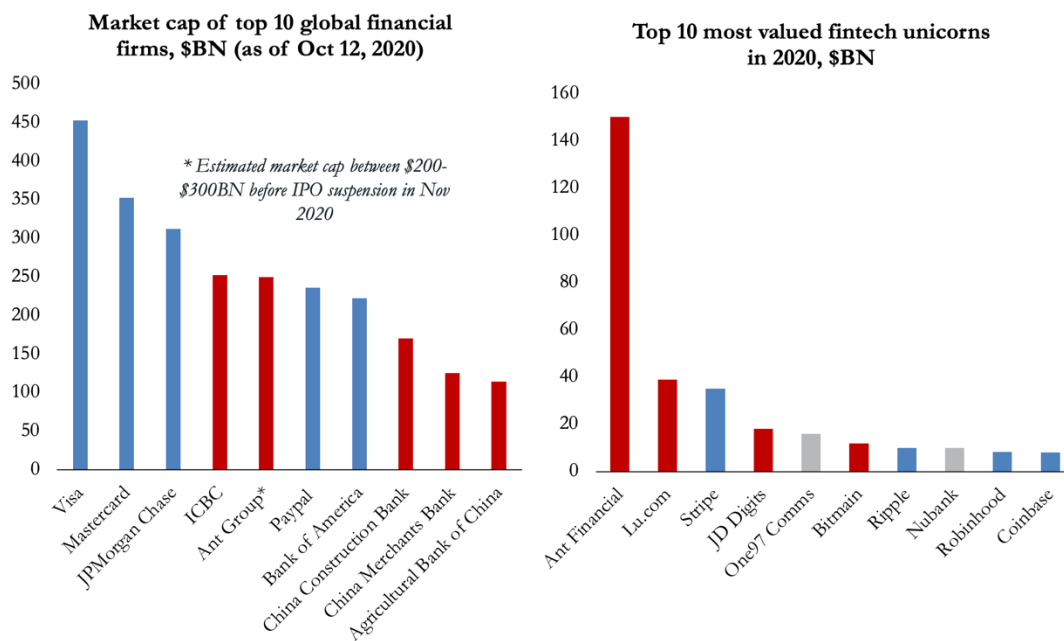
<sup>24</sup> "What the Largest Global Fintech Can Teach Us About What's Next in Financial Services," *CB Insights*, October 4, 2018, <https://www.cbinsights.com/research/ant-financial-alipay-fintech/>

<sup>25</sup> Lulu Yilun Chen, "As IPO Looms, All You Need to Know About Jack Ma's Ant Group," *Bloomberg*, August 29, 2020, <https://www.bloomberg.com/news/articles/2020-08-30/as-ipo-looms-all-you-need-to-know-about-jack-ma-s-ant-group?sref=ojq9DljU>.

### Breakdown of Ant's core businesses by % of total revenue



Source: Ant Group IPO Prospectus (as of June 30, 2020); Tech Buzz China; Seeking Alpha<sup>26</sup>



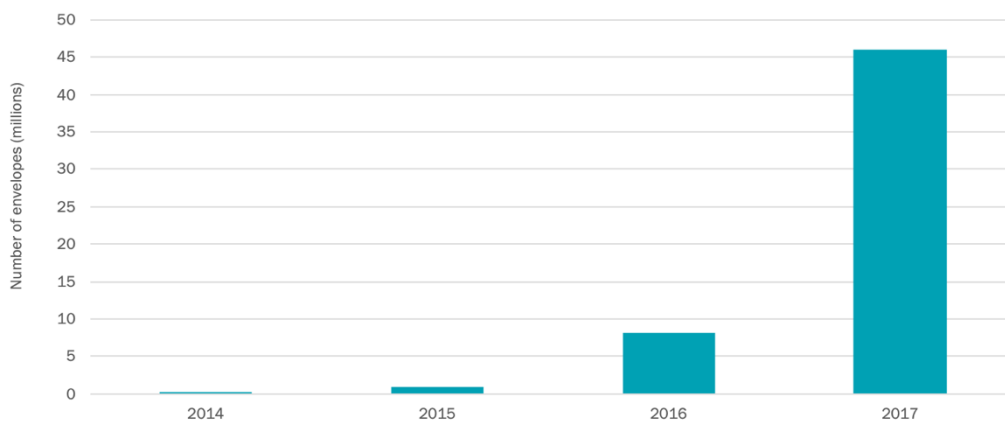
Source: Statista; Bloomberg

<sup>26</sup> Brendan Ahern, "Ant Group 101," *Seeking Alpha*, October 15, 2020, <https://seekingalpha.com/article/4379258-ant-group-101>.

iv. *WeChat Pay (微信支付): From Social Media App to One-Stop Digital Lifestyle Ecosystem*

By contrast, Tencent's fintech entrée and rapid ascent from 2014 onwards depended on the substantial network effects of its WeChat (微信) social messaging super app. After a botched effort to create a gaming digital coin, Q-coin or QQ coin, in 2002, Tencent turned its attention to its popular fast-growing WeChat app in a bid to design an alternative payment platform to Alipay.<sup>27</sup> Three years after the launch of WeChat, Tencent marked the 2014 Lunar New Year celebrations by issuing digital "Red Envelopes" (红包), leveraging a Chinese tradition of money-gifting to family and friends, through the WeChat app. This encouraged mass onboarding of Chinese consumers onto WeChat Pay and the connecting of their bank accounts to the WeChat Wallet. By 2016, well over 46 billion red envelopes were circulated among WeChat friends using the app—up from 16 million in 2014.<sup>28</sup> From 2014 to 2016, WeChat Pay's market share of third-party mobile payments rose from 10% to 32%, whereas Alipay's dipped from 80% to 55%.<sup>29</sup>

**FIGURE 3: TOTAL RED ENVELOPES EXCHANGED VIA WECHAT PAY (MILLIONS)**



Source: Momentum Works<sup>19</sup>

Source: Aaron Klein, *Brookings*

The battle between Tencent and Ant became extremely fierce in the subsequent years. Tencent advanced in lockstep with Ant and its parent company, Alibaba, to create highly integrated and accessible financial products and services, and to invest heavily in other tech firms and would-be rivals (e.g. ride-hailing, food delivery, bike-sharing, etc.) These

<sup>27</sup> Matthew De Silva, "Tencent Created QQ Long Before Facebook's Libra," *Yahoo Finance*, July 11, 2019, <https://finance.yahoo.com/news/tencent-created-qq-coin-long-090055833.html>.

<sup>28</sup> Aaron Klein, "China's Digital Payments Revolution," *Brookings*, April 2020, [https://www.brookings.edu/wp-content/uploads/2020/04/FP\\_20200427\\_china\\_digital\\_payments\\_klein.pdf](https://www.brookings.edu/wp-content/uploads/2020/04/FP_20200427_china_digital_payments_klein.pdf).

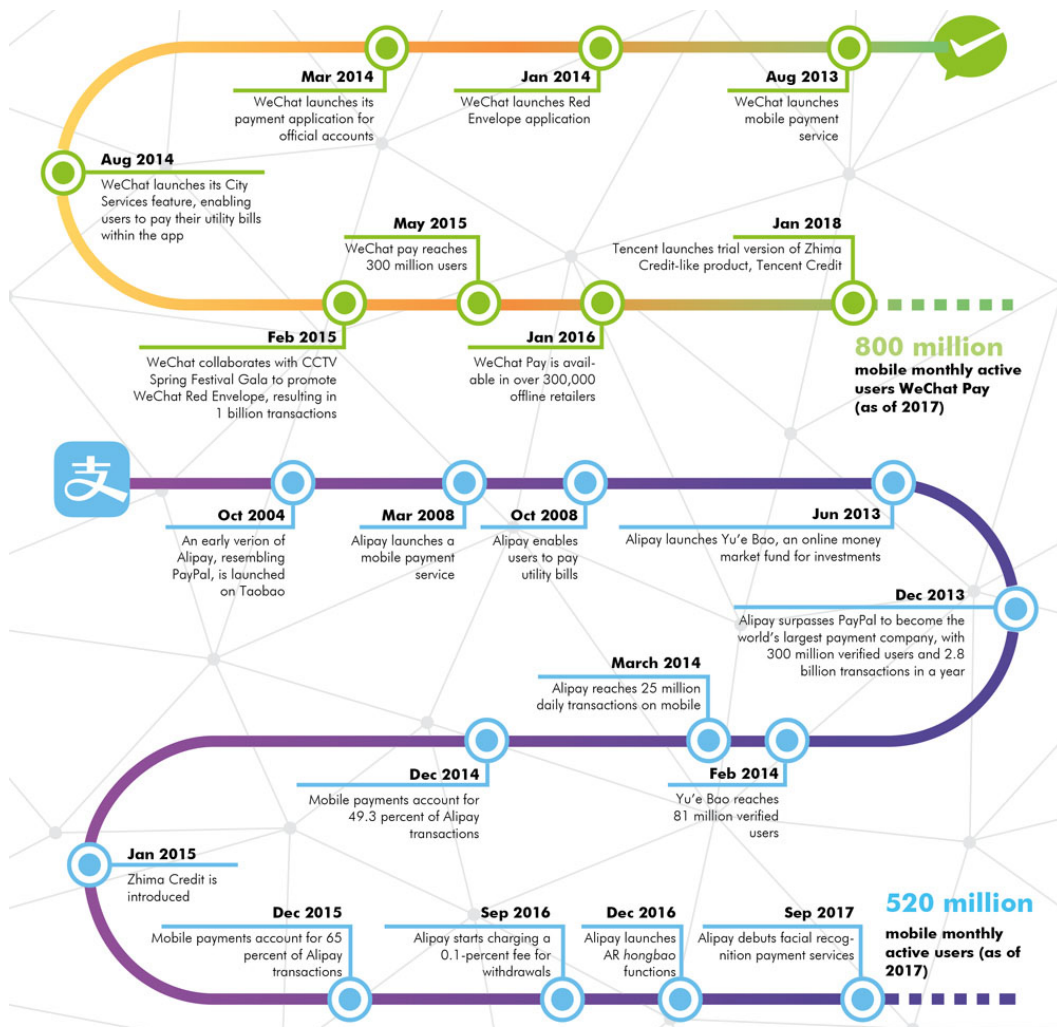
<sup>29</sup> Wei, Lian, Hui, Bian, et al. *Ant Financial—From Alipay to New Financial Ecosystem (蚂蚁金服—从支付宝到新金融生态圈)*. (Beijing: China People's University Publishing House, July 2017).

initiatives and investments spawned an increasingly complex and interconnected digital lifestyle-enabled ecosystem. In 2014, Tencent started LiCaiTong (理财通), a wealth management platform similar to Ant Fortune, reported to have managed RMB 900BN (US\$127BN) in assets by end-2019.<sup>30</sup> In 2015, WeBank became China's first online-only bank, providing microloans to consumers through Weilidai (微利贷) and to SMBs through Weiyedai (微业贷). In 2018, Tencent launched LingQianTong (零钱通), a money market fund equivalent to Ant's Yu'e Bao, and Tencent Credit (a rival product to Ant's Zhima Credit).

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<sup>30</sup> "Tencent Annual Report 2019," Tencent, <https://static.www.tencent.com/uploads/2020/04/02/ed18b0a8465d8bb733e338a1abc76b73.pdf>.

## Timeline of major developments in WeChat Pay and Alipay's growth



Source: WalkTheChat<sup>31</sup>

<sup>31</sup> Dominic Ngai, "Is China Ready for a Cashless Future," *thatsmags.com*, March 30, 2018, <https://www.thatsmags.com/shenzhen/post/22731/china-cashless-society>.

## Major tech investments and acquisitions by Alibaba and Tencent, as of Dec 2018

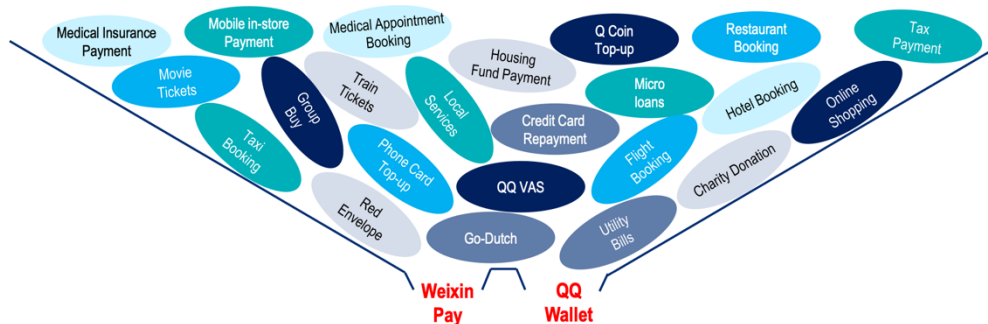
| Segment                        | Alibaba-owned/backed  | Tencent-owned/backed  | Dominant player |
|--------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------|
| Online retail                  | Tmall, Taobao                                                                                          | JD.com; Weidian; Youzan                                                                                 | Alibaba         |
| Social/messaging/microblogging | Sina Weibo (microblogging)                                                                             | WeChat; QQ                                                                                              |                 |
| Electronic payments            | Alipay                                                                                                 | WeChat Pay                                                                                              | Parity          |
| Financial Services             | Ant Financial – Alipay & Yu’e Bao                                                                      | Tencent Industrial Fund                                                                                 | Alibaba         |
| Cloud computing                | Aliyun                                                                                                 | Tencent Cloud                                                                                           | Alibaba         |
| Music, video                   | Alibaba Pictures, Youku Tudou                                                                          | Tencent Music Entertainment Group; QQ; Tencent Video                                                    | Tencent         |
| Media                          | South China Morning Post                                                                               | Caixin Media                                                                                            |                 |
| Bike sharing                   | Ofo                                                                                                    | Mobike                                                                                                  |                 |
| Food delivery                  | Ele.me                                                                                                 | Meituan Dianping                                                                                        |                 |
| Online gaming                  |                                                                                                        | WeGame                                                                                                  | Tencent         |
| Market cap (Dec 7, 2018)       | \$377.59BN                                                                                             | \$378.311BN                                                                                             |                 |

Source: Various company websites and media reports

By 2017, WeChat Pay was beginning to surpass its precursor, Alipay, in many key growth metrics. WeChat Pay (800 million) had more mobile monthly active users (MAUs) than Alipay (520 million) in 2017, testifying to the power of its super app’s positive network externalities. In 2018, WeChat Pay registered 460 billion annual transactions and 1.2 billion average daily transactions compared with Alipay’s 197.5 billion annual transactions and 0.5 billion average daily transactions.<sup>32</sup> According to Ipsos’ calculations, in Q4 of 2018 WeChat Pay had a higher penetration rate (86.4% of mobile payment users) than Alipay (70.9%).

<sup>32</sup> “2018 年支付数据出炉：财付通 4600 亿笔，支付宝 1975 亿笔，” 新金融琅琊榜, February 3, 2019, <https://mp.weixin.qq.com/s/qRKdoToqDz3qdf5tb5DoxQ>.

Figure 33. Weixin Pay and QQ Wallet



Source: Company Reports, Citi Research

Source: Citi Research

|                                        | ANT GROUP                                                     | Tencent 腾讯                                 |
|----------------------------------------|---------------------------------------------------------------|--------------------------------------------|
| Monthly active users                   | 711 million<br>(Alipay, 2020)                                 | 800 million<br>(WeChat Pay, 2019)          |
| Revenue                                | \$17 billion<br>(2019)                                        | \$12 billion<br>(2019 estimate)            |
| Payments<br>(China market share, 2020) | 55%                                                           | 39%                                        |
| Micro lending                          | \$308 billion<br>(credit balance, June 2020)                  | \$540 billion<br>(total issued, 2015-2019) |
| Assets under management                | \$600 billion<br>(June 2020)                                  | \$131 billion<br>(2019)                    |
| Insurance                              | \$7.6 billion<br>(premium and contributions, year ended June) | \$42.4 million<br>(payout, H1)             |

Sources: Ant Group, Tencent, iResearch

Source: TechCrunch, Ant Group, Tencent, iResearch<sup>33</sup>

Both WeChat Pay and Alipay now offer A–Z lifestyle services and applications well beyond payments, extending to lending, wealth management, mutual funds, and big data analysis for banks. Neither company charges for person-to-person transactions, levying a minimum 0.1% fee for withdrawals over a certain threshold. Most of their profits therefore come not directly from payments, but from the wider financial ecosystem and services netted around them. Technological innovation aside, the mass subsidization of payments by both Ant and Tencent should not be overlooked. Some analysts estimate that Tencent’s merchant subsidy amounted to as much as \$1 billion in 2018 while Ant’s was

<sup>33</sup> Rita Liao, “The Race to be China’s Top Fintech Platform: Ant vs. Tencent,” *TechCrunch*, November 9, 2020, <https://techcrunch.com/2020/11/09/tencent-vs-alibaba-ant-fintech/>

as high as \$2-\$4 billion.<sup>34</sup> Similarly, Ant and Tencent have tried to subsidize cross-border payments to encourage foreign adoption.<sup>35</sup>

v. *Unseating the Alibaba-Tencent Duopoly?*

Similarly, in China, Alibaba and Tencent have been locked in fierce competition, forcing merchants to “pick one from two” of the platforms and blocking consumer to other platforms through their apps.<sup>36</sup> For instance, Chinese consumers currently cannot pay via WeChat Pay on Alibaba’s Taobao and Tmall e-commerce platforms. In turn, WeChat users cannot use Alipay in the WeChat super app.<sup>37</sup>

Big tech companies in China and elsewhere are increasingly viewed as modern-day monopolists or “robber barons” of the new data-driven age. Incumbent tech firms—whether they be GAFA (Google/Alphabet, Amazon, Facebook, and Apple); FAANG (Facebook, Amazon, Apple, Netflix, Google/Alphabet); or China’s BAT (Baidu, Alibaba, Tencent)—all benefit from network effects and increasing economies of scale. These two principles alone have allowed these tech platforms to monetize and control the ecosystems they build around them more cost-efficiently than smaller rivals.<sup>38</sup> They have also been adept at unlocking new demand and value through what Chris Anderson has elsewhere called the “long tail” of generating endless choice and unlimited demand in niche goods. The monopoly effects also extend to the realms of investment and other anti-competitive tactics (e.g. copying, legal action, privileging of one’s content and/or platform). These tech companies have been aggressive in their backing of would-be rivals (e.g. Tencent’s backing of e-commerce platform Kuaishou) and frequently either privileged their own platforms or actively blocked users from accessing other companies’ content or platforms (e.g. Alibaba vs. Tencent). There is concern that artificial intelligence (AI) and machine learning (ML) technologies will further entrench monopoly effects by leveraging the power of algorithms and access to data to further enhance efficiency and usability. Brynjolfsson, McAfee and Spence write in a 2014 *Foreign Affairs* piece that “superstar-based technical elite” basically benefit from a winner-take-all model or Zipf’s law (i.e. a pareto-like distribution) in which most of the profits and market share in the digital economy accrue to the few at the top.

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<sup>34</sup> Sijia Jiang, “Tencent Says Payment Subsidy War Set To Continue After Profit Beat,” *Yahoo News*, May 16, 2018, <https://sg.news.yahoo.com/tencent-profit-surges-above-estimates-mobile-gaming-investments-110120421--finance.html>.

<sup>35</sup> According to one analyst, Alipay offered RMB 1BN in cash incentives to cross-border payment users in Japan. Tingyi Chen, “The Cross-border Payment War of WeChat Pay and Alipay,” *WalkTheChat*, February 25, 2019, <https://walkthechat.com/the-cross-border-payment-war-of-wechat-pay-and-alipay/>.

<sup>36</sup> Jane Zhang and Celia Shen, “Alibaba Antitrust Investigation: What is the ‘Picking One From Two’ Practice That Triggered an Official Probe?,” *SCMP*, December 24, 2020, <https://www.scmp.com/tech/enterprises/article/3115300/alibaba-antitrust-investigation-what-picking-one-two-practice>.

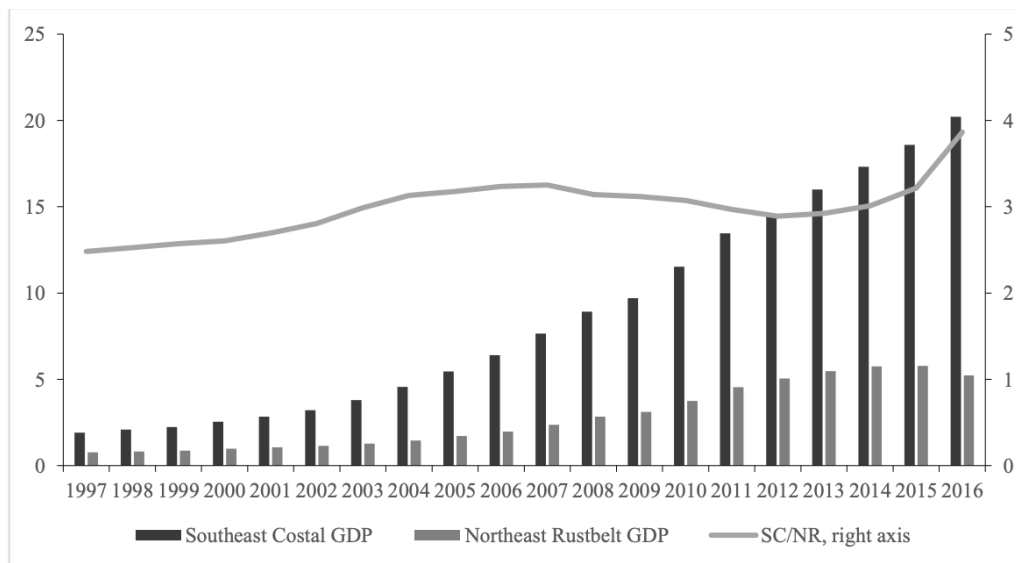
<sup>37</sup> Tracy Qu and Jane Zhang, “ByteDance, Meituan and Pinduoduo: China’s second tier tech giants poised to challenge payments duopoly,” *SCMP*, December 31, 2020, <https://www.scmp.com/tech/apps-social/article/3115948/bytedance-meituan-and-pinduoduo-chinas-second-tier-tech-giants>.

<sup>38</sup> Ben Thompson, “The Moat Map,” *Stratechery*, May 15, 2018, <https://stratechery.com/2018/the-moat-map/>.

The COVID-19 pandemic has increased the capabilities and powers accrued to China's tech firms and will reinforce China's uneven "K-shaped" recovery. The differences between China's tech-driven wealthy eastern cities (e.g. Beijing, Shanghai, Hangzhou, Shenzhen) and the rural interior are already starkly apparent. Autor and Reynolds (2020) find that the COVID-19 pandemic will increase the imbalances in favour of high-wage and high-skilled workers who can continue to add value and work 'remotely' at the expense of low-wage and low-skilled workers. It is worth adding to this analysis that the rise of the "gig economy" and part-time contracting through "sharing platforms" such as food-delivery (e.g. Meituan and Eleme) and ride-hailing (e.g. DiDi and Caocao) will continue to reduce workers' bargaining power, adding to the propellants of inequality in the labour force and the economy and society more broadly. These are cause for deep-seated concerns for the Chinese Communist Party (CCP), which has long sought to be responsive to social pressures as part of what some political scientists have called its singular model of "authoritarian responsiveness" or "authoritarian resilience."<sup>39</sup>

The Chinese government has cause to be concerned about rising regional and socio-economic inequalities arising from its increasingly uneven economic structure. In the aftermath of the Global Financial Crisis 2008-9, the income gap and GDP gap between China's southeast coastal provinces (i.e. Guangdong, Zhejiang and Jiangsu) and northeast "Rust Belt" provinces (i.e. Liaoning, Jilin and Heilongjiang) has risen significantly.

#### Chinese coastal vs. northeast 'Rust Belt' provinces' GDP gap



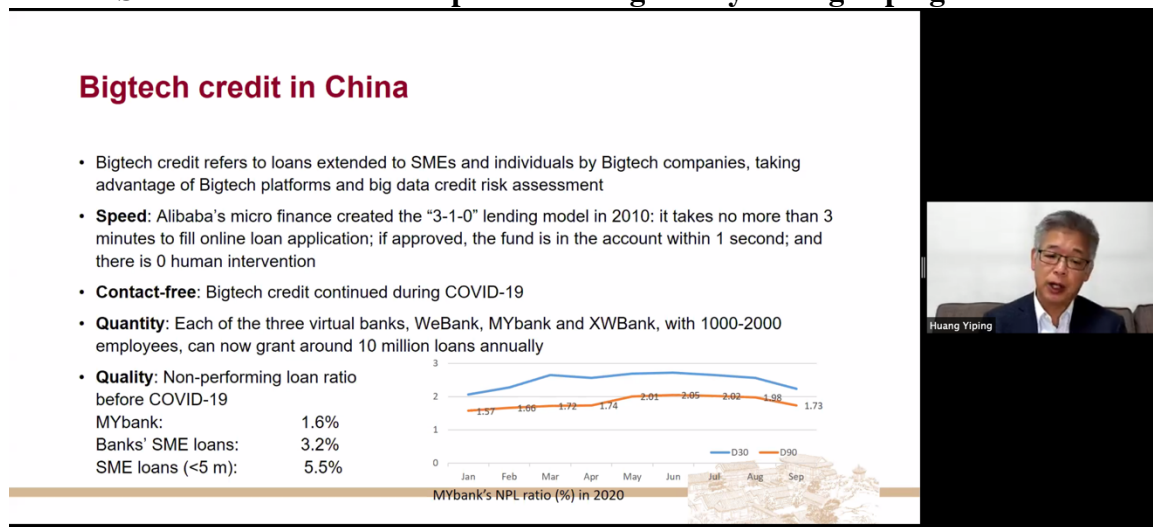
<sup>39</sup> For a study of "authoritarian responsiveness," see Runya Qiaoan and Jessica C. Teets, "Responsive Authoritarianism in China—A Review of Responsiveness in Xi and Hu Administrations." *Journal of Chinese Political Science* 25: 139-153, 2020.

For Nathan's influential work on "authoritarian resilience," consult Andrew J. Nathan, "Authoritarian Resilience." *Journal of Democracy* 14 (1): 6-17, 2003.

Source: NBS; Xu and Han (2018)<sup>40</sup>

Moreover, the era of big data and machine learning has incontrovertibly reinforced the “moating” and monopoly effects of data-rich platform companies by increasing their speed, competitiveness and efficiency. In fintech especially, these efficiency gains are reflected in fintech companies’ lending record. Gambarcota, Huang et al. (2019) find in their economic analysis of Ant’s proprietary transaction data that the machine learning and big data-based approach employed by Ant was better able to predict credit losses and defaults than traditional banking models.<sup>41</sup> Furthermore, according to one of the paper’s authors, Peking University economics professor Huang Yiping, each of the three virtual banks, Tencent’s WeBank, Ant’s MYbank, and XWBank can now grant “around 10 million loans annually.” Their non-performing loans (NPLs) for small and medium-sized enterprises (SMEs) before COVID-19 were found to be much lower than commercial banks.

### Screenshot from virtual presentation given by Huang Yiping in 2020

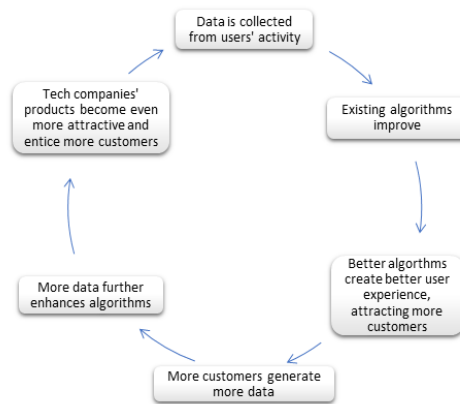


Source: Huang Yiping (2020)

<sup>40</sup> Xiang Xu and Alice Siqi Han, “Will China Collapse: A Review, Assessment and Outlook,” Economics Working Paper 18104, February 2018, [https://www.hoover.org/sites/default/files/research/docs/18104-xiang\\_xu.pdf](https://www.hoover.org/sites/default/files/research/docs/18104-xiang_xu.pdf).

<sup>41</sup> Leonardo Gambarcota, Huang Yiping et al., “How Do Machine Learning and Non-Traditional Data Affect Credit Scoring? New Evidence from a Chinese Fintech Firm,” CEPR Discussion Paper No. DP14269, December 2019, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3518598](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3518598). Interview with Huang Yiping, Beijing, March 22, 2019.

## Monopoly Effects of Tech Platforms



*Source: Niyazov (2019)<sup>42</sup>*

Nevertheless, new Chinese tech players are jumping on the fintech bandwagon, leveraging their own networks and platforms to compete with Ant and Tencent for market share. Traditionally, other tech platforms have had to rely on WeChat Pay and Alipay for online transactions. They realize that they can monetize the data and network they own through their platform, making payments a natural next step. For the first time since 2016, financial regulators have issued financial licenses for online third-party payments to Chinese tech platforms including social media ByteDance (Douyin), Bilibili, Pinduoduo, Kuaishou, and Ctrip.<sup>43</sup> These companies run the gamut of different tech sectors, ranging from e-commerce and social media to travel and video streaming. Bytedance has already launched Douyin Pay for in-app purchases, alongside WeChat Pay and Alipay. These firms have yet to delve into lending, insurance, and wealth management products and services, but it is only a matter of time before they expand in these directions.

Furthermore, there are future opportunities in fintech for new entrants seeking to leverage the blockchain as their competitive advantage. In November 2019, President Xi Jinping reversed Chinese policy, launching a national campaign to make China a global leader in blockchain technologies. The Chinese government is investing in ways to influence decentralized crypto platforms—as they have successfully done through other platforms including social media—in order to use these information network technologies as an offensive weapon.<sup>44</sup> In April 2020, China launched the Blockchain-based Services Network (BSN)—a consortium blockchain framework designed to lower the cost of

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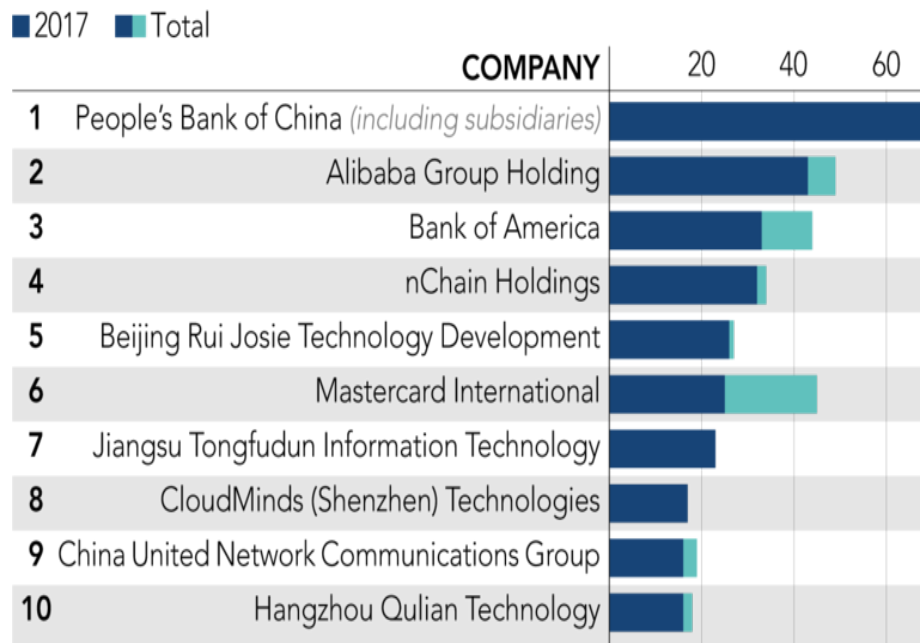
<sup>42</sup> Sukhayl Niyazov, “AI-powered Monopolies and the New World Order,” June 27, 2019, <https://towardsdatascience.com/ai-powered-monopolies-and-the-new-world-order-1c56cfc76e7d>.

<sup>43</sup> David Wertime, “U.S. Tech Wants To Work More With China,” *Protocol*, March 17, 2021, <https://www.protocol.com/newsletters/protocol-china/tech-workers-on-china?rebelltitem=8-rebelltitem8>.

<sup>44</sup> Coco Feng and Jane Zhang, “What Xi Jinping’s blockchain advocacy means for China - and the world,” *South China Morning Post*, November 14, 2019, <https://www.scmp.com/tech/blockchain/article/3037541/explainer-what-xi-jinpings-blockchain-advocacy-means-china-and>

building new blockchain technologies (i.e. decentralized apps or DApps).<sup>45</sup> BSN seeks to build a global “internet of blockchains” and models itself on the Android or Apple’s IOS ecosystems for app development. Developers can use BSN to build and run DApps for all sorts of platforms (e.g. financial services, logistics and manufacturing, law, governance, etc.), using different chain protocols on city nodes. The state-backed project has global ambitions too: it has split into two entities (BSN-China and BSN-International) and integrated with public chains including Ethereum, EOS, Tezos, and IRISnet.<sup>46</sup> This split is designed to strengthen and safeguard domestic control while developing global cross-chain interoperability. In theory, these public chains will allow participants to access financial data from Chinese companies via China UnionPay and serve as the digital infrastructure for transfers of data, value, and assets across China’s Digital Silk Road and Belt and Road Initiative (BRI). According to CEO of Beijing Red Date Technology and Executive Director of BSN Development Association, Yifan He: “the current blockchain industry, from a technical point of view, [is] similar to the Internet of 1993 and 1994... We want to see BSN grow as a huge interoperability environment. First, data on all chains will be interoperable. Second, it must be cheap for everyone to use. It must be infinitely close to zero”.<sup>47</sup>

### Global blockchain patent ranking, 2018



<sup>45</sup> “Blockchain-based Service Network (BSN) Introductory White Paper,” BSN Development Association, February 5, 2020,

<http://kb.bsnbase.com/webdoc/view/PubFile4028813e70be89020170c30825450171.html>.

<sup>46</sup> Zheping Huang, “China-Backed Crypto Guru Wants to Unify World’s Blockchain,” *Bloomberg*, July 27, 2020, <https://www.bloombergquint.com/technology/china-backed-crypto-guru-wants-to-unify-the-world-s-blockchains>.

<sup>47</sup> “Yifan He From Red Date Technology: How to Understand Blockchain in BSN,” *Medium*, August 18, 2020, <https://medium.com/bsnbase/yifan-he-from-red-date-technology-how-to-understand-blockchain-in-bsn-83cee1c131e3>.

Source: Nikkei Asian Review

|                                          | BSN-China Portal                                                                   | BSN-International Portal                                                                                        |
|------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Users                                    | Chinese residents                                                                  | Foreigners                                                                                                      |
| Launch date                              | April 2020                                                                         | August 2020                                                                                                     |
| “Permissioned” vs. “Permissionless”      | Permissioned                                                                       | Permissionless                                                                                                  |
| Companies/Organizations involved         | Red Date Technology, China State Information Center, China Mobile, China Union Pay | Public blockchain partners: Tezos, NEO, Nervos, IRISnet, Ethereum, EOS, Algorand, Polkadot, Cosmos, Huobi Chain |
| Platform (for inter-chain communication) | Irisnet’s Inter-Realm Industry Trust Alliance (IRITA) framework                    |                                                                                                                 |

\*Permissioned blockchains need prior approval to access the system (i.e. closed and private) while permissionless blockchains are fully open to all (i.e. public).

Source: Various media reports

Figure 29. BATJ — Internet Finance Product Offerings

|                            | Baidu                                 | Alibaba                                                                         | Tencent                                                         | JD.com                                        |
|----------------------------|---------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------|
| Internet payment           | Baidu Wallet (2014)                   | Alipay (2004)                                                                   | Tenpay (2005)<br>Weixin pay (2014)<br>WeChat / QQ Wallet (2014) | JD Payment (2012)<br>JD Wallet (2012)         |
| Internet wealth management | Baidu Finance (2013)<br>Bai Fa (2013) | Yuebao, Taobao lica (2013)<br>ZhaoCaibao, Yu'e Bao (2014)<br>Ant Fortune (2015) | Licaitong (2014)                                                | JD XiaoJinKu (2014)<br>XiaoBai Finance (2014) |
| Internet insurance         | Bai An Insurance (2015)               | Zhongan (2013)                                                                  | Zhongan (2013)                                                  | JD Insurance (2014)                           |
| Online lending             | Baidu loan (2013)                     | E Dairong with CCB (2007)<br>Ali micro loan (2010)<br>Jie Bei (2015)            | Tenpay microloan (2013)<br>QQ loan (2015)                       | JingBaoBei (2013)<br>JingXiaoDai (2013)       |
| Consumer financing         | Umoney (2014)                         | Tmall instalment (2014)<br>Ant check later (2014)                               | Weilidai (2015)                                                 | JD BaiTiao (2014)                             |
| Crowdfunding               | Baidu Baizhong (2014)                 | iZhongchou (2013, renamed from Taoxinyuan in 2014)                              | QQ Gongyi (2014)                                                | JD Crowdfunding (2014)                        |
| Digital-only Bank          | Baixin Bank (2015)                    | MYbank (2015)                                                                   | WeBank (2015)                                                   | —                                             |
| Credit scoring             | —                                     | Sesame Credit (2015)                                                            | Tencent Xinyong (2015)                                          | Xiaobai Xinyong (2015)                        |

Source: Citi Research

Source: Citi Research<sup>48</sup>

<sup>48</sup> Ronit Ghose, Kaiwan Master, et al., “Bank of the Future: The ABCs of Digital Disruption in Finance,” Citi GPS: Global Perspectives & Solutions, March 2018, <https://ir.citi.com/CiDxU7p7pAittTmqzfMCS9%2F9IIS21vIjJXbn3wjpSEYiTXJ8FvEPRWx8WmmrKNgBSzDi8E2mGOI%3D>.

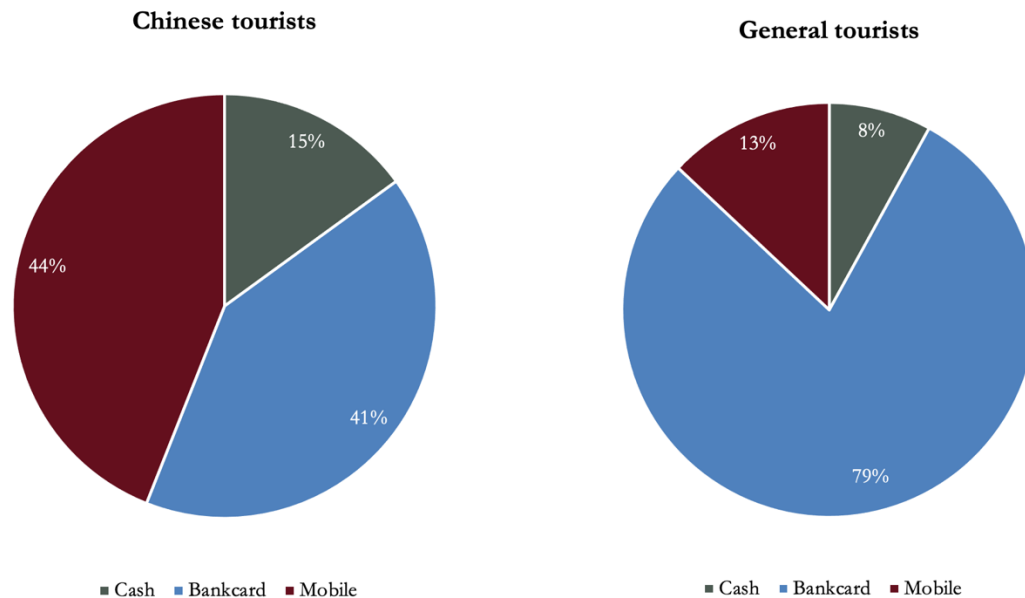
## CHAPTER TWO – GOING OUT 2.0

### i. *Strategies for Chinese fintech globalization*

*“If you have a network of partners that are all on the same technology stack, interoperability is not a problem. In the future, someone who uses the Philippines version of Alipay could come to Hong Kong and shop at any store that accepts Alipay. That’s the vision.” —Cofounder of Alibaba Group, Joseph Tsai<sup>49</sup>*

While Chinese tech firms dominate the mainland market, they have yet to make significant headway in foreign markets. Ant and Tencent have made most of their global gains in generating foreign merchant uptake and securing minority stake investments in foreign tech start-ups or “unicorns”. Ant and Tencent’s primary motivations and strategies for fintech globalization center around two missions. The first is to create a global network of interoperability between Chinese and foreign digital payments or “e-wallets.” The second is to invest in and support current and future fintech leaders around the world.

Payment method used most often by Chinese vs. general tourists overseas in 2019, %



*Source: Business Insider Intelligence*

<sup>49</sup> “What the Largest Global Fintech Can Teach Us About What’s Next in Financial Services,” *CB Insights*, October 4, 2018, <https://www.cbinsights.com/research/ant-financial-alipay-fintech/>

### *a. Generating global e-wallet interoperability*

The first stage of e-wallet interoperability was supported by the demand generated from Chinese outbound tourism and via partnerships with foreign merchants and retailers. Chinese tourists have outspent their global peers since 2012 and are frequently the largest source of tourism for most of the world's countries. According to the United Nations World Tourism Organization, Chinese tourists were responsible for a fifth of the world's total spending on tourism, generating the greatest spending (at \$277BN)—almost double the next largest source, the U.S. (\$144BN).<sup>50</sup> Chinese tourists' overwhelming preference for mobile payment methods driven by their easy cashless alternatives at home has encouraged foreign countries and their merchants to speedily accept Alipay, WeChat Pay, and UnionPay QuickPass' QR-based payment methods.<sup>51</sup> Alipay is now used in at least 56 markets and accepts 18 currencies while WeChat Pay covers 49 countries and regions and 17 currencies.<sup>52</sup>

These partnerships have also extended to foreign banks and payment providers, including fintech start-ups. Alipay had the first-mover advantage in the internationalization of its payment platform, beginning around 2016 to partner with foreign banks and payment providers to use their payment rails in support of transactions between Chinese consumers and foreign merchants. In South Korea, Tencent established a partnership with Woori Bank in 2015 to service WeChat Pay through the bank's domestic fund settlement. South Korea's QR-based ZeroPay has also recently agreed to service both Alipay and WeChat Pay, using an e-wallet QR-based system.<sup>53</sup> In Japan, Tencent partnered with Japan's Line Pay to link up their cashless payments systems. In South Africa, WeChat Pay collaborated with Standard Bank to allow customers to withdraw WeChat Pay cash from ATMs. Both Ant and Tencent have formed partnerships with Kenyan fintech giant M-Pesa to enable payments across their platforms.<sup>54</sup> In 2019, Alipay began partnerships with six European digital wallet providers to unify QR code payment in 10 countries in Europe, further promoting the use of QR codes rather than bank payment rails in Europe. In 2020, Alipay announced a partnership with London-based TransferWise, an international money transfer platform with 7 million users, to facilitate international transfers and remittances.<sup>55</sup>

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<sup>50</sup> Niall McCarthy, "The Tourists Splashing The Most Cash," *Statista*, August 29, 2019, <https://www.statista.com/chart/15588/international-tourism-expenditure-in-2017/>.

<sup>51</sup> UnionPay is a state-owned financial company that dominates card payments.

<sup>52</sup> Eric Jing, "Ant Financial – A Global Leading TechFin Company," Alibaba Investor Day 2019, September 24, 2019, [https://www.alibabagroup.com/en/ir/presentations/Investor\\_Day\\_2019\\_AntFinancial.pdf](https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2019_AntFinancial.pdf).

<sup>53</sup> Sung Suk-ye, "Woori Bank Partners Tencent Provide Fund Settlement Service, Targeting Chinese Tourists," *BusinessKorea*, November 26, 2015, <http://www.businesskorea.co.kr/news/articleView.html?idxno=13116>.

<sup>54</sup> "China-Kenya Fintech Collaboration Blossoms Amid High Mobile Phone Penetration, *Xinhua*, August 31, 2020, [http://www.xinhuanet.com/english/africa/2020-08/31/c\\_139329676.htm](http://www.xinhuanet.com/english/africa/2020-08/31/c_139329676.htm).

<sup>55</sup> Steve O'Hear, "TransferWise Partners with Alipay for International Money Transfers, *Techcrunch*, March 16, 2020, <https://techcrunch.com/2020/03/16/transferwise-partners-with-alipay/>.

## Travelling in Europe with Mobile Phones

Bluecode, ePassi, Momo Pocket, Pagaqui, Pivo, Vipps and Alipay join hands to promote mobile payment interoperability for travelers in Europe and from China.

**Total European merchants: 190,000**

**Total European users: more than 5 million**

■ Countries covered by the same QR code format

● Where are the wallets from

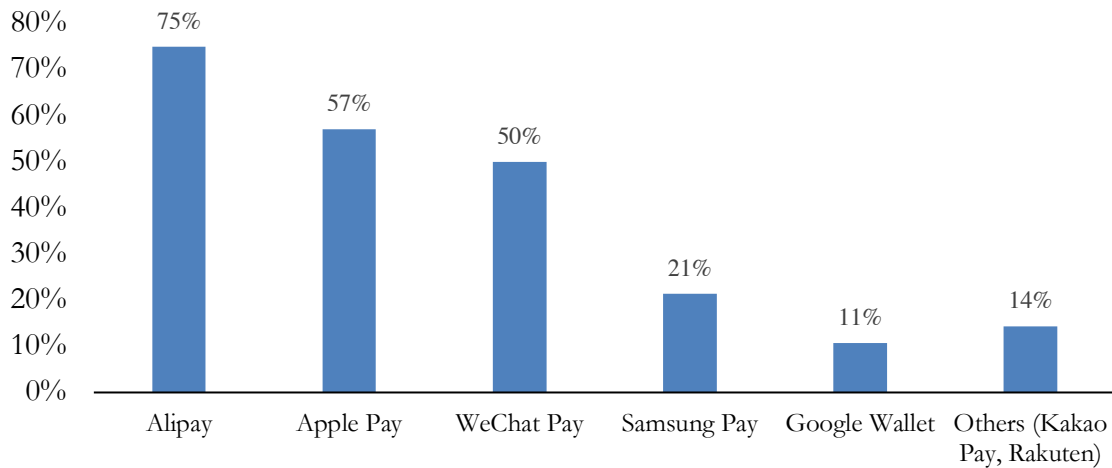
- |               |           |
|---------------|-----------|
| 1 ePassi pivo | 4 PAGA UI |
| 2 bluecode    | 5 vipps   |
| 3 MOMO        |           |



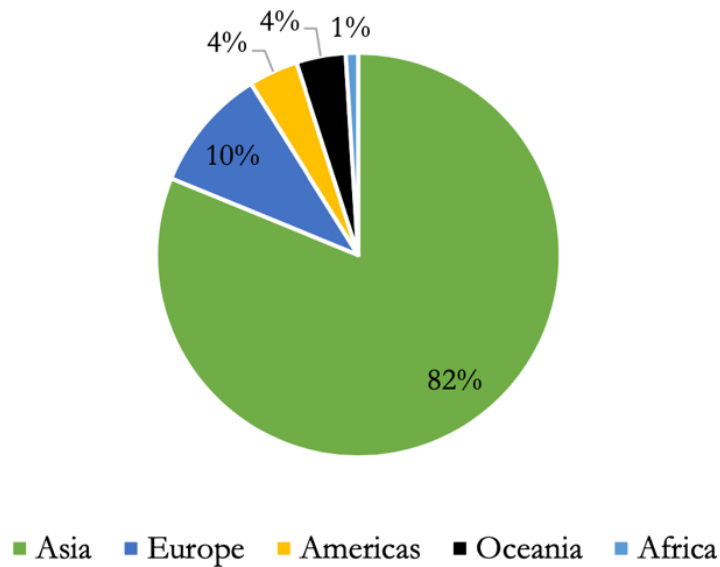
Source: NFCW

## What type of mobile payments do you accept at point of sales? (June 20 survey of PoS)

Source: Statista



## Destinations for Chinese tourists in 1H2019 (Ctrip)

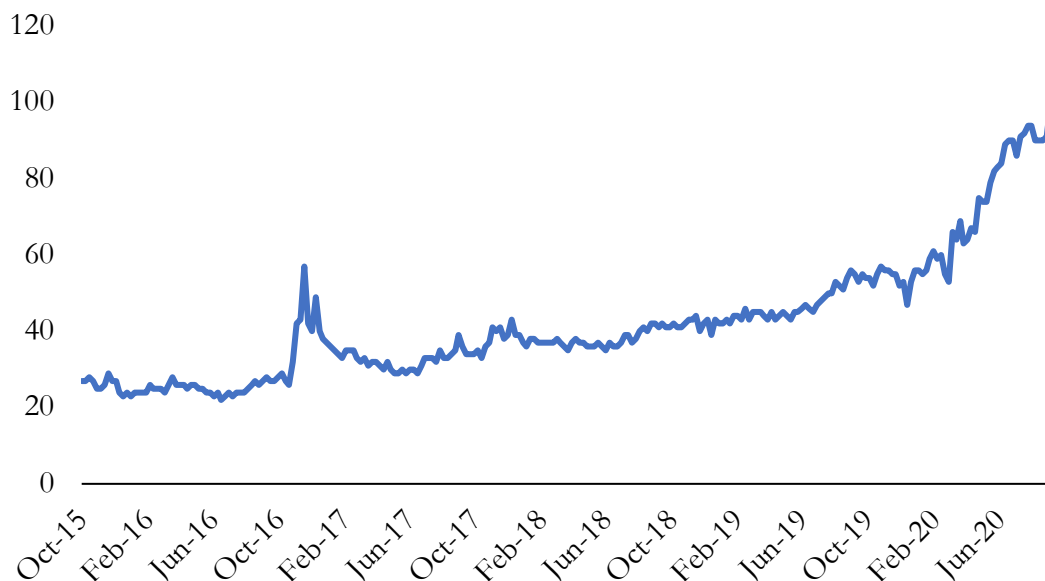


Tencent and Ant's partnerships with foreign banks and credit card companies are also a matter of improving foreign tourists' spending experiences in China and attract them to their platforms. Before 2019, foreigners were unable to foreign bank accounts with Chinese e-wallets as users previously needed a domestic Chinese bank to register for a WeChat Pay or Alipay account. Tencent and Ant both created international wallets in November 2019, allowing foreigners to connect their foreign cards to Alipay and WeChat Pay accounts.<sup>56</sup> From a user experience standpoint, China's mobile-enabled QR-based system is powerful and far more convenient than the traditional bank-based payment rails (e.g. Visa and Mastercard). The global rise and proliferation of QR codes, especially in emerging markets, is a testament to this fact.

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<sup>56</sup> Miguel Cordon, "Tencent Opens Up WeChat Pay To Foreign Visitors," *TechInAsia*, November 7, 2019, <https://www.techinasia.com/tencent-opens-wechat-pay-foreign-visitors>.

### Google Trends search for “QR code”



Source: Google

Though foreign merchants may have been quick to onboard Chinese payment methods to capture Chinese outbound demand, foreign consumers have been slow or reluctant to take up Chinese payment methods. As fintech expert and Peterson Institute for International Economics (PIIE) senior fellow Martin Chorzempa points out, payments are a “two-sided market in which consumers and merchants both must be signed up to use a new payment method if it is to catch on. So far, Alipay and WeChat Pay have only succeeded on one side abroad: merchant acceptance.”<sup>57</sup>

Of the two, Ant has been the more proactive and aggressive in onboarding foreign merchants and payment providers and seeking to control the payment methods through M&A with local payment providers.<sup>58</sup> Alipay’s strategy has been to supply capital and technological support to up-and-coming fintech companies to replicate Alipay’s success abroad and connect their systems with Alipay’s via a network of “global e-wallets” (e.g. South Korea’s Kakao Pay and Indonesia’s DANA) that now straddle 10 markets. Ant has opted for minority stakes in the nine “glocal e-wallets” it has invested in, with the exception of UK-based money transfer company WorldFirst, which it acquired in 2019.<sup>59</sup> Yet even with this strategy, Ant admits that only 0.5% of its payments were international

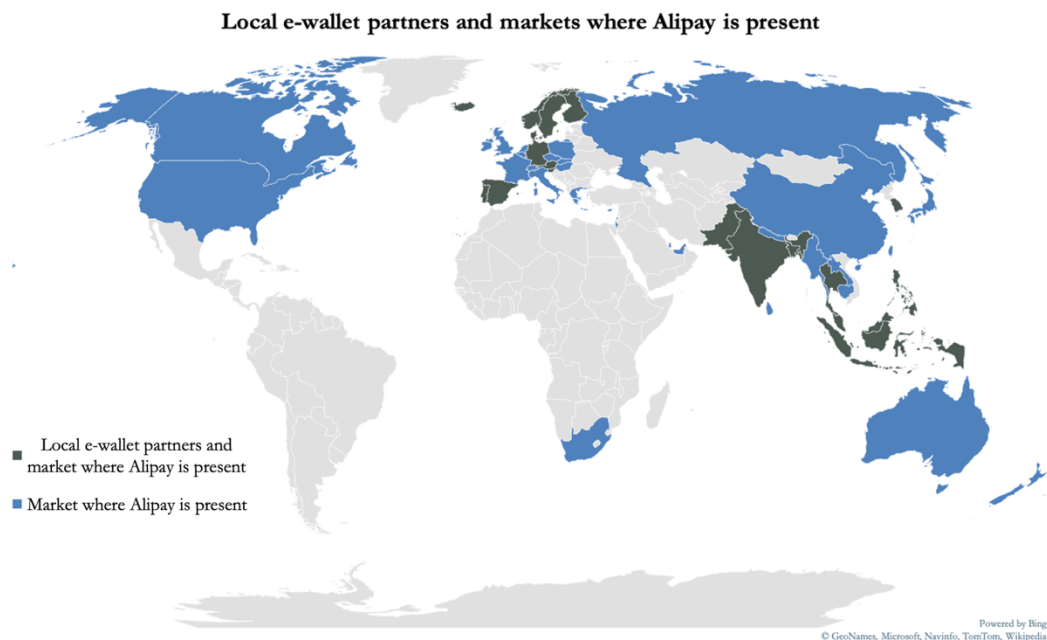
<sup>57</sup> Martin Chorzempa, “Testimony Before the U.S.-China Economic and Security Review Commission,” Panel 4: China’s Pursuit of Leadership in Digital Currency, April 15, 2021, [https://www.uscc.gov/sites/default/files/2021-04/Martin\\_Chorzempa\\_Testimony.pdf](https://www.uscc.gov/sites/default/files/2021-04/Martin_Chorzempa_Testimony.pdf).

<sup>58</sup> Tingyi Chen, “The Cross-border Payment War of WeChat Pay and Alipay,” *WalkTheChat*, February 25, 2019, <https://walkthechat.com/the-cross-border-payment-war-of-wechat-pay-and-alipay/>.

<sup>59</sup> Jon Russell, Rita Liao, Ingrid Lunden, “Alibaba’s Ant Financial Buys UK Currency Exchange Giant WorldFirst Reportedly For Around \$700M,” *Techcrunch*, February 13, 2019, <https://techcrunch.com/2019/02/14/alibabas-ant-financial-buys-worldfirst/>.

from June 2019 to June 2020.<sup>60</sup> A plan initiated in 2019 to connect these “glocal e-wallets” in an interoperable global network was shelved in late 2020 as the company faced more pressure from domestic and foreign regulators. The original plan was to make the partnering “glocal e-wallets,” such as India’s Paytm and the Philippines’ GCash, operable outside of their local markets and in countries covered by Ant’s merchant and payment partnerships. The threat of more regulatory headwinds in China and abroad, not to mention increasing global skepticism toward China, have forced a strategic rethink both at Tencent and Ant regarding the volume and pace of their foreign business ventures and investments.<sup>61</sup>

Tencent, by contrast, prefers to interact with foreign merchants by collaborating in a more hands-off approach with local payment providers.<sup>62</sup> Where Alipay seeks to find market opportunities with local partners, Tencent has tended to follow the direction of Chinese tourism flows and demand. Nevertheless, WeChat Pay has been more aggressive than Alipay about capturing foreign users through its WeChat e-wallets. Its attempts to dive into the Indian market through the WeChat social network app failed with regulatory crackdowns starting in 2018. Similarly, its e-wallet in South Africa, launched in 2015, was forced to shut down in June 2020, doubtless due to regulatory pressures.<sup>63</sup>



*Source: Various government and media reports*

<sup>60</sup> “Ant Group IPO prospectus,” Ant Group, 2020, <https://web.archive.org/web/20201101110153/https://www1.hkexnews.hk/app/sehk/2020/102484/documents/sehk20082500535.pdf>

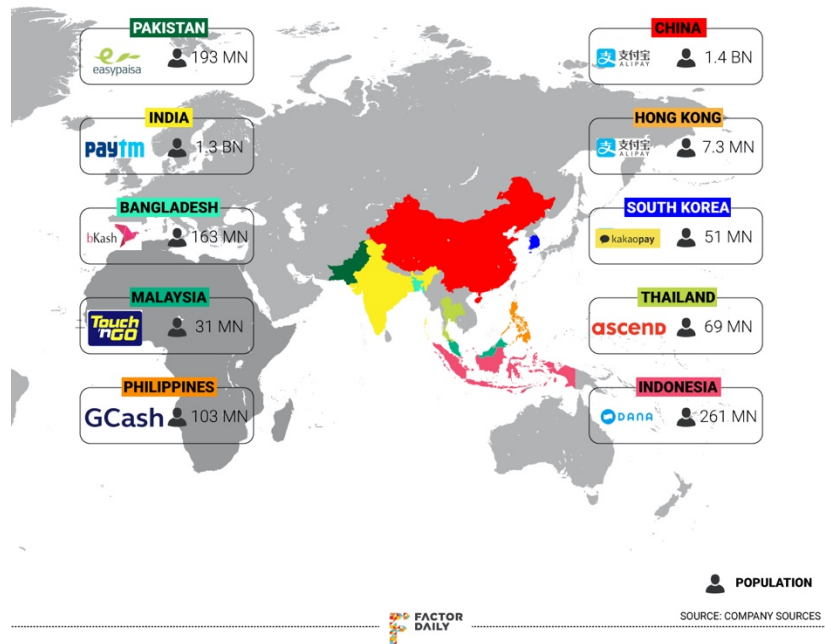
<sup>61</sup> Fanny Potkin, “Ant Group Curbs Support for Overseas Partners in Strategy Rethink Ahead of Listing,” *Nasdaq*, October 28, 2020, <https://www.nasdaq.com/articles/insight-ant-group-curbs-support-for-overseas-partners-in-strategy-rethink-ahead-of-listing>.

<sup>62</sup> Tingyi Chen, “The Cross-border Payment War of WeChat Pay and Alipay,” *WalkTheChat*, February 25, 2019, <https://walkthechat.com/the-cross-border-payment-war-of-wechat-pay-and-alipay/>.

<sup>63</sup> [https://www.myvirgo.co.za/read-blog/340\\_wechat-wallet-in-south-africa-shuts-down.html](https://www.myvirgo.co.za/read-blog/340_wechat-wallet-in-south-africa-shuts-down.html)

### DEVELOPMENT OF GLOCAL E-WALLETS

Ant Financial's local e-Wallets cover many of the world's largest markets and fastest growing economies



Source: Various government and media reports

#### *b. Strategic investments in the global fintech future*

From the outset, Alibaba and Tencent have had differing approaches to foreign investment. While both companies have poured investments into emerging markets (EMs), Alibaba's focus has been on investing larger sums or controlling stakes in a relatively small select number of firms in the fintech, e-commerce and supply chain sectors (e.g. Singaporean e-commerce platform Lazada). Tencent, by contrast, has chosen to invest smaller individual stakes in a wider range of companies (e.g. U.S. gaming firm Activision Blizzard) that specialize in Tencent's core business strengths: online media, content creation, and gaming. As a whole, Tencent has been the more active company in foreign M&A activity, viewing and styling itself as the "Softbank of China" in terms of the ambitious scope of its overseas investments—though it is also noted for its more hands-off approach to the companies it invests in.<sup>64</sup> To date, Tencent has [invested](https://qz.com/1279190/tencent-the-softbank-of-china-has-invested-tens-of-billions-globally-since-2015/) in 800

<sup>64</sup> Interview with Martin Lau, Tencent Binhai Tower, November 19, 2019. Josh Horwitz, "The "Softbank of China" Has Quietly Invested Tens of Billions Globally Since 2015," *Quartz*, May 17, 2018, <https://qz.com/1279190/tencent-the-softbank-of-china-has-invested-tens-of-billions-globally-since-2015/>.

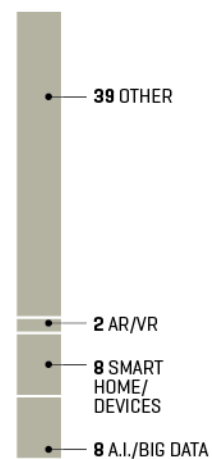
companies, including 160 unicorns and 70 listed companies. By contrast, Alibaba has [invested](#) in 312 companies, gone through 676 funding rounds, and made 50 exits.

## AN ARMS RACE IN SHOPPING TECH

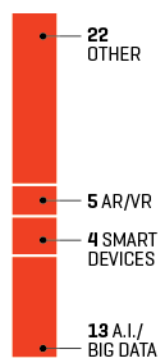
Alibaba and Tencent have made dozens of investments in smaller tech and retail players—with many focused on A.I., virtual reality, and other tech that can enhance shopping. The goal: to dominate both off-line and online retail for China's fast-growing middle class.

### BREAKDOWN OF NEW TECH DEALS, JAN. 2008–MAY 2018

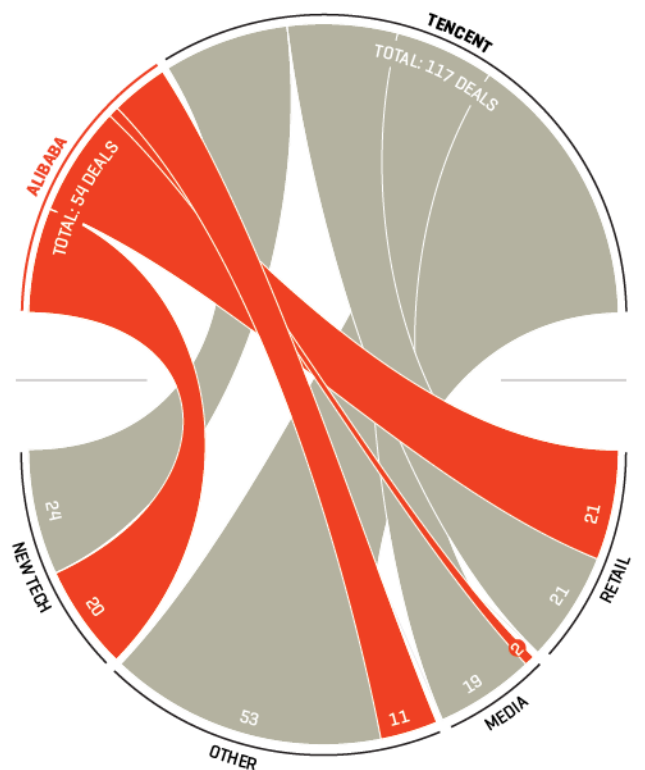
#### TENCENT TOTAL: 57



#### ALIBABA TOTAL: 44



### M&A AND INVESTMENT ACTIVITY SINCE JAN. 1, 2017

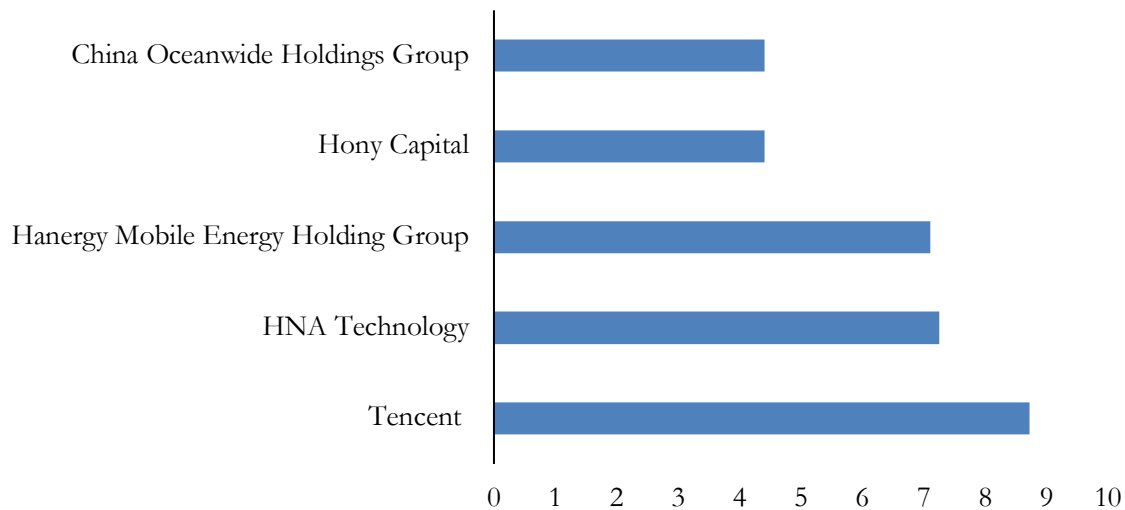


SOURCE: AB BERNSTEIN

Source: AB Bernstein<sup>65</sup>

<sup>65</sup> Adam Lashinsky, "Alibaba v. Tencent: The Battle for Supremacy in China," *Yahoo*, June 21, 2018, <https://www.yahoo.com/entertainment/alibaba-v-tencent-battle-supremacy-083053872.html>.

TOP CHINESE OUTBOUND M&A SPENDERS, \$BN, AS OF SEPTEMBER 2020 (*S&P GLOBAL*)



ii. *Beijing’s “Digital Silk Road”: State backing or impediment?*

The Chinese government’s Belt and Road Initiative (BRI) (一带一路), launched in 2013, is a state-led infrastructure and investment plan designed to expand Beijing’s global influence and sway through trade, development, and financing. Originally conceived of as a way to ‘win friends and influence people’ around the world through massive loans and exports of China’s “excess capacity” in steel and construction, Beijing has begun to pivot from this capital-intensive infrastructure-heavy model. Growing criticism of BRI as a “debt trap” has forced Beijing to turn to a greener, more high-tech approach.<sup>66</sup>

Influenced more recently by President Xi Jinping’s “[dual circulation](#)” model of stoking domestic demand and upgrading technology, Chinese officials are moving away from infrastructure-heavy lending and development to focus on health (i.e. Health Silk Road), green technology (Green Silk Road), and consumer and digital services (Digital Silk Road), raising the profiles of these offshoots that were formed over the past few years.

Launched in 2016, The Digital Silk Road serves to leverage the innovations and capital of China’s private and state-owned tech firms. The tech focus reflects developments on the ground in the mainland. China now accounts for 23% of global cross-border data flows, almost double the U.S. share.<sup>67</sup> The digital turn also chimes with the Chinese Communist Party’s focus on data as a new input for production (joining land, labour and

<sup>66</sup> Dylan Gerstel, “It’s a (Debt) Trap! Managing China-IMF Cooperation Across the Belt and Road,” *CSIS*, October 17, 2018, <https://www.csis.org/analysis/new-perspectives-foreign-policy-issue-16-2018>.

<sup>67</sup> Toru Tsunashima, “China Rises as World’s Data Superpower As Internet Fractures,” *Nikkei Asia Review*, November 24, 2020, <https://asia.nikkei.com/Spotlight/Century-of-Data/China-rises-as-world-s-data-superpower-as-internet-fractures>.

capital) as well as its concerted goal to become a global “cyber superpower.”<sup>68</sup> Chinese tech firms such as Alibaba, Tencent and Huawei are already exporting “smart city technologies” and offering integrated city or “country-as-a-platform” solutions, which detractors label as China’s “techno-authoritarian toolkit.”<sup>69</sup>

This new digital iteration of BRI could accelerate the reach of China’s private tech firms by offering them state imprimatur or support for their “going out”. From the vantage point of China’s private fintech companies, the Digital Silk Road offers distinct opportunities and challenges to their global expansion. Their role in building out the world’s digital and financial infrastructure or plumbing, especially in the developing world, cannot be overstated.<sup>70</sup> China’s tech model is already serving as a blueprint for emerging market economies across Asia, Latin America and Africa—led by Chinese and foreign entrepreneurs alike.<sup>71</sup> In many respects, China’s fintech miracle story, birthed and displayed in cities like Hangzhou and Shenzhen, is more relevant and applicable to meeting the needs of EMs than Silicon Valley’s model. This fact is being reflected by the increasing number of foreign start-ups and venture capitalists flying into Hangzhou and Shenzhen to learn from the China tech model. As one Alibaba executive put it: “Silicon Valley creates world-class solutions for first-world problems. Alibaba creates world-class solutions for third-world problems.”<sup>72</sup> According to seasoned venture capitalist Hans Tung: “it’s very difficult for an emerging market just to copy a model from the US and try to localize it because the stage of development is different for different countries. China spent the first 10 years copying models from the US, but they had to do so much more customization and innovation to make it work for emerging markets...[I] feel that Chinese consumers have trained Chinese founders and companies to be able to deal with other emerging markets better as well.”

The longer horizon pay-offs of helping to develop digital and financial infrastructure in developing markets may be even more significant for Chinese fintech firms. As the China fintech model shows, the creation of a financial lattice or ecosystem, powered by mobile payments, can have an outsized bearing on future market opportunities for local and foreign players: spurring a panoply of new services, products, and business opportunities, thereby increasing the pie for all.

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<sup>68</sup> “中共中央 国务院关于构建更加完善的要素市场化配置体制机制的意见,” 新华社, April 9, 2020, [http://www.gov.cn/zhengce/2020-04/09/content\\_5500622.htm](http://www.gov.cn/zhengce/2020-04/09/content_5500622.htm).

Elsa Kania, Sam Sacks, Paul Triolo and Graham Webster, “China’s Strategic Thinking on Building Power in Cyberspace,” *NewAmerica*, September 25, 2017, <https://www.newamerica.org/cybersecurity-initiative/blog/chinas-strategic-thinking-building-power-cyberspace/>.

<sup>69</sup> Sangeet Paul Choudary, “China’s country-as-platform strategy for global influence,” *Brookings Institute*, November 19, 2020, <https://www.brookings.edu/techstream/chinas-country-as-platform-strategy-for-global-influence/>. Alina Polyakova and Chris Meserole, “Exporting digital authoritarianism,” *Brookings Institute*, August 2019, [https://www.brookings.edu/wp-content/uploads/2019/08/FP\\_20190826\\_digital\\_authoritarianism\\_polyakova\\_meserole.pdf](https://www.brookings.edu/wp-content/uploads/2019/08/FP_20190826_digital_authoritarianism_polyakova_meserole.pdf).

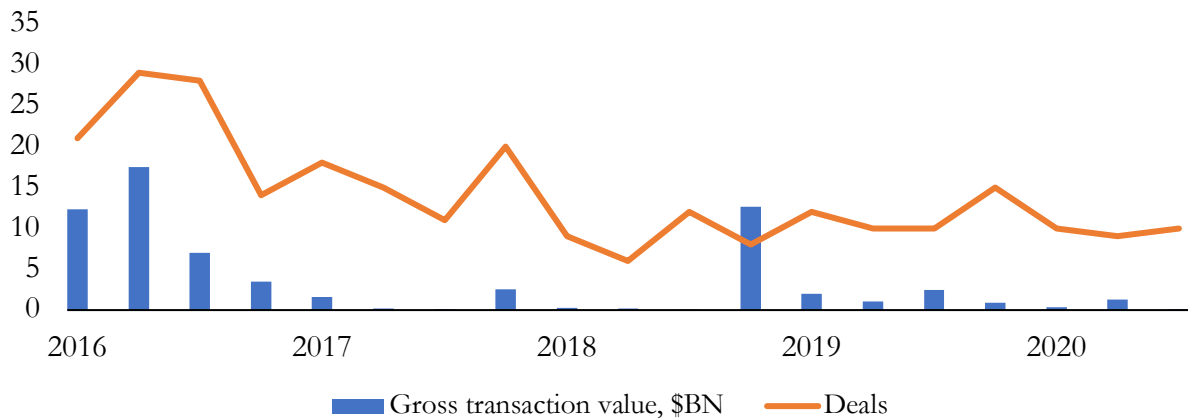
<sup>70</sup> Meeting with Brian Wong, Hangzhou, January 12, 2018.

<sup>71</sup> Hans Tung and Zara Zhang, “Chuhai: Why Chinese Entrepreneurs are Targeting Emerging Markets Across the World,” 996 Podcast, January 28, 2019, <https://www.linkedin.com/pulse/chuhai-why-chinese-entrepreneurs-targeting-emerging-markets-hans-tung>.

<sup>72</sup> Meeting with Brian Wong, Hangzhou, January 12, 2018.

As Chinese tech firms face more regulation and competition at home, the top tech firms and China-based VCs may increase their risk appetite for outbound M&A in 2021 and beyond—but not without meeting increasing headwinds in the form of global regulation, competition, localization, and skepticism towards China and the model it tries, at times, to export.

CHINA OUTBOUND M&A IN TECH, MEDIA & TELECOMS, TRANSACTION VALUE AND DEALS (*S&P GLOBAL*)



### CHAPTER THREE: CHALLENGES AHEAD

*China's fintech success has been impressive, but it remains mostly a domestic affair. Its fintech giants Ant Group and Tencent have achieved enormous valuations, but their attempts to gain users internationally other than Chinese tourists abroad have so far made little inroads, and national security concerns in jurisdictions around the world mean that this is not likely to change anytime soon.—PIIE Senior Fellow Martin Chorzempa<sup>73</sup>*

#### *i. Domestic regulation: Beijing's tech rectification campaign*

In the early stage of China's fintech development (c. 2004-2016), the Chinese government employed a broadly laissez-faire wait-and-see approach towards the nascent industry. As Chorzempa notes, the first regulations and licenses were only introduced in 2010 and 2011, sparked by financial scandals and illegal activity.<sup>74</sup> From 2013 to 2016, under the guardianship of the more reform-minded former People's Bank of China (PBoC) governor, Zhou Xiaochuan, the fintech industry was generally allowed to bloom with little constraint. Governor Zhou's belief at the time was that Ant and Tencent's financial innovations could help inject "competition" that would "improve the development of traditional industries, adapt them to new situations and stimulate them, thereby helping them keep up with technology. Through this competition, the final result is that competition will bring about better products and better services. That is, the entire financial industry will bring better products and services to the real economy and to consumers."<sup>75</sup> Fintech companies seemed to offer solutions to some of the long-standing problems in China's state-dominated financial system: financial repression, low levels of efficiency and innovation, and a lack of access to credit for SMBs and rural consumers. Governor Zhou's view was also that regulators needed to "learn" and "update rules and regulations." Regulators during this period were also reluctant to regulate an industry that they were still striving to understand and learn from.<sup>76</sup> The Chinese government has historically demonstrated an understanding that private firms are indeed critical to driving much-needed productivity and innovation (e.g. the dual-track price system of the 1980s, the rise of the internet in the 1990s and fintech and social media in the 2000s).

This regulatory grey zone approach ended around 2016 when the risk of financial bubbles created by online P2P lending and untamed speculation forced the hand of regulators to try to contain the financial risks. The 2015-16 stock market turbulence panicked regulators and drove them to take more decisive measures. From 2016 to 2020, regulators have tried to take back more control from the increasingly powerful fintech players—and also leverage their strengths to increase government oversight. In 2017, regulators

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<sup>73</sup> Martin Chorzempa, "Testimony Before the U.S.-China Economic and Security Review Commission," Panel 4: China's Pursuit of Leadership in Digital Currency, April 15, 2021, [https://www.uscc.gov/sites/default/files/2021-04/Martin\\_Chorzempa\\_Testimony.pdf](https://www.uscc.gov/sites/default/files/2021-04/Martin_Chorzempa_Testimony.pdf).

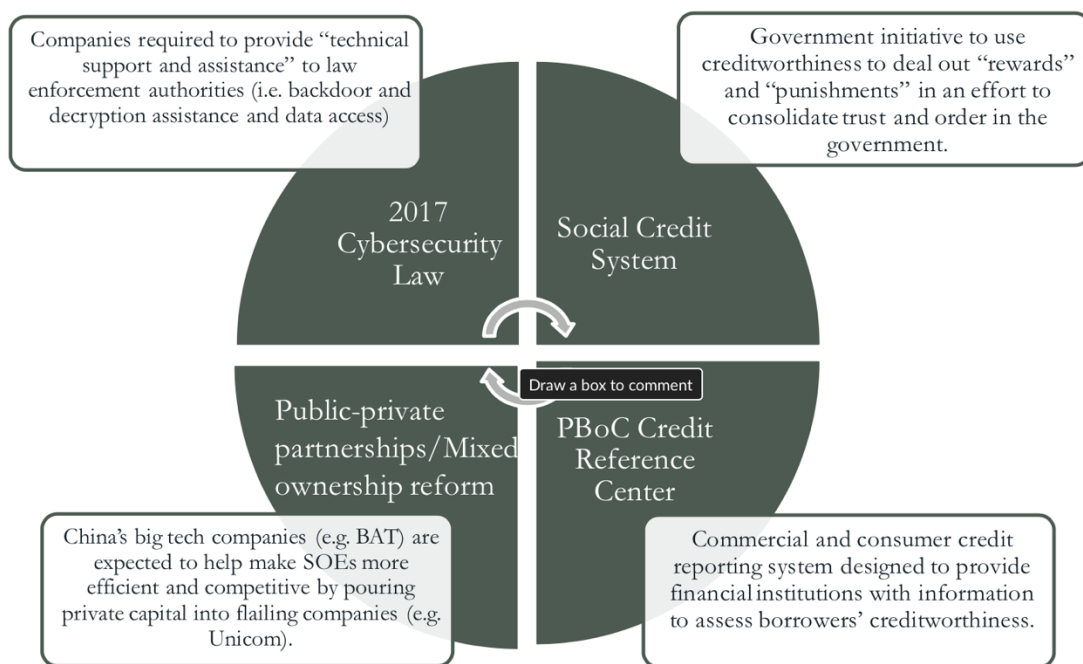
<sup>74</sup> Ibid.

<sup>75</sup> "周小川：对科技促进金融业持支持态度，" 新华网, March 13, 2013, [http://www.xinhuanet.com//2013lh/2013-03/13/c\\_124455019.htm](http://www.xinhuanet.com//2013lh/2013-03/13/c_124455019.htm).

<sup>76</sup> Ibid.

announced that all of Tencent and Ant’s transactions would have to be cleared through the PBoC’s clearing house, giving the central bank access to their transaction data.<sup>77</sup> In 2019, the PBoC announced a three-year plan to design a unified nation-wide QR code system that would enable interoperability across different e-wallets run by different institutions (i.e. banks and other fintech players). This would further erode the Tencent-Ant duopoly. More recently, regulators are pressuring Ant and Tencent to increase data-sharing—in both volume and frequency—with the PBoC Credit Reference Center. Ant and Tencent currently submit condensed records of their clients’ lending data to the PBoC’s credit information database on a monthly basis. The direction of travel will doubtless be to share more lending data and more frequently.<sup>78</sup>

### Recent Chinese government policies to co-opt private tech firms



Over the past few months, Chinese regulators have further advanced to rein in Chinese tech companies, issuing new sweeping anti-monopoly laws and financial crackdowns. The key issues cited by regulators are tech giants’ anti-competitive behavior (i.e. the “pick one from two” model and their M&A record), improper pricing, and the “inappropriate collection and control of data” by “leading internet platforms that have abused their market monopoly.”<sup>79</sup> This new approach reflects regulators’ concerns that the power of data—through largely closed-loop data ecosystems—have allowed Alibaba, Tencent, and other tech platforms to become incalculably and dangerously rich and

<sup>77</sup> “China’s Central Bank Orders New Clearing House for Online Payment Groups,” *PYMNTS*, August 10, 2017, <https://www.pymnts.com/news/international/2017/ant-financial-tencent-to-bow-to-pboc-clearing-house-order/>.

<sup>78</sup> Sun Yu, “Jack Ma’s Ant Defies Pressure from Beijing to Share More Customer Data,” *FT*, March 1, 2021, <https://www.ft.com/content/1651bc67-4112-4ce5-bf7a-d4ad7039e7c7>.

<sup>79</sup> Ibid

powerful. It also reflects the party's view that data are "public goods" that should not be singularly owned by Tencent and Alibaba. The government is not alone in castigating these tech incumbents. The public backlash against China's monopolistic tech firms over the past few years has also been noteworthy.<sup>80</sup>

In the government's most recent 14<sup>th</sup> Five Year Plan (2021-25), Beijing called for tighter regulations on internet tech platforms, particularly in fintech, telemedicine, autonomous vehicles and smart logistics. Beijing also urged commercial banks to increase lending to small and medium-sized enterprises (SMEs) by 30% yoy to substitute for lending from China's private fintech platforms such as Ant's Alipay. New rules effective in January 2022 will seriously cut Alipay's lending platforms as it effectively mandates that Chinese commercial banks must limit their joint lending with fintech platforms to less than half of its total loans. Banks' joint lending with a single fintech platform must be under 25% of its core capital. Beyond co-lending caps, regulators are also limiting so-called "loan facilitation," which allows internet credit platforms to sell borrowers' risk profile assessment and management services to banks.<sup>81</sup>

Thus far, the focus of regulatory fire has been squarely on Ant due to the latter's dominance and influence in the lending sector. Last November, Chinese regulators suspended Ant Group's much-anticipated IPO. On April 10, the State Administration of Market Supervision (SAMR), China's super-regulator for antitrust regulation and enforcement, issued a \$2.8BN fine on Alibaba—equivalent to 4% of Alibaba's 2019 revenue.<sup>82</sup> Alibaba's "pick one of two" model of forcing merchants to exclusively use its platform was heavily criticized by SAMR regulators. On April 12, the People's Bank of China (PBoC), in coordination with the China Banking Regulatory Commission (CBRC), China Securities Regulatory Commission (CSRC), and the State Administration of Foreign Exchange (SAFE), announced five more requirements for Ant Group's future restructuring as a financial holding company.<sup>83</sup>

- a. Ant must cut off all links between its payment platform, Alipay, and its loan and credit card businesses, Huabei (online credit card for consumer loans) and Jiebei (online micro-lending platform). This means Huabei and Jiebei will become separate entities and will have to re-apply for financial licenses.

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<sup>80</sup> Grady McGregor and Naomi Xu Elegant, "China's Consumers Are Turning Against the Homegrown Big Tech Giants They Once Revered," *Fortune*, January 15, 2021, <https://fortune.com/2021/01/15/china-big-tech-backlash-techlash-jack-ma-alibaba/>.

<sup>81</sup> <https://www.bloomberg.com/news/articles/2021-02-20/china-imposes-further-caps-on-online-lending-amid-clampdown?sref=ojq9DljU>

<sup>82</sup> According to article 47 of China's [Anti-Monopoly Law](#), regulators can fine platform companies between 1%-10% of their previous year's sales if they abuse their market position. In an [op-ed](#) in the state-run *People's Daily*, regulators are trying to [reassure](#) the markets that the fine on Alibaba should not be seen as a "change" in the Chinese government's attitude "to support the development of the platform economy," but rather an example of "tough love."

<sup>83</sup> [http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4229432/index.html?mc\\_cid=c3d24d78e8&mc\\_eid=c359a66fde](http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4229432/index.html?mc_cid=c3d24d78e8&mc_eid=c359a66fde)

- b. Ant is prohibited from collecting more than the legal threshold of consumer data (subject to the new data requirements outlined by the Cyberspace Administration of China).<sup>84</sup>
- c. Ant, including all its products and services, must fully establish itself as a financial holding company
- d. Ant must reduce the leverage of its credit, insurance and wealth management businesses.
- e. Ant must reduce the size of its money market fund, Yu'e Bao.

Other tech companies have certainly not been spared regulatory ire. In April 2021, Chinese regulators ordered 34 internet companies, including Tencent, Meituan, Bytedance, Baidu, and JD.com, to “heed Alibaba’s example” and address their anti-competitive behavior within the next month.<sup>85</sup> They also summoned Chinese tech companies to order them to restructure their financial spin-offs into separate financial holding companies and cut so-called “improper links” between their payment and financial services (e.g. loans).<sup>86</sup> In contrast with the 2013-16 period, in which regulators were remarkably laxer on fintech companies than traditional state-owned banks, they are now making a *volte face*, treating fintech companies more as traditional banks (with capital requirements and loan caps) and helping to level the playing field for state-owned commercial banks and new fintech entrants. The PBoC has recently acted out of growing concern about traditional banks’ margins and the growing duopoly of the two incumbents (especially as they achieve dominance in big data and fintech analytics).

ii. *E-CNY: Competition or control?*

*“Blockchain technology features decentralization, but decentralization is not a necessity for modernizing the payments system. It even has some drawbacks. Also, while the immutability of blockchain is useful, it is almost impossible to tamper with current systems, especially the account systems of established banks. And there are cases where incorrect transactions need to be modified.”* — Former PBoC chief [Zhou Xiaochuan, Feb. 20](#)

The Chinese government has successfully created a “walled garden” or “firewall” in the internet space to control information flows. More recently, it is adopting a more offensive posture, seeking to use internet technologies to enhance the power of the state. For instance, Chinese officials now use social media platforms to disseminate information, check the pulse of public opinion and even distract them.<sup>87</sup> Over the past few years, China has emphasized the importance of internet technologies to its economic and

<sup>84</sup> [http://www.cac.gov.cn/2021-03/22/c\\_1617990996835955.htm](http://www.cac.gov.cn/2021-03/22/c_1617990996835955.htm)

<sup>85</sup> <https://www.bloomberg.com/news/articles/2021-04-13/china-orders-34-tech-firms-to-curb-excesses-in-antitrust-review?sref=ojq9DljU>

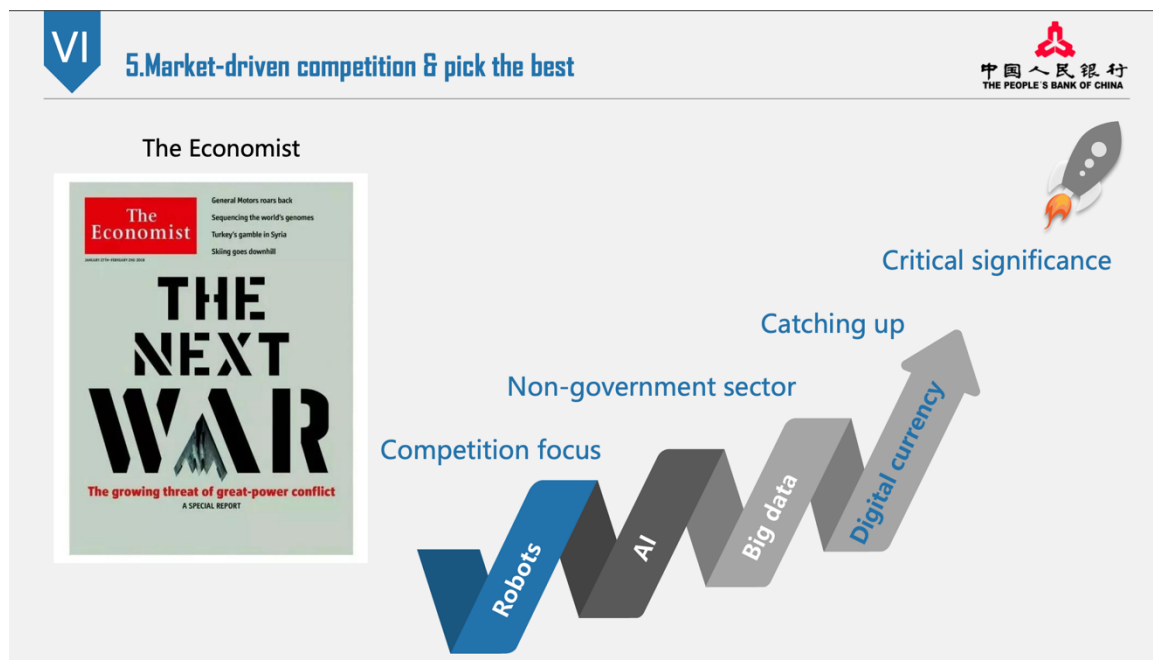
<sup>86</sup> <https://www.ft.com/content/e69d7064-a126-47c4-a57c-58489ba59d0b>

<sup>87</sup> Gary King, Jennifer Pan, and Margaret E. Roberts, “[How the Chinese Government Fabricates Social Media Posts for Strategic Distraction, not Engaged Argument](#),” *American Political Science Review* 111, no. 3 (2017): 484-501.

political success through campaigns such as “Internet Plus,” “Digital Belt and Road,” and “Digital Currency Electronic Payments (DCEP), as well as the new widely-touted moniker of China as a global “cyber-superpower.” Chinese officials’ focus on enhancing China’s capabilities in AI, cloud computing, and blockchain reflect the Chinese Communist Party’s belief that new technologies can be used to enhance state control, solve its economic woes (e.g. stagnating total factor productivity, an ageing population, etc.), and help China develop into a top-tier techno-industrial powerhouse.<sup>88</sup>

In the realm of financial technology itself, Chinese policy-makers believe that the leadership in digital currency will confer a distinct geopolitical advantage.

**Final slide in former PBoC director of the Digital Currency Research Institute Yao Qian’s “[Technical Aspects of CBDC in a Two-Tiered System](#),” Institute of Digital Money, People’s Bank of China, July 2018**

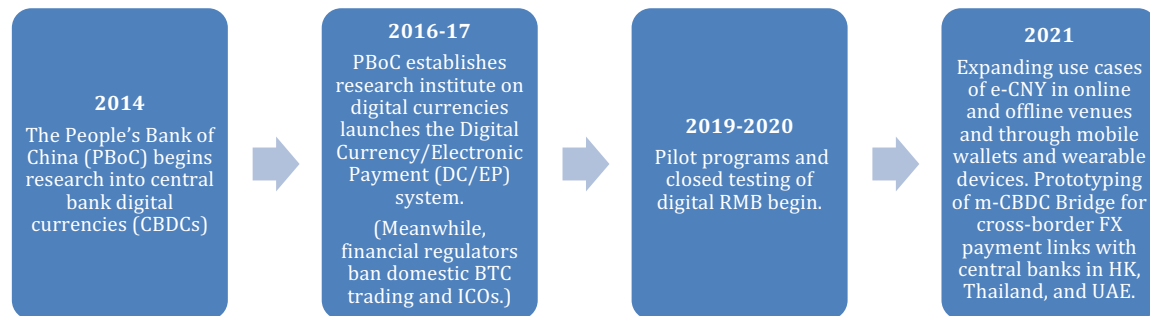


Chinese views on the geo-strategic and -politic importance of finance reflect British historian Niall Ferguson’s work on the relationship between geopolitical power and financial innovation.<sup>89</sup> Ferguson makes the noteworthy argument that financial innovation is a significant dependent variable for global clout and ultimately hegemony. As instantiations of this argument, he charts historical examples such as the rise of Dutch finance in the 17<sup>th</sup> century, the apogee of the British empire built on new innovative financial instruments (such as government bonds and stocks), as well as financial innovation later in the U.S.

<sup>88</sup> Matt Ho, “‘Two Sessions’ 2021: China Is ‘30 Years Off Being a Top-Tier Industrial Powerhouse’”, *SCMP*, March 8, 2021, <https://www.scmp.com/news/china/politics/article/3124583/two-sessions-2021-china-30-years-being-top-tier-industrial>.

<sup>89</sup> Niall Ferguson, *The Ascent of Money*, (London: Penguin Books, October 27, 2009).

### Timeline of PBoC's DC/EP digital yuan project

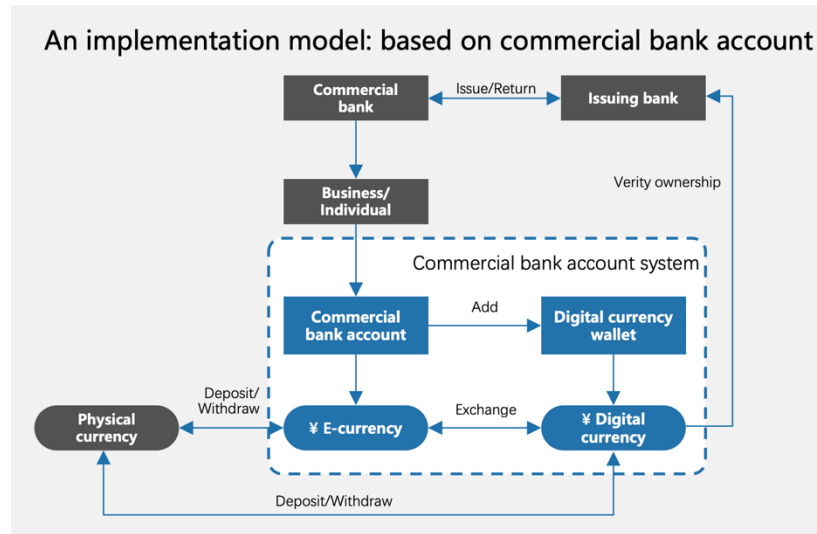


Since 2014, WeChat Pay and Alipay have facilitated the astronomical rise of cashless online payments in China. That same year PBoC began research into the creation of a digital yuan as a form of central bank digital currency (CBDC). In recent years, the PBoC has tried to wrest control of China's increasingly cashless digital financial system. Third-party payment providers, namely Ant and Tencent, were initially hesitant to hand over proprietary data on consumer transactions to regulators. Yet in recent years, PBoC officials have applied more pressure to centralize financial data in their own hands and reduce informational asymmetries between regulators and online payment companies. In June 2018, the PBoC forced online payment companies to channel all their transactions through the PBoC's new clearing house, China Net Union Clearing Corporation. The PBoC is currently rolling out plans to implement a unified QR system that both fintech giants would have to adopt.

China is now the front-runner in CBDC research and deployment. After six years of research, the People's Bank of China (PBoC) has launched pilot programs of its e-CNY in four major cities in 2020 and is planning expansion into more regions.<sup>90</sup> The DCEP system is a token-based digital currency running on a two-tiered centralized and permissioned private network controlled by the PBoC. Chinese banks and third-party payment platforms act as intermediaries and settlement ultimately happens in RMB. The DCEP will initially be used across government institutions, then large Chinese companies, and then potentially as a settlement layer across the Belt and Road.

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<sup>90</sup> Jonathan Cheng, "China Rolls Out Pilot Test of Digital Currency," *Wall Street Journal*, April 20, 2020, <https://www.wsj.com/articles/china-rolls-out-pilot-test-of-digital-currency-11587385339>. China's Ministry of Commerce has also announced that it will soon expand the pilot to the Beijing-Tianjin-Hebei, Yangtze River Delta, and "Greater Bay Area" regions. Winni Zhou, "China to launch digital currency pilot program in some cities: MOFCOM," *Reuters*, August 13, 2020, <https://www.reuters.com/article/us-china-mofcom-yuan-digital/china-to-launch-digital-currency-pilot-program-in-some-cities-mofcom-idUSKCN25A0G4>



*Source: Yao Qian, PBoC*

Tier one controls money supply and financial data (i.e. transactions between PBoC and intermediaries such as banks, telecom operators and some third-party payment platforms companies). Tier two controls distribution of e-CNY (i.e. transactions between intermediaries and retail market participants such as individual users or businesses). Intermediaries will include China’s commercial banks (i.e. the “big four” banks), telecom operators, card providers (e.g. UnionPay), and third-party payment companies (e.g. Alipay, Tencent, JD). E-CNY wallets will allow consumers to make payments through QR codes, prepaid cards, or NFC (wireless transfer) technology (like Apple Pay or Samsung Pay).

According to former PBoC chief Zhou Xiaochuan, the second-tier institutions (i.e. banks and fintech platforms) will “own the digital yuan. ... In this sense, DC/EP is different from the typical CBDC, which is owned and indebted by a central bank.”<sup>91</sup> These second-tier institutions will need to bear KYC/AML and user protection compliance responsibilities. The PBoC will ensure the stability of e-CNY’s value by “requiring banks to set aside money as reserves and then issuing them certificates of indebtedness or letters of comfort.” As legal tender, businesses will be obliged to install e-CNY on terminals and payment systems. Even without internet connection, users can transact between two offline devices through New Near Field Communications (NFC) technology that enables mobile wallets to make contactless payments without needing to connect to the internet. PBoC officials have not specified a nationwide launch date—but speculation is that it may be timed to coincide with the 2022 Winter Olympics in Beijing.

PBoC officials have made it clear in their reports and presentations that DCEP will enable “controllable anonymity” in China’s financial system. In practice, this means expanding the PBoC’s oversight over all aspects of citizens’ financial data, while keeping

<sup>91</sup> Zhou Xiaochuan, “Zhou Xiaochuan: China’s Choices in Developing Its Digital Currency System,” *Caixin Global*, February 20, 2021, <https://www.caixinglobal.com/2021-02-20/zhong-xiaochuan-chinas-choices-in-developing-its-digital-currency-system-101664882.html>.

the data anonymous and private to any third party. Using identification-based cryptography (IBC), the PBoC will be the sole authenticator of all financial transactions and all commercial banks' data as well as information from digital currency wallets will be jointly stored in the central bank's database. In so doing, the PBoC aims to increase oversight over all aspects of the financial system, especially in the following key areas:

- Capital flows
- Money-laundering
- Tax evasion
- Terrorist financing
- Real-time macro and financial indicators (e.g. inflation)

Aside from increasing control over the domestic financial system, Chinese policy-makers believe that in the short-term DCEP will help China bypass the SWIFT settlement system, which Beijing fears that the U.S. might use against it, as Washington has used it against Iran and other rivals.

On the cross-border payments side, Chinese officials have also called increasingly for an alternative to the U.S.-led SWIFT (Society for Worldwide Interbank Financial Telecommunication) and CHIPS (Clearing House Interbank Payments) systems where the RMB could be vulnerable to sanctions from Washington. Vice-Chairman of CCIEE (China Center for International Economic Exchanges) stated at a conference in Shanghai on October 29 that the RMB is highly vulnerable to the U.S. on cross-border payments through SWIFT and complained that slow transaction speeds made SWIFT an “outdated, inefficient, and costly payment system”. China is trying to build an alternate payments system—for both domestic and cross-border transactions to wean itself off dollar dependence and avoid the threat of future U.S. financial sanctions. In this new framework, DCEP will be combined with the existing Cross-Border Inter-Bank Payments System (CIPS) for clearing and settlement in cross-border RMB transactions. But CIPS is still small: it process only a fraction of what SWIFT does (CIPS processes ~\$19BN/day while SWIFT processes \$5-\$6TN/day). China's best hope for fast-tracking independence from the U.S.-dominated SWIFT system is by linking “federated e-wallets” via its fintech companies.

*Motivations of Chinese Government: A DCEP settlement system free of the USD<sup>92</sup>*

- Increase efficiency, security, and speed of retail and cross-border payments and settlements.
- Improve record-keeping and verification of financial transactions.

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<sup>92</sup> “重磅!央行数字货币呼之欲出，设计理念和技术架构 首次曝光(附穆长春演讲全文) [Big News! The Central Bank's Digital Currency is About to Emerge, and the Design Concept and Technical Architecture are Exposed for the First Time (Including Full Text of Mu Changchun's Speech)],” *ChainNews*, August 12, 2019, [www.chainnews.com/articles/441923590879.htm](http://www.chainnews.com/articles/441923590879.htm).

- Increase government oversight of all aspects of the economy, including international capital flows and real-time macro and financial indicators (e.g. inflation).
- Facilitate RMB internationalization in tandem with the Belt and Road Initiative and third-party payment platforms such as WeChat Pay and Alipay.<sup>93</sup>
- Bypass the U.S.-based SWIFT settlement system to avoid the threat of U.S. sanctions

According to Mu Changchun, one of the lead architects of e-CNY, the main motivations are to create a system free of the US; increase efficiency, security, and speed of retail and cross-border payments and settlements; improve record-keeping and verification of financial transactions; increase government oversight of all aspects of the economy, including international capital flows and real-time macro and financial indicators (e.g. inflation); facilitate RMB internationalization in tandem with the Belt and Road Initiative and third-party payment platforms such as WeChat Pay and Alipay; and bypass the U.S.-based SWIFT settlement system to avoid the threat of U.S. sanctions.<sup>94</sup>

Most major Chinese companies have already announced some kind of involvement in the DCEP program over the last few years. Many Chinese companies in banking, telecoms, and fintech have announced involvement in the program, including Alipay, WeChat Pay, China Telecom, China Mobile, Huawei, and the big four banks. Several American companies with significant presence in China—including Starbucks, Subway, and McDonald's—have announced their participation in DCEP.

In November 2020, the government reported that \$300M worth of e-CNY had been [spent](#) in 4M transactions.<sup>95</sup> In February 2020, the PBoC concluded the third big test of its digital currency, handing out 10m yuan (\$1.5m) to 50,000 shoppers in Beijing. Authorities are also testing e-CNY transactions on ATMs, hardware wallets, contactless cards, and wearables (e.g. ski gloves for the 2022 Beijing Winter Olympics).<sup>96</sup>

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<sup>93</sup> Chinese officials could incentivise participating BRI countries to settle trade in digital RMB or take on digital RMB-denominated loans. While the share of digital RMB-denominated trade and lending would be raised by DCEP, China's lack of currency convertibility complicates efforts to raise the RMB share of global currency reserves.

<sup>94</sup> “重磅!央行数字货币呼之欲出, 设计理念和技术架构 首次曝光(附穆长春演讲全文) [Big News! The Central Bank's Digital Currency is About to Emerge, and the Design Concept and Technical Architecture are Exposed for the First Time (Including Full Text of Mu Changchun's Speech)],” *ChainNews*, August 12, 2019, [www.chainnews.com/articles/441923590879.htm](http://www.chainnews.com/articles/441923590879.htm).

<sup>95</sup> <https://decrypt.co/46892/use-of-chinas-digital-yuan-nears-300-million>

<sup>96</sup> <https://www.economist.com/finance-and-economics/2021/02/20/bitcoin-crosses-50000> and [http://www.xinhuanet.com/english/2021-01/25/c\\_139695939.htm](http://www.xinhuanet.com/english/2021-01/25/c_139695939.htm)

Chinese companies involved in DCEP testing<sup>97</sup>

| Sectors                                   | Companies                                                                                                                                                                        |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>(Fin)tech/Platform</b>                 | Alipay (Alibaba), WeChat Pay (Tencent), JD.com, Feitian Technologies, Kelan Software, Netac Technology, Sifang Jingchuang, Lakala                                                |
| <b>Telecoms</b>                           | China Telecom, China Mobile, Huawei                                                                                                                                              |
| <b>Banking/Finance</b>                    | ICBC, ABC, CCB, BOC, Shenzhen Sunline Tech, Nations Technologies, Brilliance Technology, Guangzhou Yuyin Technology, GRG Banking, Julong, Ping An Insurance                      |
| <b>Retail</b>                             | Starbucks, Subway, McDonald's, JD.com, UnionPay Supermarket, JD Supermarket, Jian Kun Group, Jin Feng Catering, Welike, uSmile, Qingfeng Bun Shop, CITIC Bookstore, Zhongti Bili |
| <b>Transit &amp; Logistics</b>            | Didi, China Shipping SPV, Cainiao, Neolix (AVs)                                                                                                                                  |
| <b>Manufacturing</b>                      | Chenming Paper                                                                                                                                                                   |
| <b>Hotel, Tourism &amp; Entertainment</b> | Kaili Hotel, Henan Oscar (Cinema), Taoli Pavilion                                                                                                                                |

*Source: Various Media Reports; Forkast*

Chinese policy-makers are also seeking to use e-CNY as a springboard for expanding RMB internationalization. Despite the slight reversal of RMB internationalization since 2015, PBoC officials remain interested in furthering RMB internationalization in trade settlement, cross-border loans, and central bank FX reserves. Thus far, PBoC's efforts to foster RMB internationalization have had very limited success. Even after RMB's addition to the IMF's special drawing rights (SDR) in October 2016 and the launch of China International Payments System (CIPS) in 2015, RMB use has been lackluster, especially taking into account the size of China's trade volumes and the fact that it has replaced the U.S. as the largest goods trader. Nevertheless, the PBoC believes that DCEP

<sup>97</sup> See “互链独家 | 央行数字货币雄安试点邀请名单出炉 星巴克等 19 家在列,” *Chain News*, April 23, 2020, <https://www.chainnews.com/articles/052664454806.htm>

could considerably increase RMB turnover rate and scale and lower costs of cross-border payments. Chinese government officials have been more vocal about the benefits of DCEP to RMB internationalization, especially in response to fears about the rise of Facebook's stablecoin project Libra—now called Diem—as a potential rival and anchor for continued dollar hegemony.

The e-CNY internationalization gambit would involve leveraging the network effects of a growing number of interconnected and interoperable CBDCs issued by central banks around the world. In January 2020, the PBoC set up a JV with SWIFT (i.e. Finance Gateway Information Services Ltd.) to improve cross-border e-CNY use. In December 2020, the Hong Kong Monetary Authority (HKMA) began working with the PBoC on prototyping cross-border clearing and settlement. A month later, the central banks of China, HK, Thailand, and the United Arab Emirates (UAE) announced a collaboration on CBDC and DLT-based cross-border FX payments, building on Project LionRock-Inthanon (i.e. “Multiple Central Bank Digital Currency Bridge” (m-CBDC)) project.<sup>98</sup>

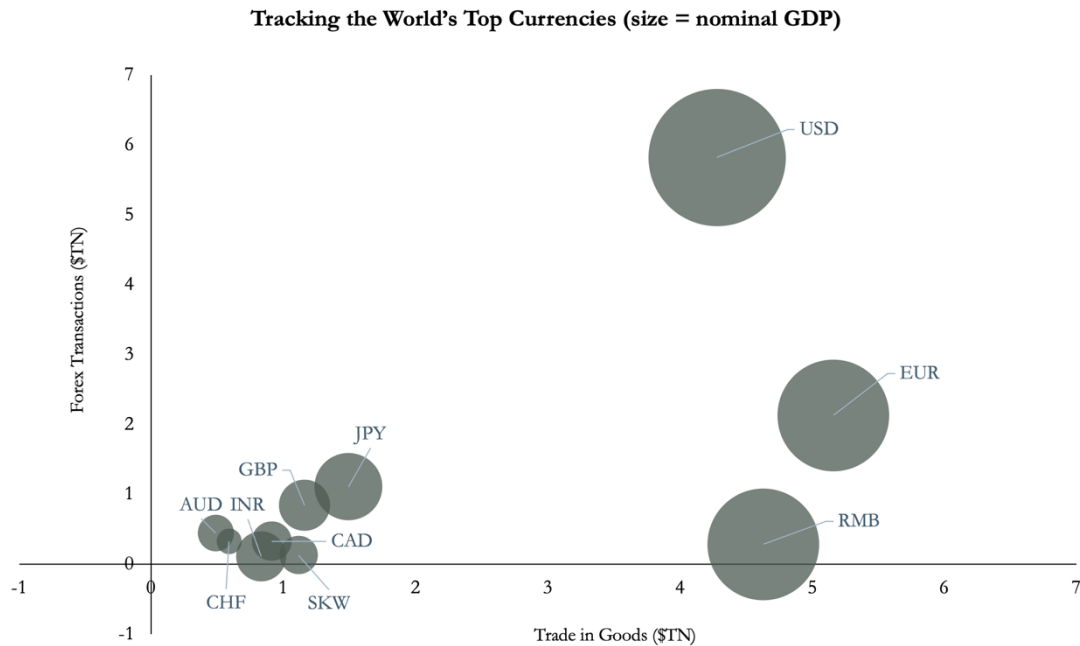
There is a potential too for e-CNY internationalization to be further supported by the BRI. Chinese officials could incentivize participating BRI countries to settle trade in digital RMB or take on digital RMB-denominated loans. Go Yomada and Stefania Palma argue that China's Belt and Road Initiative (BRI), extending from Beijing to South Asia, Africa, and Western Europe, could conceivably give the digital RMB global distribution to continue de-dollarization of Chinese trade and achieve one of Barry Eichengreen's three requirements for currency reserve status.<sup>99</sup> While the share of digital RMB-denominated trade and lending could be raised by e-CNY, China's lack of currency convertibility and closed capital account complicate efforts to raise the RMB, especially with respect to its share of global currency reserves. Moreover, RMB's lack of liquid funding and available hedging instruments will mean that USD continues to be cheaper and easier to borrow and trade in.<sup>100</sup> All things considered, the RMB has a long way to go to achieve the attractiveness of the USD as the world reserve currency given China's continued structural limitations in the following areas: capital account liberalization, full currency convertibility, and stability and trust in China's financial markets and institutions.

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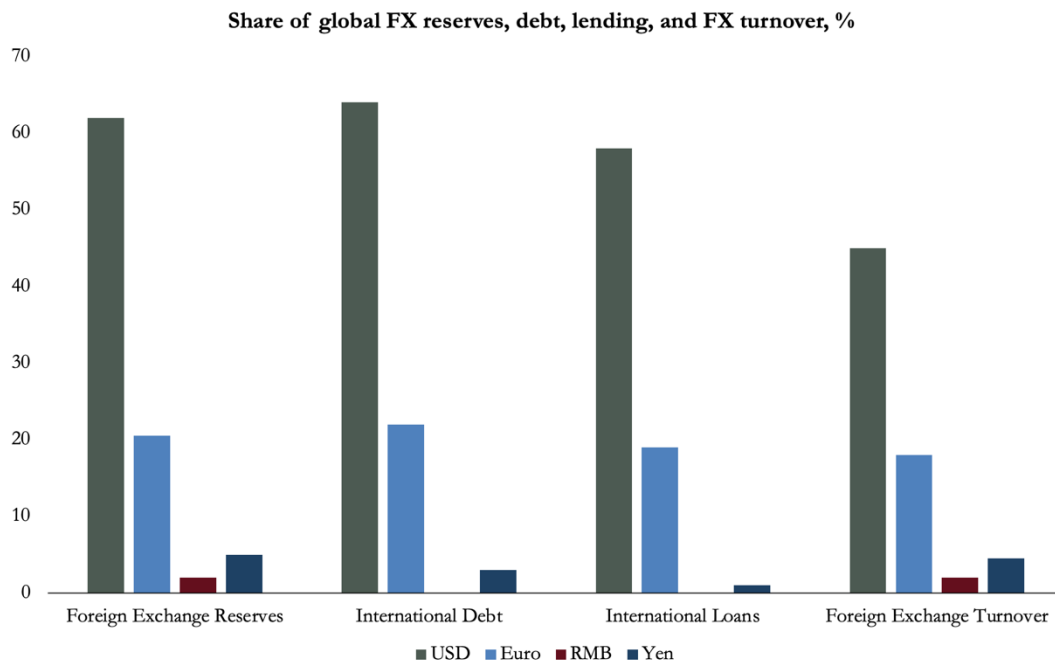
<sup>98</sup> “Joint Statement on Multiple Central Bank Digital Currency (m-CBDC) Bridge Project,” HKMA, February 23, 2021, <https://www.info.gov.hk/gia/general/202102/23/P2021022300482.htm>.

<sup>99</sup> Go Yomada and Stefania Palma, “Is China's Belt and Road Working?,” *Reconnecting Asia*, CSIS, March 28, 2018, <https://reconnectingasia.csis.org/analysis/entries/is-china-belt-and-road-working/>

<sup>100</sup> [https://www.uscc.gov/sites/default/files/2021-04/Martin\\_Chorzempa\\_Testimony.pdf](https://www.uscc.gov/sites/default/files/2021-04/Martin_Chorzempa_Testimony.pdf)



*Source: BIS; World Bank; UN; Eurostat*



*Source: IMF (2020)*

WeChat Pay and Alipay could potentially give some credible ballast to e-CNY internationalization that would defy economists' models about reserve currency status. The global spread of their e-wallets could theoretically create a network of global users

that would be more receptive to accepting e-CNY given the ease of transacting and network effects. The best-case scenario would be a blending of Ant and Tencent’s “federated” global e-wallet network with central bank-led CBDC bridges.

Yet, here technology runs up against geopolitics. If Ant and Tencent choose to allow foreigners to use e-CNY abroad or go further by promoting e-CNY use in foreigners’ e-wallets, they would have to deal with compliance and licensing issues as a payment provider in foreign jurisdictions, as Chorzempa rightly points out.<sup>101</sup> Beyond financial regulation concerns, foreign states and companies will be yet more concerned about the surveillance capabilities of e-CNY given perceptions of Chinese government’s past record and model of “techno-authoritarianism.”<sup>102</sup> Ant and Tencent’s e-wallets may in time be the collateral damage of e-CNY’s global ambitions as foreign users, institutions, and states, particularly democratic-minded ones, fear the way in which e-CNY can be weaponized as a form of surveillance or coercion.

These fears stem from the Chinese Communist Party’s (CCP) increasingly visible hand in the realms of the private economy and technology. A concerning trend noted by foreign observers is the increasing encroachment of the CCP on private tech companies. In September 2020, the CCP issued provisions in the *Opinion on Strengthening the United Front Work of the Private Economy in the New Era*, which called for increasing hiring of CCP members within the companies for enhanced surveillance.<sup>103</sup>

#### *Perceived threats posed by DCEP to democratic institutions*

- Through a combination of DCEP and the Social Credit System, the Chinese government will be able to financially isolate and suppress critics and dissidents including journalists, intellectuals, minorities, and would-be political opponents.
- The centralized ledger system could be used as a way to preferentially and unfairly benefit Chinese companies, as the great firewall of China has done domestically.
- Data privacy and security risk to foreign entities since all financial data operated on by Chinese firms could be transferred to the Chinese government pursuant to the [2017 Cybersecurity Law](#) and the new 2020 draft [Data Security Law](#).

#### *Market Governance Trade-offs and Political Cleavages*

|  |                                 |                                         |
|--|---------------------------------|-----------------------------------------|
|  | <b>Market Design Trade-offs</b> | <b>Political Interest<br/>Cleavages</b> |
|--|---------------------------------|-----------------------------------------|

<sup>101</sup> Chorzempa, 2021, [https://www.uscc.gov/sites/default/files/2021-04/Martin\\_Chorzempa\\_Testimony.pdf](https://www.uscc.gov/sites/default/files/2021-04/Martin_Chorzempa_Testimony.pdf).

<sup>102</sup> Maya Wang, “China’s Techno-Authoritarianism Has Gone Global,” *Foreign Affairs*, April 8, 2021, <https://www.foreignaffairs.com/articles/china/2021-04-08/chinas-techno-authoritarianism-has-gone-global>.

<sup>103</sup> Scott Livingston, “The Chinese Communist Party Targets the Private Sector,” *CSIS*, October 8, 2020, <https://www.csis.org/analysis/chinese-communist-party-targets-private-sector>.

|            |                                                                                            |                                                                                         |
|------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| DCEP/E-CNY | Control/stability vs. price efficiency (consumer welfare)                                  | PBoC regulators vs. local/central government cadres                                     |
|            | Competition vs. economies of scale                                                         | Traditional banks / other fintech companies vs. incumbents (Ant Financial and Tencent)  |
|            | Innovation / private firms vs. technology diffusion / state-owned banks                    | Incumbents (Ant Financial and Tencent) vs. challengers (ByteDance, Kuaishou, Pinduoduo) |
|            | Public interest (privacy, data, price, etc.) vs. private profit and/or government control  | Citizens vs. private firms and/or state                                                 |
|            | Internationalization/cross-border interoperability vs. financial stability                 | Foreigners vs. domestic Chinese and financial regulators                                |
|            | Autarky in international payments / monetary sovereignty vs. cross-border interoperability | Domestic elites vs. foreigners                                                          |

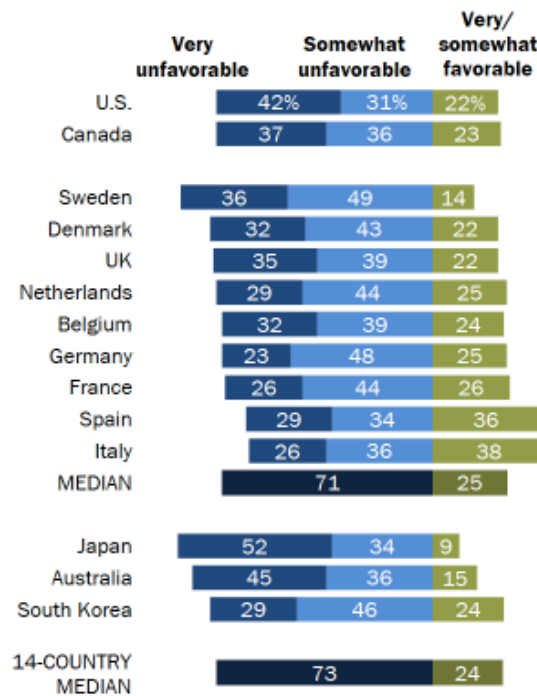
iii. *Global regulation: the anti-China backlash*

But China's big tech companies are now facing a global anti-China backlash. The beginnings of a new "Cold War" struggle are invariably expanding into the realm of financial technologies. The U.S. and Europe have erected more stringent screening policies for Chinese investment, especially in strategic areas such as technology and infrastructure. The decline in Chinese outbound FDI after 2016 has been driven by increased foreign scrutiny of Chinese investment strategies and M&A activity. But the West is not alone in voicing increased skepticism. India, Europe, and other U.S. allies (e.g. the UK, Japan, Canada, New Zealand, and Australia) are a great deal more skeptical towards Beijing and its tech companies. There are growing risks that these countries will try to ringfence Chinese fintech companies through data and financial regulations and tighter screening of Chinese investment in local fintech companies.

This trend is not unique to the developed world. Politicians in East Africa and Latin America reveal increasing misgivings about Chinese investment in their home countries. Foreign leaders such as former Tanzanian president John Magufuli are using anti-China sentiment for political gain by blocking Chinese investments and infrastructure projects.<sup>104</sup> By and large, developing countries in Southeast Asia, Latin America, Africa, and the Middle East will have less qualms about human rights and the Chinese political system than developed countries; but an “open door” for Chinese fintech or tech expansion into nascent markets is still unlikely even in EMs. While in the post-COVID-19 era, developing countries will almost certainly become more reliant on Chinese loans and aid, the direction of travel is clearly toward increasing skepticism vis-à-vis China’s commercial motivations overseas.

### Unfavorable views of China prevail

% who have a \_\_\_ view of China



Note: Those who did not answer are not shown.

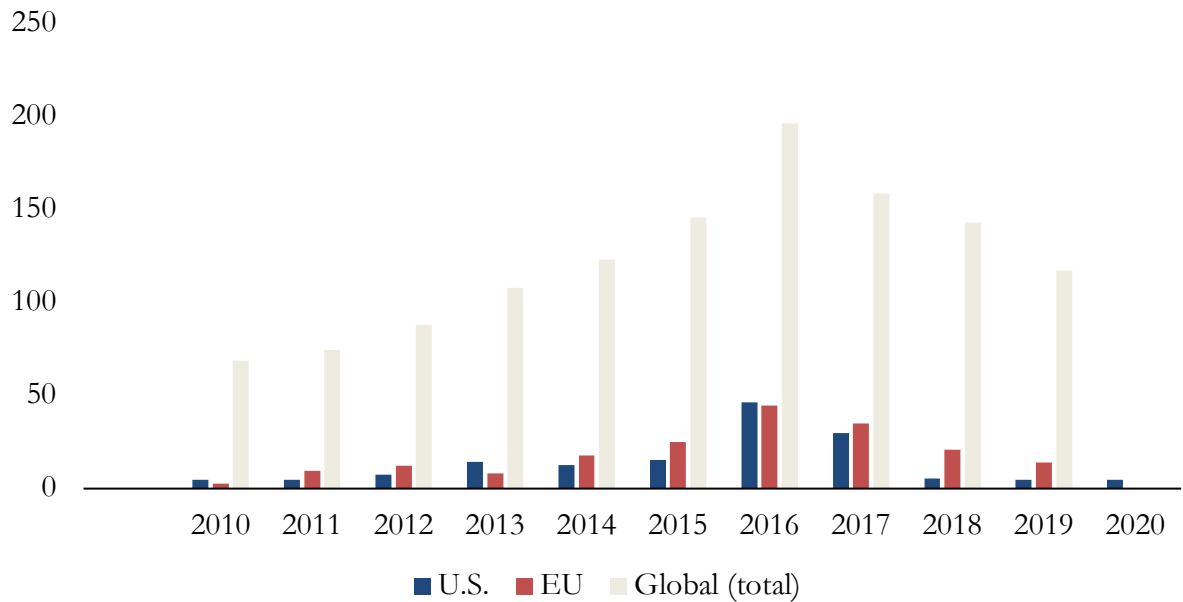
Source: Summer 2020 Global Attitudes survey. Q8b.

“Unfavorable Views of China Reach Historic Highs in Many Countries”

Source: Pew (2020)

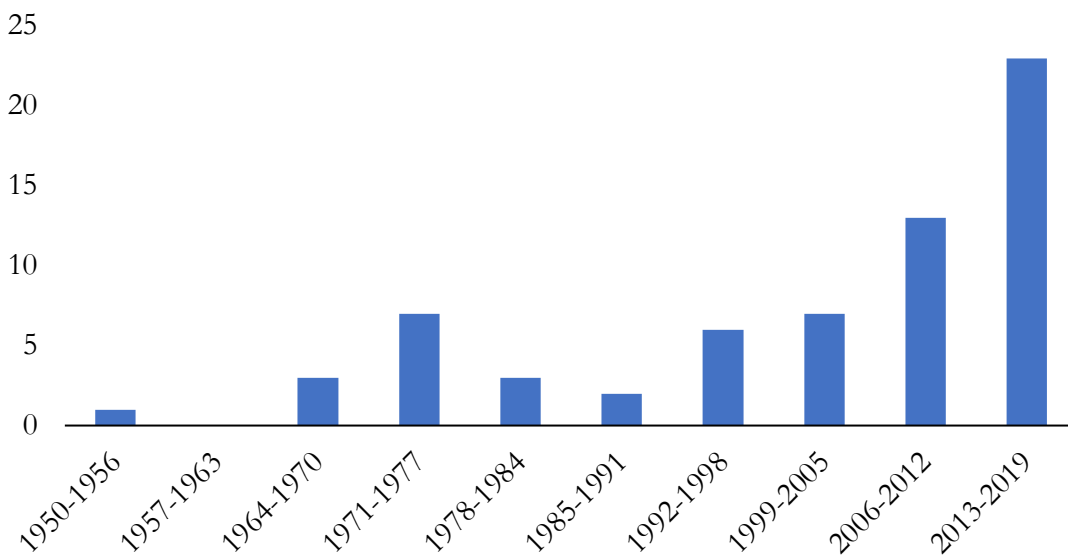
<sup>104</sup> Dipanjan Roy Chaudhury, “Tanzania President Terms China’s BRI Port Project Exploitative, *The Economic Times*, July 6, 2019, <https://economictimes.indiatimes.com/news/international/world-news/tanzania-president-terms-bri-port-project-exploitative/articleshow/70109612.cms>.

### China outbound FDI in U.S., EU & world, \$BN



Source: *U.S.-China Investment Hub; Rhodium Group; Statista*

### Changes to FDI screening regimes in 20 major economies, 1950-2019



Source: *Rhodium Group*

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### Case-study: INDIA—Digital De-Sinicization and Protectionism

The most striking case of this has been the recent crackdown in India. The transaction volume of India's United Payments Interface (UPI)—a smartphone-based fast payment system—grew 30-fold from 2017 (INR 53BN) to 2019 (INR 1,614BN). UPI has facilitated the rise of local e-wallets such as Paytm, MobiKwik, PhonePe, BHIM and, more recently, Reliance's Jio Pay. The U.S.'s GooglePay is also in the top five. India has successfully developed a domestic card payments network, RuPay, that has pushed out foreign competitors, MasterCard and Visa. Reliance's Jio Pay is teaming up with Facebook to model itself on China's WeChat super-app platform. New Indian regulation is driving out Chinese tech firms and [replacing](#) them with local players. It is also blocking Chinese investment in Indian start-ups, which the government calls "opportunistic takeovers." This India-type "digital protectionism" or localization is ripe for spreading across major economies.

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## Trump administration is considering curbs on payment apps by Ant Group and Tencent on 'national security' grounds

- Ant Group, an affiliate of this newspaper's owner Alibaba Group Holding, said it's "unaware of any such discussions within the administration"
- Tencent didn't respond to request for comment

Bloomberg

Published: 11:07am, 8 Oct, 2020

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Ant has consistently projected that it supports local partners and has no direct access to user data on partner apps—these data are stored locally. But the public perception is markedly different—and this may reign supreme in the end. Foreign countries have already tried to curtail Chinese tech interests by blocking their attempted M&A activity—this trend is likely to continue. In 2018, Ant's high-profile attempt to acquire U.S. money transfer company Moneygram was blocked by the Committee on Foreign Investment in the United States (CFIUS) on national security grounds—as the platform was frequently used by U.S. military personnel abroad. A less well-publicized case was CFIUS' blocking of Tencent's attempted investment in Dutch digital mapping company, Here Technologies, in 2017 because of its significant operations in the U.S.

As the Chinese government tries to push its state-run e-CNY globally over the next decade, most developed countries will try to counter with regulation and support for local fintech champions and CBDCs. Increasingly unfavourable views of China and concerns over data protection and security will make fintech the next BRI and 5G—in short, turning into a lightning rod for the global anti-China backlash. Foreign countries and firms will be better equipped to replicate the Chinese fintech model as it is infinitely easier to iterate and scale than 5G network technologies. Private Chinese companies such as Ant Financial and Tencent could well become Huawei-like collateral in this next arena of conflict.

iv. *Global competition: “Local champions” and new entrants*

Another major headwind risk for Chinese fintech companies’ global expansion will be growing competition from other fintech players or “local champions” that are actively replicating the China fintech playbook. Indian Reliance’s Jio Pay and Indonesian Gojek are both fashioning themselves after WeChat’s super app example. Both are being funded by U.S. tech companies seeking to enter the payments space in Asia. Facebook, in particular, looks set to embed its WhatsApp Pay digital wallet on the Jio Pay and Gojek platforms. Facebook’s digital currency stablecoin project, renamed as Diem, also seeks to dominate global payments by leveraging its network of 2.8 billion users (a third of the world’s population). Other U.S. tech firms, Apple, Google, and Paypal, have been actively learning from the Chinese fintech playbook and are also jumping into payments and increasing their fintech presence in Asia.

It should be noted that reluctance to adopt mobile wallet and QR-based technologies may also stymie or slow down the spread of China’s payments system. Singapore, for instance, is said to have one of the lowest mobile wallet adoption rates due to the stickiness of their card-based system.<sup>105</sup>

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<sup>105</sup> “Singapore consumers still prefer to pay for online purchases by credit card versus e-wallet,” *The Straits Times*, November 12, 2018, <https://www.straitstimes.com/business/banking/singapore-consumers-still-prefer-to-pay-for-online-purchases-by-credit-card-versus>.

TOP APPS WORLDWIDE BY REVENUE IN 2020 (SENSOR TOWER)

| Overall Revenue |                                                                                                 | App Store Revenue |                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------|
| 1               |  TikTok        | 1                 |  TikTok        |
| 2               |  YouTube       | 2                 |  YouTube       |
| 3               |  Tinder        | 3                 |  Tinder        |
| 4               |  Disney+       | 4                 |  Tencent Video |
| 5               |  Tencent Video | 5                 |  Disney+       |
| 6               |  Piccoma       | 6                 |  iQIYI         |
| 7               |  Google One    | 7                 |  Netflix       |
| 8               |  iQIYI         | 8                 |  Piccoma       |
| 9               |  LINE          | 9                 |  Youku         |
| 10              |  BIGO LIVE     | 10                |  QQ Music      |

Up-and-coming Chinese fintech companies such as Bytedance may find more luck than Ant and Tencent in expanding their fintech businesses globally directly through their popular platforms. Bytedance's short video app, TikTok, continues to expand globally with the proportion of internet users on TikTok [increasing](#) from 11% in 2019 to 18% in 2020. It remains the most downloaded app in the world and has remarkable adoption levels in countries around the world—arguably a greater achievement in global expansion than Tencent and Alibaba have ever experienced.<sup>106</sup> This global presence and Bytedance's recent foray into payments could offer fertile ground for a strategic segue into global in-app purchases and payments.

In Africa, especially, Chinese tech companies are quietly making inroads. Nigeria-based but Chinese-owned tech company Transsion Holdings continues to lead in market share in Africa.<sup>107</sup> Its main product, Tecno, was one of the first to offer an Ethiopian Amharic keyboard and its Boomplay music streaming app is now the largest music streaming service in Africa.<sup>108</sup> This too could confer Transsion asymmetric network advantages for an expansion into payments, which it is already moving into with its recent funding of African fintech startup, PalmPay.<sup>109</sup>

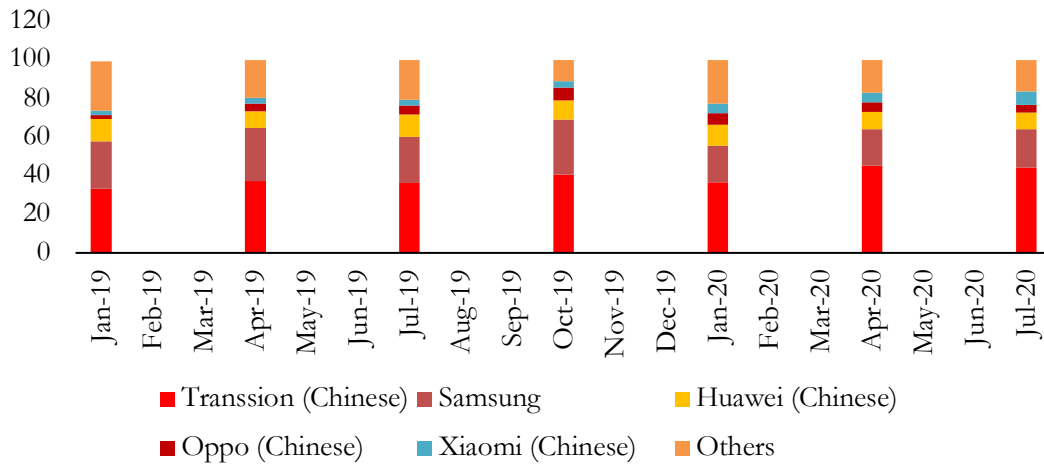
<sup>106</sup> Andrew Hutchinson, "TikTok Remains The Most Downloaded App in Q1 2021, According to New Data, *SocialMediaToday*, March 31, 2021, <https://www.socialmediatoday.com/news/tiktok-remains-the-most-downloaded-app-in-q1-2021-according-to-new-data/597672/>.

<sup>107</sup> "Africa Smartphone Unit Shipments' Share From Fourth Quarter 2018 to Third Quarter 2020, By Vendor," *Statista*, December 2020, <https://www.statista.com/statistics/1104732/africa-smartphone-shipments-share-by-quarter/>.

<sup>108</sup> Aisha Salaudeen, "How China's Boomplan Beat Spotify And Apple To Corner Africa's Streaming Market," *CNN*, June 5, 2019, <https://www.cnn.com/2019/06/05/africa/boomplay-music-africa-intl/index.html>.

<sup>109</sup> Jake Bright, "PalmPay Launches In Nigeria On \$40M Round Led by China's Transsion," *Techcrunch*, November 12, 2019, <https://techcrunch.com/2019/11/12/palmpay-launches-in-nigeria-on-40m-round-led-by-chinas-transsion/>.

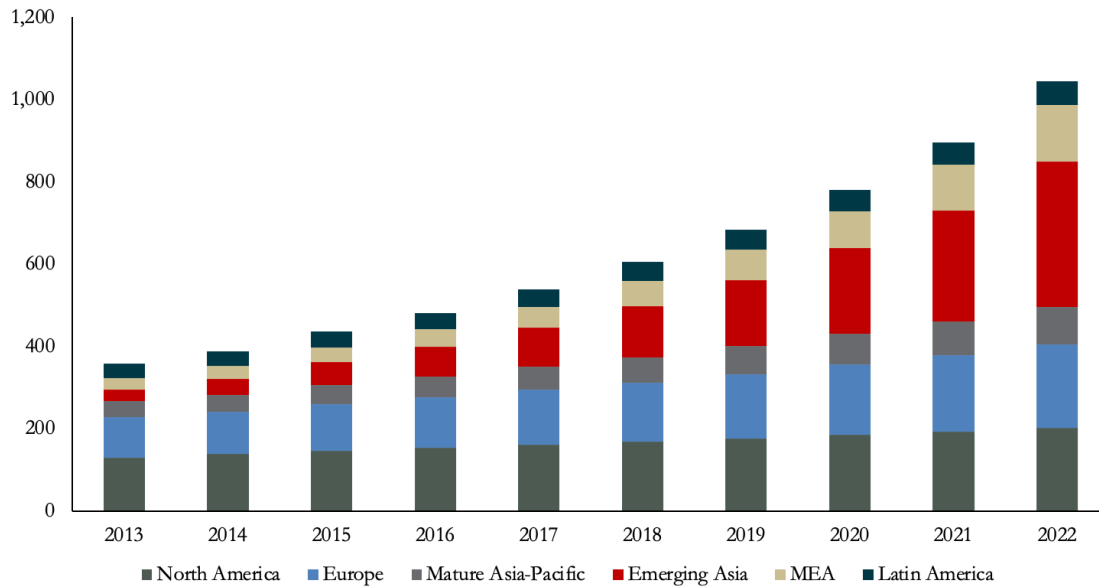
**Africa smartphone market share by vendor share of shipments, %**

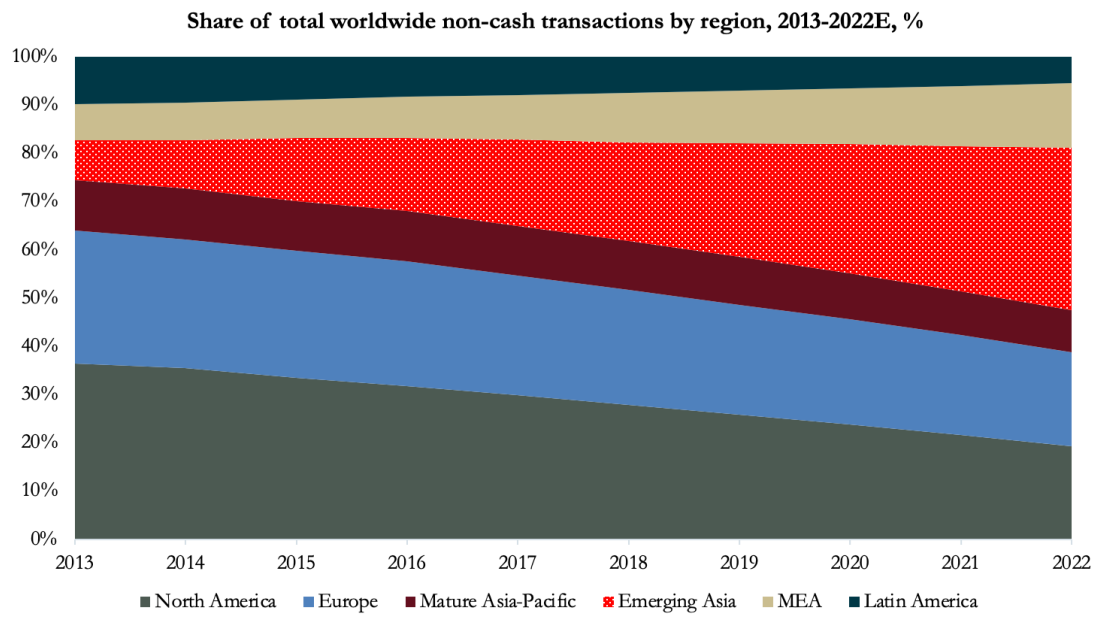


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*Source: Statista*

**No. of worldwide non-cash transactions by region, 2013-2022E, \$BN**





Source: Statista

## CONCLUSION

The fragmentation or “balkanization” of the internet by tech giants has become a global phenomenon. As Miguel and Casado (2016) observes, Google’s search robots cannot enter Facebook, effectively creating fragmented business ecosystems or b-Ecosystems.<sup>110</sup> Similarly, in China, Alibaba and Tencent have been locked in fierce competition, forcing merchants to “pick one from two” and blocking access to other platforms through their apps. The fragmentation of the internet is most keenly felt in the rise of the so-called “Splinternet,” driven by China’s “Great Firewall,” which boxes out access to the U.S. Internet ecosystem and creates native alternatives within a state-controlled ecosystem.<sup>111</sup> This trend is likely to continue with other countries like Russia seeking to protect its citizens’ data and control information flows. The Chinese model of “digital authoritarianism” demonstrates how the proliferation of information technologies has created both risks and opportunities.

As Steven Vogel notes in *Marketcraft*, “the information revolution requires more market governance, not less.” It is evident that the proliferation of financial data over the past decade has given rise to the need for adequate policy responses that resourcefully navigate the spaces between competition and control. The Chinese government is experimenting with a radically new fintech system and a regulatory regime in response to it. Its approach has been to weave elements of the innovative market and the protectionist state to optimize on both competition and control. The success of this endeavor will rest on the government’s ability to make the most of both without hurting the very companies, Tencent and Alibaba, that made China’s fintech revolution possible in the first place. But Beijing’s updated anti-monopoly law, financial crackdowns, and the roll-out of e-CNY are all leading to a sustained erosion of the Alibaba (Ant)-Tencent duopoly—hurting the very firms that may help it accelerate e-CNY internationalization. The DCEP e-CNY roll-out is unlikely to be an aid to Chinese fintech companies’ internationalization in the short-run. If anything, the global image of China’s “techno-authoritarianism” or “digital authoritarianism” has become so noxious that it threatens to overshadow private fintech companies’ foreign expansion efforts by directing anti-China sentiment towards Chinese fintech players. Meanwhile, the Chinese government’s intent to kneecap Ant and Tencent’s stranglehold over data will limit their ability to invest abroad and subsidize foreign uptake of their platforms.

Fintech is shaping up to be the next battleground for Cold War II—and this time around, the world is likely to be more multipolar than bipolar. Within this framework, Chinese ambitions to expand fintech influence through private companies and the state-led “digital RMB” (e-CNY) will likely provoke a wave of “digital protectionism” among developed nations to protect internal digital payments. While China runs the risk of being increasingly boxed out of other countries’ digital payments, Chinese tourists and Chinese living abroad will continue to expand global acceptance of and interoperability with

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<sup>110</sup> J.C. Miguel and M.A. Casado, “GAFAnomy (Google, Amazon, Facebook and Apple): The Big Four and the b-Ecosystem,” *Dynamics of Big Internet Industry Groups and Future Trends*, 2016.

<sup>111</sup> Keith Wright, “The ‘Splinternet’ Is Already Here,” *Techcrunch*, March 13, 2019, <https://techcrunch.com/2019/03/13/the-splinternet-is-already-here/>.

Chinese e-wallets. Through Beijing's DCEP/e-CNY project, Chinese fintech companies may actually experience some added asymmetric advantages in global cross-border transactions, blending a "federated" global e-wallet network with central bank-led CBDC bridges.

Chinese fintech companies' globalization strategies will have profound implications for the global development of payment platforms and financial services. China already [accounts for](#) 23 percent of global cross-border data flows, double the U.S. share—mostly thanks to the use of popular Chinese apps and services in Japan and Southeast Asia provided by Tencent's WeChat and Bytedance's TikTok. This share could very well continue to expand. The story of Ant Group and Tencent's global expansion—whether by means of federated e-wallets, strategic partnerships, or investments—will indelibly shape the global landscape of financial inclusiveness, innovation, stability, and data privacy. China's fintech story is already inspiring similar proliferation around the world. The bullish scenario will be the creation of a Chinese-designed digital financial infrastructure that may yet surpass the influence of the Belt and Road Initiative itself. The bearish outcome is increased regulatory clampdown both domestically and overseas that could dampen Chinese fintech companies' growth prospects.

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