For professional investors - Marketing communication

FINTECH IN EMERGING MARKETS

July 2020

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ASSET MANAGEMENT

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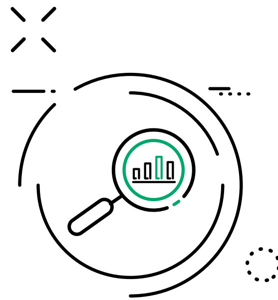
CRACKING THE CODE OF FINANCIAL INCLUSION



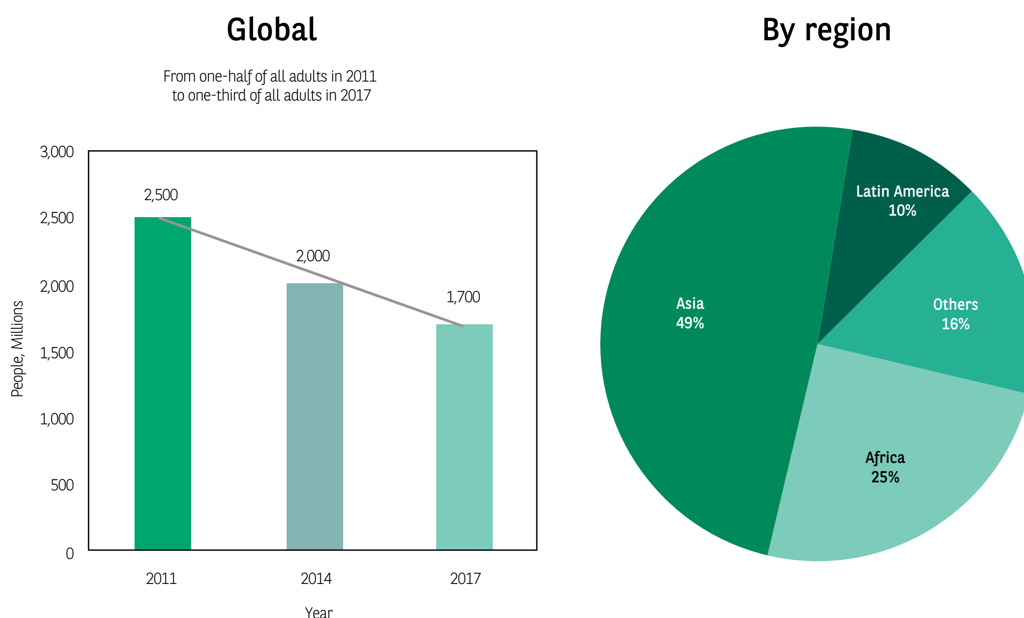
In emerging markets (EM), the path to progress and prosperity is made more difficult by considerable structural challenges. These challenges, such as entrenched economic interests, weak institutional checks and balances and overall lack of physical infrastructure, create barriers to inclusive growth and sustainable development. Many businesses and investors tend to view these impediments as sources of risk or drag, best avoided or mitigated. However, the most compelling companies we find among EMs are taking the opposite approach. They are tackling these challenges head on and, in many cases, their efforts are unlocking massive opportunities.

One prime example is the intersection of technology and banking. Over a decade ago, a group of pioneering EM companies from different geographies and industries found common cause in using technology to address gaps in the banking system that were limiting business growth, constraining consumer demand and hampering overall economic growth. Guided by *what may be possible*, and taking risks to change *what is*, these companies have not only achieved remarkable success for their core businesses, but have also advanced one of the most pivotal goals for global development: financial inclusion.

THE UNBANKED

Financial inclusion refers to universal access to basic financial services regardless of wealth, location or gender. It is widely considered a critical building block in reducing poverty and promoting economic growth. In fact, it is an enabler for seven of the 17 United Nations' Sustainable Development Goals[1], making clear how elemental and urgent the issue is, particularly for developing economies. In 2011, the World Bank Group's comprehensive Global Financial Inclusion Database, known as The Global Findex, began tracking the extent of and reasons for financial exclusion, as well as how the issue was being addressed. Its latest report in 2017 revealed that substantial progress had been made in six years, lifting 1.2 billion adults globally from unbanked to banked status. However, a further 1.7 billion adults worldwide – one-third of all adults – remained financially excluded as of that report, indicating there is still a tremendous amount of work to be done.

The Unbanked



Source: Demirguc-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar and Jake Hess. 2018. The Global Findex Database 2017*: Measuring Financial Inclusion and the Fintech Revolution.*2018

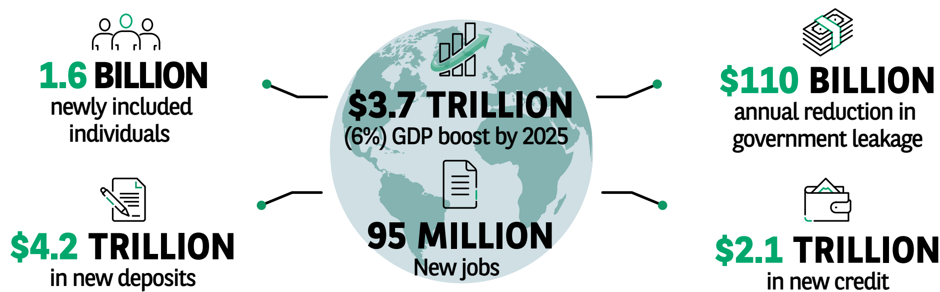
Increasing attention to and collaboration on this issue has become apparent since the Findex studies. But awareness and interest have equally been piqued by the conspicuous success of non-bank private sector players who have been engaged in tackling financial exclusion for nearly 20 years. They have done so by taking advantage of emerging financial technologies, or fintech. Their strides have made clear the material benefits to be gained from serving the underserved. This has led to more competition—and more innovation—as other companies see the opportunities unlocked by such efforts. A more active and competitive market had been a critical missing piece of this puzzle for years.

1 The World Bank Group. "Financial Inclusion: An Overview". Oct 02, 2018

These pioneering companies deserve recognition both for their early 'heavy lifting' and for the enduring influence that their accumulated knowledge and development paths provide in shaping policy around the issue of financial inclusion. Marrying market-based motivations with the affordability and scale that technology provides, the rise of fintech in EM is arguably more a complement than a disruption to the existing system. It has served to guide (and, at times, goad) policymakers, and financial industry incumbents alike, into action.

In a 2016 report by McKinsey Global Institute, research dedicated to quantifying the potential benefits of digital finance concluded that widespread adoption could increase the GDP of all emerging economies by 6%, or USD 3.7 trillion, by 2025, and lead to the creation of 95 million jobs.

The potential economic impact



Source: McKinsey Global Institute: "Digital Finance for All: Powering Inclusive Growth in Emerging Economies", September 2016

This virtuous cycle is not mere conjecture. It has been playing out over the past two decades in select emerging markets, catalysed mainly by the intense efforts and innovative thinking of a few companies whose pioneering steps helped create the EM fintech groundswell. Here we describe how the unique approaches of some of these companies resulted not only in tremendous business success, as measured by positive growth and rising profits, but also in improving the lives of those they served and the economies around them, thus achieving a true "triple bottom line".[2]

MORE MOBILE PHONES THAN BANK ACCOUNTS

As of the second Global Findex Study in 2014, an extraordinary development in sub-Saharan Africa (SSA) began to capture attention. Mobile phone-enabled store-of-value and transaction accounts exploded onto the scene, with 12% of adults in SSA – roughly one-third of the banked population – reported to be using mobile money accounts. This is a very high rate of penetration considering just 2% rate in the rest of the world. What's more, nearly half of these adults reported having *only* a mobile money account and no formal bank account. The rise in mobile money accounts drove nearly all of the 10ppt improvement in financial inclusion in SSA over 2011-2014, raising the ratio of account ownership from 24% to 34%.

This phenomenon traces its roots to one company's intrepid activities in Kenya, back in 2007. Safaricom, Vodafone's subsidiary in Kenya, had launched a digital micro-credit product called M-PESA (M for mobile, and *pesa*, meaning "cash" in Swahili). The product, partially conceived of and funded by a UK development fund "challenge"[3], was inspired by the observation that African mobile network customers were transferring prepaid airtime to each other as a sort of quasi-currency.

2 A term coined in 1994 by John Elkington, British management consultant, arguing appraisal of companies ought to go beyond measurement of financial profits to include consideration of social and environmental impacts such that stakeholder thinking shifted from seeking to be "the best in the world" to being "the best for the world".

3 Funds from The Department for International Development (DFID), out of the UK, helped develop M-PESA

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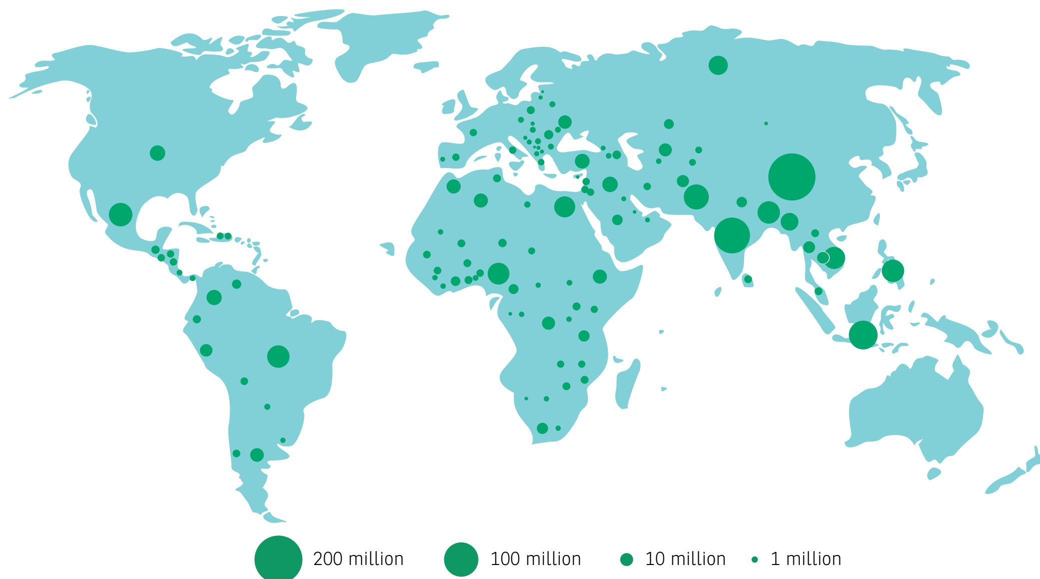
Vodafone's Nick Hughes reflected on the early thinking: "Since the creation of money, the ability to move it from A to B – the so-called 'velocity of money' – has been a fundamental cornerstone of economic activity. But the issue is exactly how money transfer is made to happen in an emerging market where the infrastructure is poorly developed..." He recognised as well the significant assets Vodafone could bring to the cause. Affordable mobile phones, especially pre-paid versions, had fed rapid adoption and pushed expansion of the mobile network, and this infrastructure was often all that many parts of Africa had available to connect to the rest of the world.

Two-thirds of unbanked adults have a mobile phone
Adults without an account owning a mobile phone, 2017



Sources: Global Findex database, Gallup World Poll, 2017.
Note: Data are not displayed for economies where the share of adults without an account is 5 percent or less

In 2007, mobile phones in SSA had only the basic functionality of SMS-based text messaging, so M-PESA's creators worked within this technology, given the reach and cost had already proved appropriate for their target market. Despite not being new technology, significant research and development resources were still required. Executives needed to be convinced of the merits of pursuing a non-core, low-yield product, airtime resellers needed training to become on-the-ground e-money agents, and – of course - users needed to be educated. Further, there were substantial regulatory hurdles for Safaricom to clear in order to operate essentially as a bank branch manager, but without the bank.

While initially intended to facilitate receipt and repayment of microfinance loans, pilot tests indicated early users were primarily sending money to family and friends in rural areas. This led them to focus on strengthening the phone-to-phone transfer function, ultimately bringing what had been an informal system of cash-based, peer-to-peer lending into a digital and therefore more trackable realm. Pre-paid subscribers could now settle payments within their peer group and pay bills for their mobile phone or other utilities.

Payments that had previously been made in cash—in an envelope, in person or by bus—leaving people vulnerable to costly transfer fees at best, and theft or other abuses at worst, could now be made quickly and securely via mobile phone. Users could receive funds from

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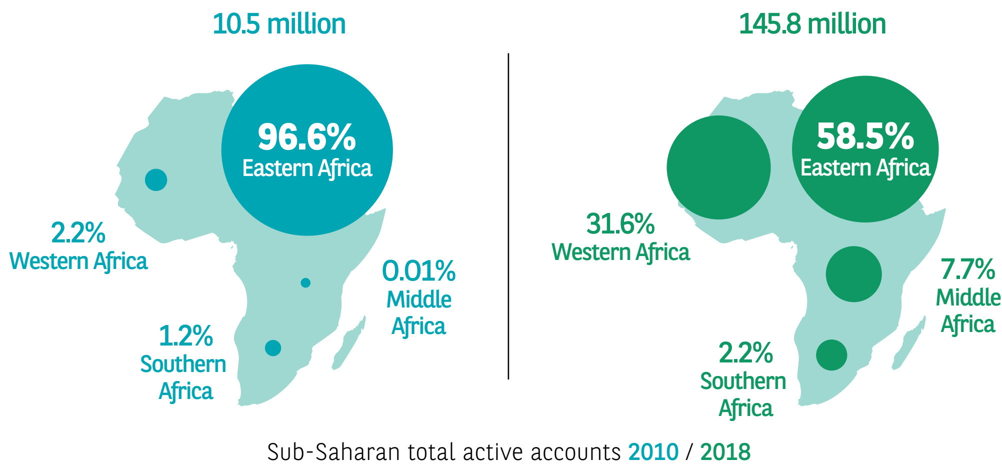
their peer network, which the mobile network's reach had widened and secured, eventually enabling cross-border transmission as well, which meant migrant workers abroad could safely remit earnings back to their families in Kenya. It also made borrowing more efficient, which brought resilience to these individuals and households in times of need. Most importantly, perhaps, users began to build a credit and transaction history, the foundational ingredients for gaining access to further financial services.

M-PESA is now in use by about three-quarters of all of Kenyan adults, and its transactions make up some 45% of national GDP[4]. According to KPMG's True Value Study, Safaricom over the last 10-years has not only increased profits 9.6-fold, but has also contributed 6.3% to Kenya's GDP through job creation, M-PESA customer stability (being able to receive, save and send money) and infrastructure investment.[5] Further, the experience in Kenya motivated Safaricom's expansion into neighbouring regions and drew competitors, spreading the positive impact of its pioneering effort.

Mobile money account spread – Africa



Sub-Saharan total active accounts **2010** / **2018**

Source: GSMA State of the Mobile Money Industry in Sub-Saharan Africa 2018

This has benefited the overall rate of financial inclusion in SSA, driving nearly all of the 9ppt improvement from 34% to 43% over the 2014-2017 period. Furthermore, with mobile phone penetration in sub-Saharan Africa still quite low, at just 44%[6] as of 2019, there remains enormous upside potential for store-of-value transaction products, such as M-PESA, to not only gain ground, but evolve with users across the region, especially as the installed base of mobile phones transition from feature phones to internet enabled smartphones.

4 Center for Financial Inclusion at Accion. "Sub-Saharan Africa Mobile Money: Diverse Use Cases, Enabling Environment Boost Adoption."
5 Safaricom 2019 Sustainability Report
6 GSMA The Mobile Economy of Sub-Saharan Africa 2019

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ASIAN EQUATION

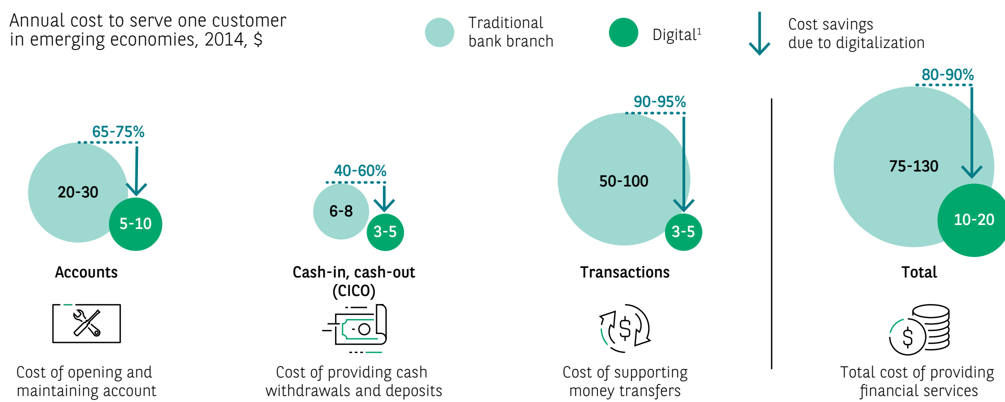
A continent away in Asia, the mobile phone phenomenon had similarly taken hold, with China leading the charge as affordable access to the internet took rapid root among its burgeoning middle class. Unlike the case in Kenya and most of Africa, China was one among a handful of emerging markets with already high financial service account penetration[7]. Yet it still was topping the list as of 2017 of the world's most unbanked, with 225 million adults financially excluded, accounting for 13% of the global total.

Despite having a policy focus on financial inclusion as early as the 1950s, China's rural credit cooperatives and vast agent network remained constrained and rigid, failing to effectively activate accounts they had opened, and still struggling to reach the more remote and poor communities. China, as with many EMs, has an over 40% rural population which, for the financial service industry, presents a series of hurdles:

- High transaction costs to serve customers with low or irregular incomes
- Logistical and economic challenges in reaching rural consumers in remote areas
- Insufficient data, preventing reliable and efficient assessments of creditworthiness[8]

This is where technology has come into play with spectacular effect. It has made what had been an imbalanced cost-benefit equation for financial industry incumbents a now more commercially viable opportunity. As McKinsey Global Institute highlights in its 2016 digital finance study: "As costs decrease, providers can serve ever more customers profitably, in more ways, and charge lower prices, and so more people are included. With these network effects, adoption can be rapid."

Digital technologies cut the cost of providing financial services by 80 to 90 percent



1 To reach full cost savings, sufficient improvements are necessary in system design, scale and operational efficiencies

Source: McKinsey Global Payments Map; Roger Voorhies, Jason Lamb and Megan Oxman, *Fighting poverty, profitably: Transforming the economics of payments to build sustainable, inclusive financial systems*, Bill and Melinda Gates Foundation, September 2013, Mc Kinsey Global Institute analysis

This provides appropriate context for introducing the role that China's omnipresent tech giants have played since their early days as start-ups, facing the conundrum of a large population with relatively solid access to bank accounts but still enormous unmet needs – financial and otherwise.

7 Brazil, China, Malaysia, and South Africa financial account ownership remained over 70% from 2014-2017, according to The World Bank Group Global Findex report (2017)

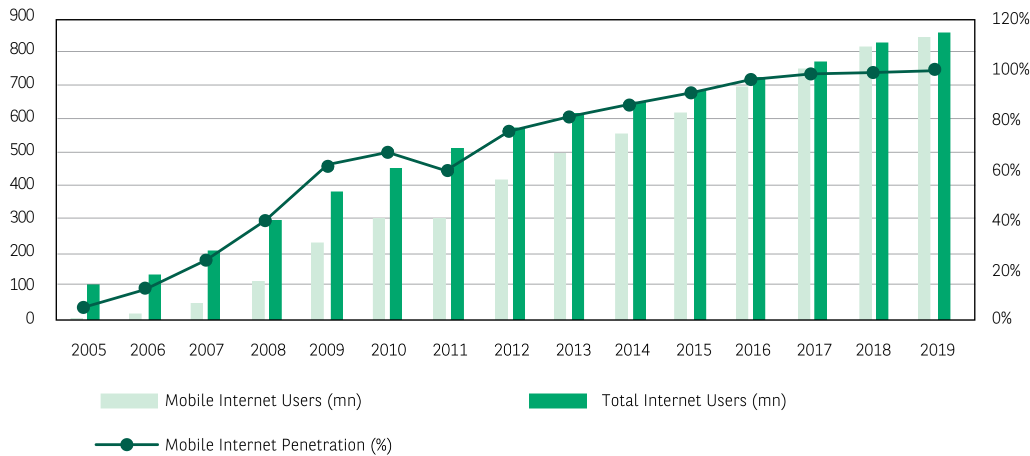
8 "Toward Universal Financial Inclusion in China: Models, Challenges and Global Lessons." A joint report by The World Bank Group and the People's Bank of China. (2015)

THE PAYMENTS GATEWAY

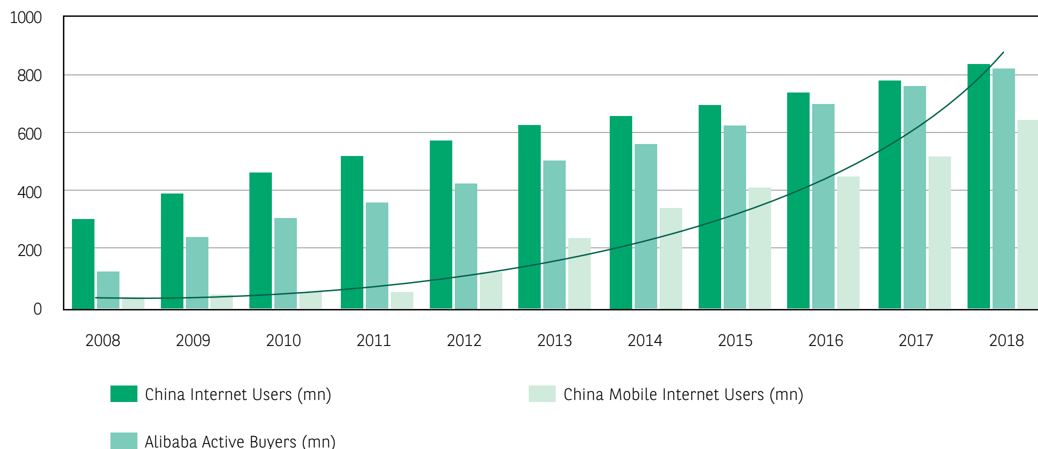
From Alibaba's first years, its founders believed the internet could "level the playing field," enabling small Chinese exporters, manufacturers and entrepreneurs to sell internationally. The company's original commerce platform sought to facilitate this, but faced a critical early hurdle: both buyer and seller lacked sufficient trust to make online transactions with total strangers a viable prospect.

In developed markets, debit and credit cards have served to bridge this issue of trust in arms' length transactions. In China at that time, however, relatively few consumers had access to debit and credit cards[9]. Alibaba's solution, Alipay, was launched in 2004, offering merchants a secure, affordable mechanism to receive online payment while providing buyers a protective escrow account function. This enabled both buyers and sellers to gain gradual comfort with transacting online, resulting in steady growth of Alibaba's active users. As rising mobile phone proliferation made internet access more affordable, Alibaba's platform activity also accelerated.

China Mobile internet Penetration



Alibaba & Mobile Internet Growth
Symbiotic Elements in China's Evolving Digital Economy



Sources: China Internet Network Information Center (CNNIC: cnnic.com.cn), Statista (statista.com) and Alibaba quarterly and annual financial reports at alibabagroup.com investor relations site, HKEX and SEC Filings.

9 UnionPay, China's national bank card monopoly, launched in 2002, so bank card penetration was still low.
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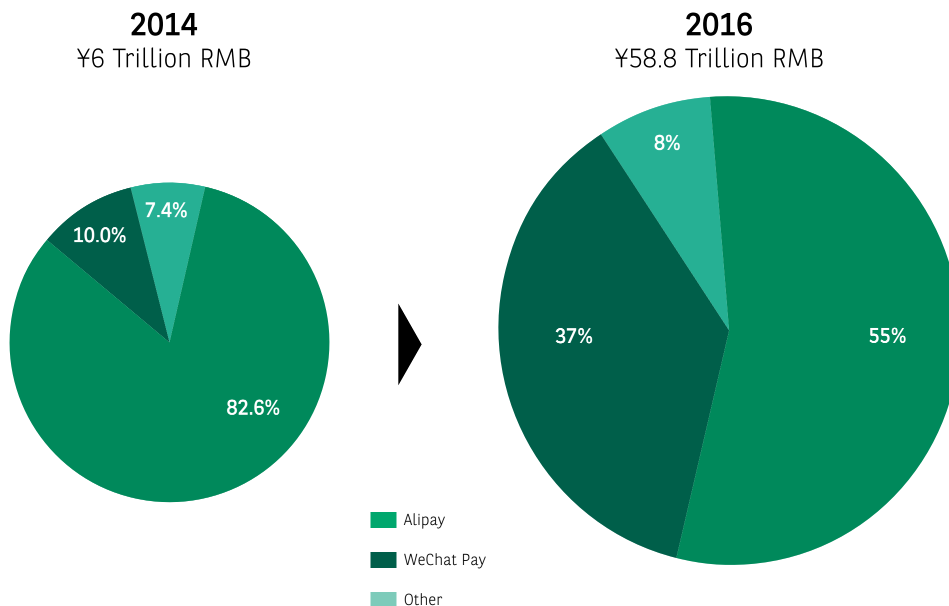
Over the next five years, while competitors had entered the arena, Alipay dominated the growing third-party mobile payment space, consistently holding over 80% share of the market. Its e-commerce activities both grew the retail pie, as it also gained greater share of it, while its payment use cases expanded to offline activities, increasing the everyday usefulness of its payment function.

By 2011, fellow internet start-up Tencent had gone mobile as well, thrusting it into the centre of the mobile boom as users flocked to the social aspect of its gaming and chat functions. Also in 2011, both Alipay and WeChat Pay launched quick response (QR) codes in association with their e-wallets, further reducing barriers to going cashless for both merchants and consumers alike. These QR codes also fed the online-to-offline (O2O) boom as mobile users sought to merge their physical world with digital conveniences.

WeChat Pay's most decisive payments moment came in 2014, when it launched its digital take on the traditional red envelope social gift concept. The "red packets" went viral almost immediately, igniting billions of nominal peer-to-peer transactions through WeChat Pay and boosting its market share in payments closer to rival Alipay.

Today, Alipay and WeChat Pay nearly evenly split the third-party payments market in China, and each have achieved over one billion active users, the majority of whom have accounts with both. This competition between two of China's most innovative and aggressive tech start-ups has given rise to a mobile payments market in size and scope that is globally unrivalled[10].

We chat pay raise



Source: iResearch

10 According to iResearch, the U.S. mobile payments market represented USD 112 billion in transactions, roughly RMB 728 billion, which equates to just 1.2% of China's mobile payments market the same year. 2016

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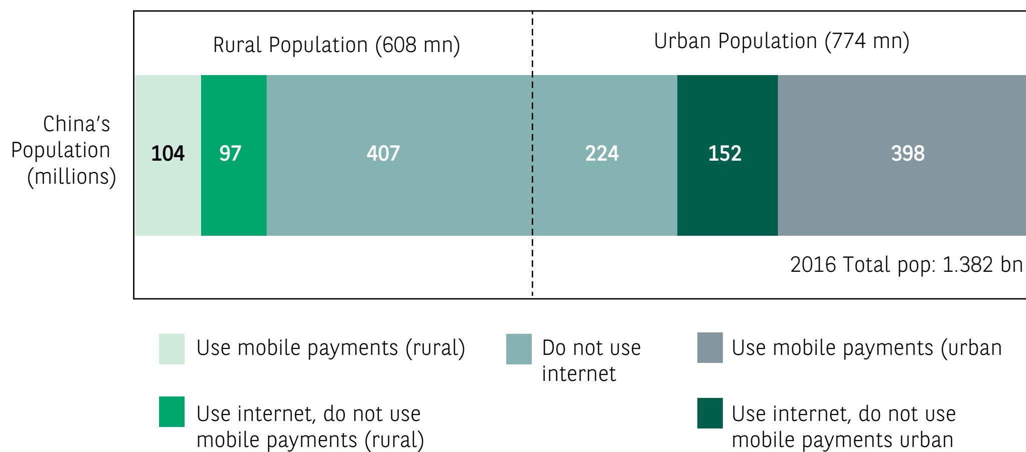
URBAN UBIQUITY TO RURAL REACH

While Alipay and WeChat Pay remain laser-focused on growing their payment use cases and market share both at home and abroad, both have also begun to harvest platform data to address the funding gaps that have persisted in China. For China's large rural population, as well as for its medium, small and micro-sized enterprises (MSMEs), access to credit has been extremely difficult. These smaller businesses, despite being vital to the Chinese economy, accounting for 80% of nationwide employment and over 60% of GDP,[11] have remained largely outside of the formal financial system purview. Much like China's financial inclusion profile is one of high account ownership yet a still unwieldy unbanked population, so too has the digital boom in China been a tale of two halves, with many rural individuals and their businesses remaining outside of the growing digital economy and the quality of life benefits China's urban residents have enjoyed.

China Internet Access, Rural vs Urban



Source: CNNIC
Note: estimates of mobile payments users comes from 2016 year-end estimate of total mobile payment users and 2015 year-end percentages of online payment users in rural areas.

This lack of digital access creates an informational blind spot such that the financial activities necessary to stitch these individuals or businesses more fully into the fabric of China's increasingly digital economy – extension of credit, mainly - have remained absent. Therefore, the data trove within Alibaba and Tencent's platforms, covering a majority of China's population, has given each the ability – perhaps also the responsibility - to address the asymmetries created by poor last-mile reach. Take Alibaba's Taobao Villages[12], which served as an early indication of the latent potential among China's rural population as regional clusters began to surface, exhibiting significant e-commerce sales activity. In 2009, there were just three such villages on Alibaba's Taobao platform. Ten years later, that number had mushroomed beyond 4 300 across 25 provinces, representing roughly half of China's rural population. Alibaba has fostered their growth by committing funds to rebuild roads, improve availability of logistics services and educate more remote populations for improved digital literacy. Not surprisingly, e-commerce sales growth rates in rural areas have begun to pick up and in 2018 reached 30%, exceeding the 24% national average.

11 China National Bureau of Statistics Report (2018)
12 Term used by Alibaba to designate villages in China that generate over RMB 10 million in e-commerce sales and have 100 or more active online shops on Taobao, operated by local residents.
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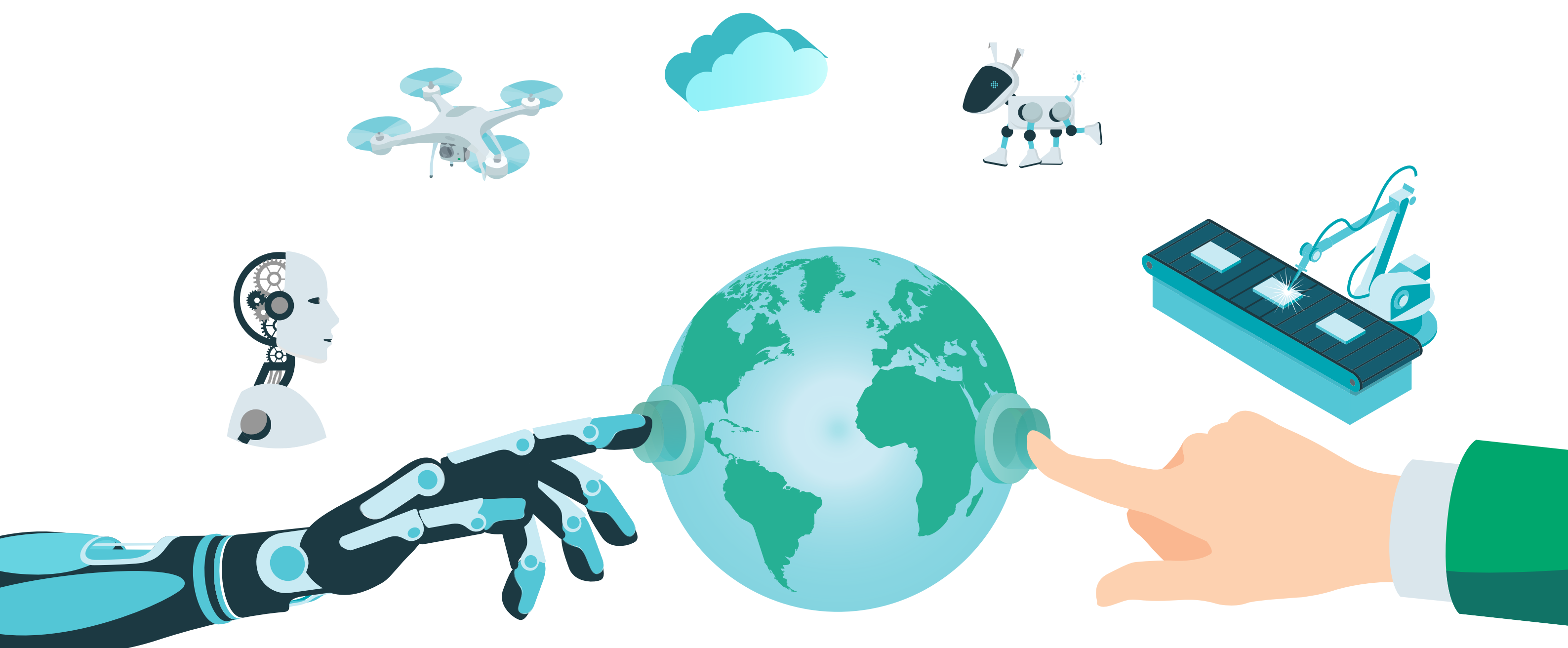
In support of the rising digital activity and productivity coming out of these regions, both Alibaba's financial arm, Ant Financial, and Tencent, applied for internet banking licences as soon as the China Banking Regulatory Commission (CBRC) first made them available in 2015. By year-end 2019, Ant Financial's MyBank had extended small-ticket loans to nearly 21 million small businesses, 80% of which had never borrowed from a bank previously. Using a purely digital application process based on 3 000 variables aggregated and analysed from within Alibaba's ecosystem, approval can be completed within minutes. Similarly, Tencent's WeBank has been offering microloans to consumers and MSME's through its WeiLiDai and WeiYeDai products, respectively, drawing upon its transaction and social data. WeBank's borrowers as of 2018 included roughly 100 million previously underserved customers.

While these approaches are still in an early stage, small in size, and have yet to weather a full economic cycle, as of mid-2019 both MyBank and WeBank reported low non-performing loan ratios of around 1%, well below the industry average. Furthermore, both are making available access to their platform data, albeit not directly. Alibaba provides for external parties a credit scoring system, Sesame, based on its platform data and analytics, while WeBank largely syndicates out to local lenders the loans that it originates. So, the user information amassed over the past decade and a half by China's digital payments duopoly, which grows in both depth and breadth daily, is being extended with the ultimate benefit accruing to users, helping them become more financially visible and therefore more economically viable.

There is no question that growing banking system involvement by China's gigantic, rapidly evolving *techpreneurs* has attracted increasing regulatory scrutiny. And for good reason: pockets of involvement such as peer-to-peer (P2P) lending have revealed harmful or negative practices for both borrowers and lenders.

However, the innovation, competition and drive to resolve unmet needs has brought overwhelmingly more positives than negatives to the system. In fact, China has kept a relatively liberal "wait and see" stance for most of the prior decade, likely in recognition of the benefits the rapid private sector advancements may bring to the state. In its latest Plan for Advancing the Development of Financial Inclusion (2016–2020), China's recognition of the critical importance of *commercial sustainability* in advancing its policies seems to indicate a secure and potentially increasing role for the private sector as its financial services industry evolves.



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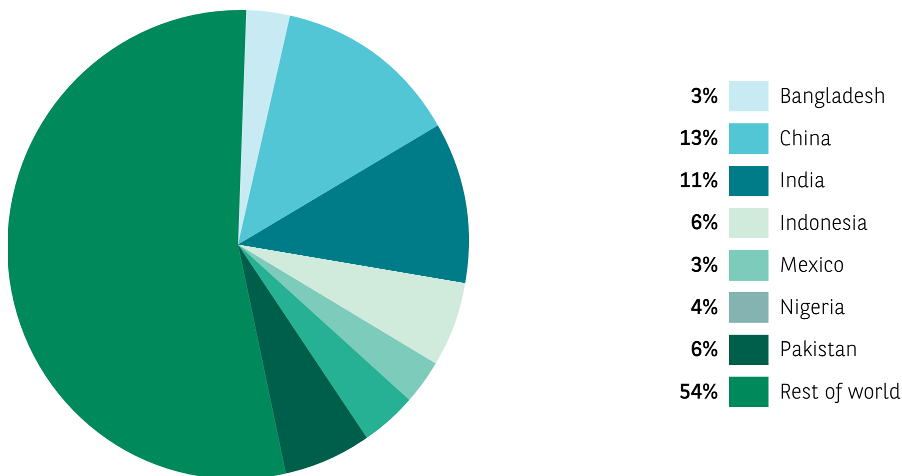
SOWING THE SEEDS OF CHANGE

The early efforts, innovative thinking and tireless dedication of these few seminal EM fintech players have indelibly altered the opportunities for both companies and consumers in these markets. Today, fintech is attracting enormous amounts of capital globally. While much will fund further positive development, which is cause for celebration, there is also reason to be cautious. Those who have worked closely for years on the financial inclusion agenda note that not all technologically enabled financial service offerings are beneficial to positive development. As increasing ranks of players vie for their slice of the growth, the extension of credit without proper oversight or risk controls has had deleterious effects.

Furthermore, while it would be tempting to expect that models like M-PESA would spread like wildfire throughout other nations with similarly low levels of banking system reach and high mobile phone penetration, it has not. For example, in Nigeria – Africa's largest economy – mobile money has been available and growing, but has not scaled as rapidly as M-PESA, which now spans seven countries. Perhaps this is due to overly conservative policy, which until last year kept Nigeria's main telecom operators from acquiring mobile money licences. It will be fascinating to see how this develops for this key market in Africa, particularly as it stood among the globe's top seven unbanked nations as of the latest Findex.

Adults without an account by economy (%), 2017



Source: Global Demirguc-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar and Jake Hess. 2018. The Global Findex Database 2017: *Measuring Financial Inclusion and the Fintech Revolution*. 2018

Furthermore, while China topped the global list of unbanked as of 2017, it will be interesting to see what the next Findex reveals about the impact China's legions of fintech players – which have sprung up alongside Ant Financial and Tencent in recent years - have had in advancing development. Their growth and success has attracted not only other players, but a tremendous amount of venture capital. In a 2018 Global Fintech Hub report authored jointly by the University of Cambridge and Zhejiang University, four Chinese cities ranked among the top 10 by number of fintech companies with over USD 50 million in venture capital investments.

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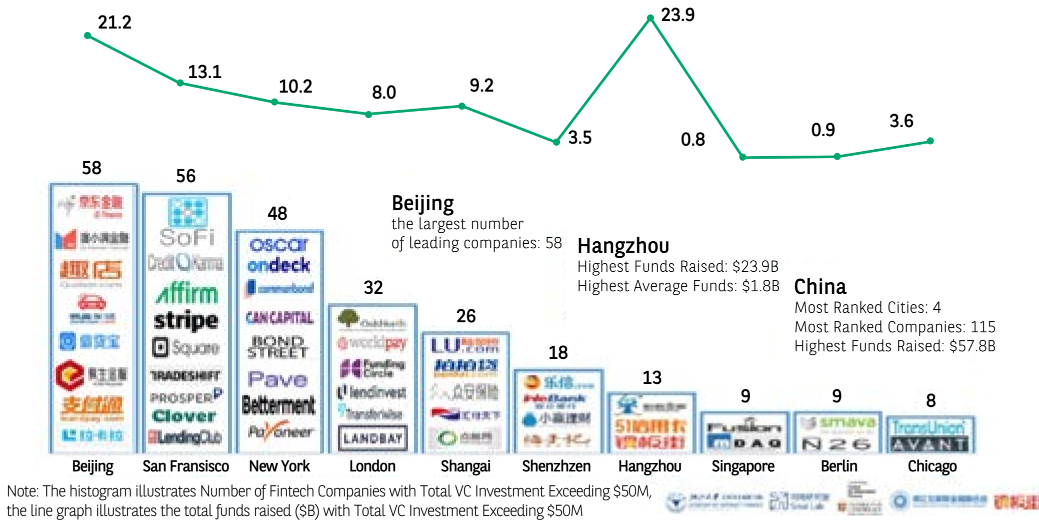
China fintech incubator

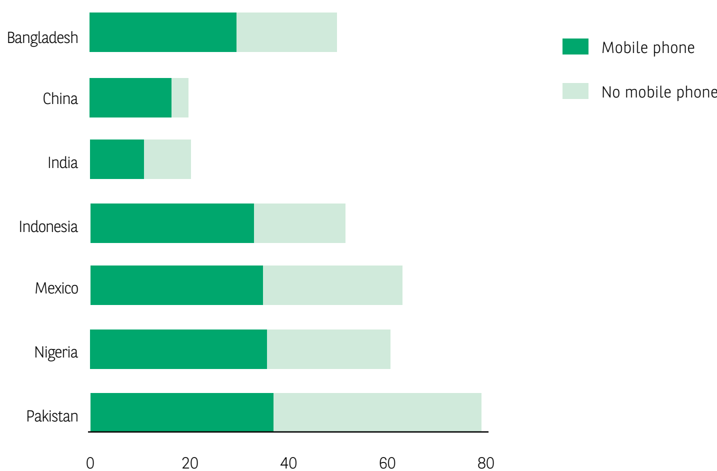


Note: The histogram illustrates Number of Fintech Companies with Total VC Investment Exceeding $50M, the line graph illustrates the total funds raised ($B) with Total VC Investment Exceeding $50M

Source: The Future of Finance is Emerging: New Hubs, New Landscapes. Global Fintech Hub Report. 2018. Launched by Zhejiang University, Academy of Internet Finance, Sinai Lab, University of Cambridge Judge School of Business' Centre for Alternative Finance, and Zhejiang Association of Internet Finance.

According to the same report, Ant Financial's fundraising had dwarfed all other fintech rivals, reaching nearly four times the amount of the second highest fundraiser. Yet, increasingly, these resources are being deployed outside of China. So far, Ant has invested in over 160 companies including India's mobile payments leader Paytm. Late last year it announced a further USD 1 billion fund targeting investments in Southeast Asia. Tencent too has been investing heavily outside of China, into many of these same regions. According to Deal Street Asia there are at least 11 e-wallet brands in Southeast Asia backed by either Ant or Tencent strategic investments, jockeying alongside homegrown superapps Grab and Gojek in the payments and O2O space. Whether it be established players sowing the seeds of expansion or home grown start-ups, the most unbanked regions represent incredibly fertile ground for fintech growth and its positive ripple effect, particularly as mobile phone penetration is high and rising across these regions.

Mobile phone in unbanked regions
Adults without an account (%), 2017



Source: Global Findex database, Gallup World Poll 2017

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India is a particularly compelling case, with the second most unbanked population behind China, at over 190 million adults, and a government with a clear focus on digital and financial inclusion. Its measures over recent years aimed at bringing informal financial sector activity into a more visible, digital realm have seemed extreme and perhaps disruptive, but have also been quite effective.[13] According to the Reserve Bank of India (RBI) digital transactions from 2017 to 2019 expanded ~140%, and the RBI have targeted a four-fold increase in transaction volumes by 2021. Of particular note has been its recent establishment of a digital identity program "Aadhaar", a biometric form of national registration, which provides a critical first step to making more visible those that had been invisible in the system. As proven by payments gateways in China and by M-PESA in Africa, digital identity, no matter how rudimentary, is foundational to building a financial profile and ultimately being able to access credit.

Further, Reliance Industries, among India's largest corporations, has tackled the distribution side of the equation, investing heavily in affordable 4G wireless services and devices which now are proliferating rapidly throughout the country, including in rural regions where Internet access previously had not been possible. It is no surprise that China's tech giants are courting this market and vying with US and global tech peers for a foothold, given India's young and growing demographic represents a longer and perhaps more robust growth runway than even China.

CONCLUSION

We find similar elements across the emerging markets lining up for continued proliferation and penetration of fintech, as the factors that would be considered disruptive in developed markets represent for the developing markets more remedy than rupture. From Asia to Latin America, Africa to Emerging Europe, fintech solutions are percolating, broadening and deepening the global drive to democratize access to basic services.

Each player brings innovation and competitive energy to spaces that for too long lay dormant. This is a pivotal moment for financial inclusion among EMs, and the coming decade holds tremendous promise, both for the fintech players profiled here as well as those that have taken up their mantle, forging ahead to solve problems, where others have shied away, creating value for the whole rather than just their part.

13 India's demonetisation drive in 2016 removed INR 500 and INR 1 000 notes from the system, wiping out ~90% of cash from the economy, pushing the public to rapidly switch from primarily cash-based transactions to digital.

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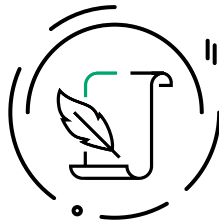

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