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Synergy and disruption: Ten trends shaping fintech

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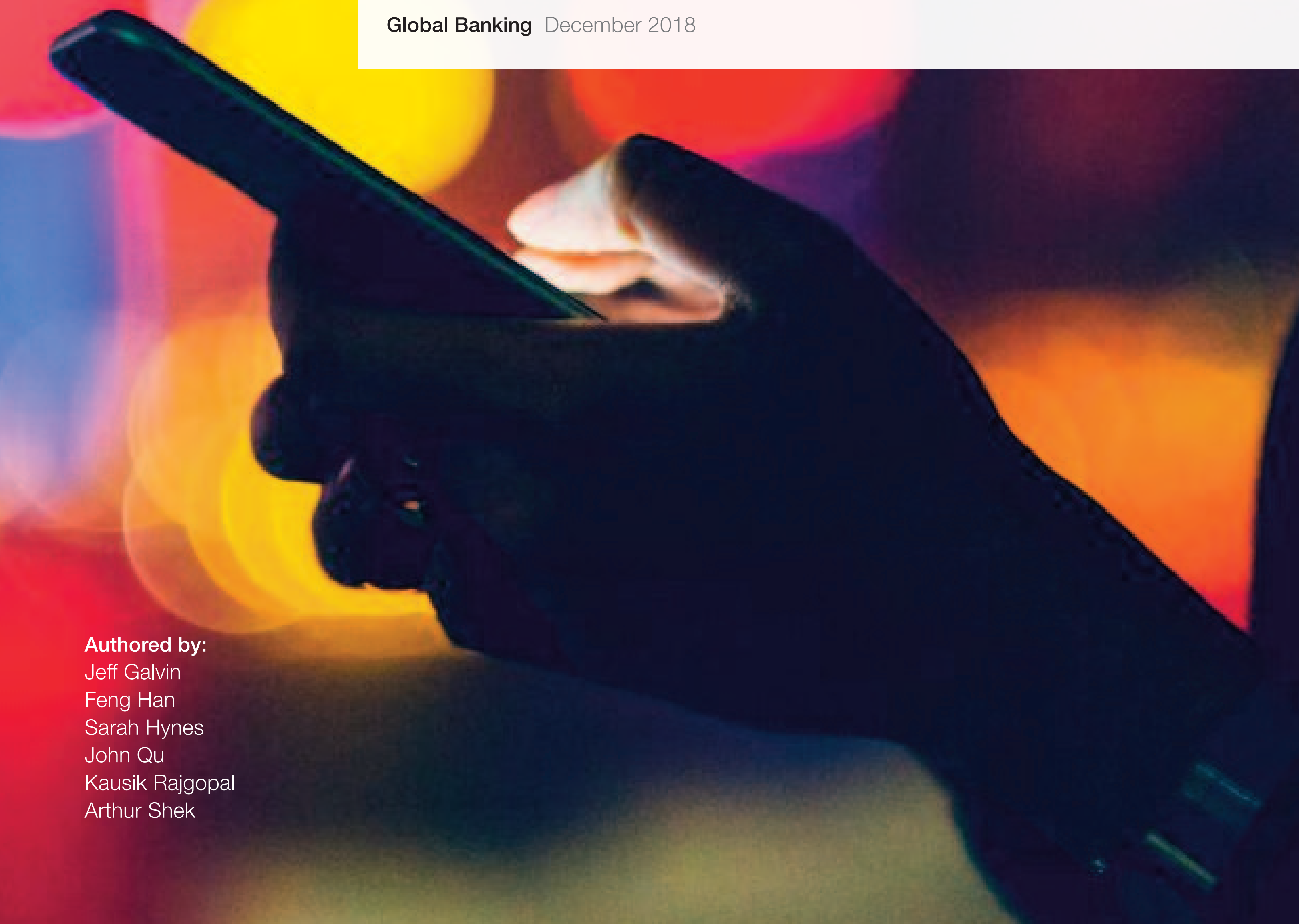

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Fintech, the portmanteau of *finance* and *technology*, represents the collision of two worlds—and the evolution of the use of technology in financial services. Financial services and technology are locked in a firm embrace, and with this union comes both disruption and synergies.

Financial institutions are engaging with fintech startups either as investors or through strategic partnerships. Almost 80 percent of financial institutions have entered into fintech partnerships, according to McKinsey Panorama. Meanwhile, global venture capital (VC) fintech investment in 2018 has already reached $30.8 billion, up from $1.8 billion in 2011 (Exhibit 1, next page).

Average deal size is growing as well, particularly in Asia, where it is almost twice as large as the global average, due largely to a number of mega deals.[1] The investing public is also enamored of fintechs: Zhong An made waves with its $11 billion IPO valuation last year, while Ant Financial is reported to be raising a pre-IPO round valuing the company at $150 billion.[2]

However, the aggregate investment figures bely a more nuanced set of developments. "Fintech" covers a range of different models. We see four distinct variants, each operating in different niches, with different modus operandi (Exhibit 2, page 3):

- ***Fintechs* as new entrants, startups, and attackers** looking to enter financial services using new approaches and technologies. These firms seek to build economic models similar to those of banks, often targeting a niche or particular product. The primary challenge for fintechs in this group is the cost of customer acquisition.
- ***Fintechs* as incumbent financial institutions** that are investing significantly in technology to improve performance, respond to competitive threats, and capture investment and partnership opportunities.
- ***Fintechs* as ecosystems orchestrated by large technology companies** which offer financial services both to enhance existing platforms (e.g., AliPay supporting Alibaba's e-commerce offering) and to monetize current user data or relationships. Because of the very high level of engagement these technology platforms have with their users, they often have a tremendous customer acquisition cost advantage relative to other firms.
- ***Fintechs* as infrastructure providers** selling services to financial institutions to help them digitize their technology stacks and improve risk management and customer experience.

We believe the future will develop in different ways for these varying types of fintechs, and that they will face very different hurdles. For instance, while infrastructure providers will often succeed or fail based on product or technical capabilities, consumer-oriented startups most commonly grapple with customer acquisition costs.

For incumbent financial institutions, the biggest hurdles relate to organization and skills as much as investing in technology at scale. Shifting traditional mindsets and operating models to deliver digital journeys at a start-up pace is no easy feat for a financial behemoth.

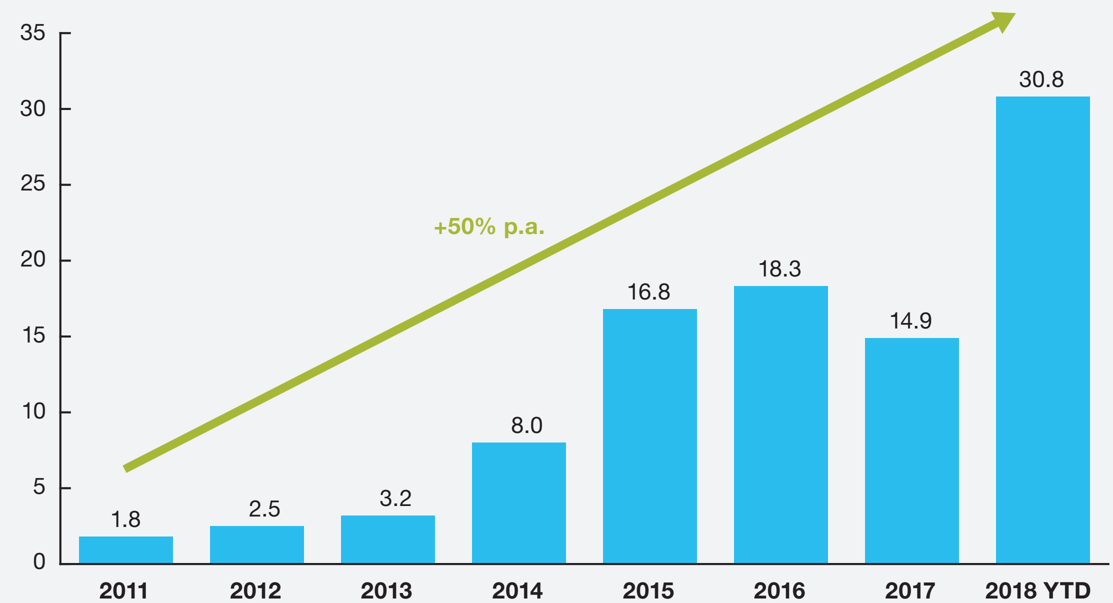
[1] Source: McKinsey's analysis based on CB Insights data.

[2] "Ant Financial reportedly raising $9 billion at a $150 billion valuation," CNBC.com, April 10, 2018.

Exhibit 1

Global fintech investment has grown dramatically in recent years.

Global venture capital investment in fintechs
$ billion



Source: CB Insights; McKinsey analysis

For established technology players entering the fintech ecosystem, regulatory challenges may prove a hurdle. The “move fast and break things” approach that disrupted the advertising industry is unlikely to be tolerated in financial services. And concerns about monopolistic behavior could well prevent Western tech giants from developing the sort of integrated financial services offerings we see from Ant Financial or Tencent in China.

To cut through the headlines and buzzwords that saturate the discussion of fintechs, we now take a closer look at current trends, and the implications for both incumbents and attackers.

Ten global fintech trends

1. High level of regional variation in fintech disruption

Winners in fintech are primarily emerging at a regional rather than global level, similar to traditional retail banking. Regulatory complexity within countries and across regions is contributing to regional “winner take most” outcomes for disrupters. Firms need to invest more in regional compliance rather than launching a global effort on day one.

For example, in money transfer, regulatory approval in a single EU country can be passported

Exhibit 2

The broader fintech category can be segmented into four variants.

Origin	**Technology**	**Infrastructure providers** seeking to help financial institutions digitize and modernize their technology stacks Examples: FNZ, Marqeta, Onfido	**Large technology ecosystems** using financial services to strengthen relationships with users Examples: Apple, Ant Financial, Tencent
	Financial services	**New entrants, startups, and attackers** seeking to enter financial services using new technologies. Examples: SoFi, TransferWise, LendingClub	**Incumbent financial institutions** making significant investments in technology to lift their game Examples: Wells Fargo, Ping An
		Low	**High**
		Scale	

Source: McKinsey analysis

across the other EU countries. This encouraged many cross-border payments startups, such as WorldRemit and TransferWise in the UK, to expand into neighboring European countries before moving across the Atlantic, which requires additional regulatory investment. Individual US states require licenses for money transfer, which makes US expansion more cumbersome for European operators. This also explains why money-transfer operators in the US, such as Xoom and Remitly, were slower to come to Europe and are not yet operating in Asia as sending markets.

In China, where regulation has been more accommodating, ecosystems were formed by technology giants such as Ant Financial, which have directly entered and are reshaping many financial sectors including digital payments, loans, and wealth and asset management. In the US and Europe, which have stringent regulatory requirements and well-established banking offerings, efforts have been more fragmented and large technology players have been limited to payments offerings and some small-scale lending offerings.

As fintech markets mature, attackers that have established a regional presence are now eyeing international expansion. To successfully enter new markets, they must adapt to new sets of market dynamics and government regulations and select new markets based on a clear understanding of regional variations.

2. AI is a meaningful evolution, not a great leap forward for fintechs

The buzz surrounding artificial intelligence (AI) applications in fintech is intense, but to date few standalone use cases have been scaled and monetized. Rather, we see more advanced modeling techniques, such as machine learning, supplementing traditional analytics in fintech. While AI shows great promise, it is likely to be more of an evolution than a great leap forward into new data sources and methods.

For example, many credit underwriting attackers claim to use AI to analyze vast alternative data sources—ranging from mobile phone numbers to social media activity—but they have not yet displaced traditional credit underwriting methods. In many cases, traditional markers such as repayment history are still better predictors of creditworthiness than social media behavior, particularly in markets where credit histories (and dedicated agencies to monitor them) are well established. As a result, while consumer lending platforms are increasingly incorporating iterative machine-learning approaches to steadily improve existing performance, they do not need to take a quantum leap in AI to do so.

At least in the short term, winners may not be characterized by completely new modeling approaches or the most complex algorithms, but by the ability to combine advanced analytics and distinctive data sources with their existing business fundamentals.

3. Good execution and solid business models can trump exotic technology

The most successful fintechs have evolved into execution machines that rapidly deliver innovative products, with dynamic digital marketing campaigns to match. Notably, winning startups often succeed without using completely new technology. Data-driven iteration, coupled with early and continuous user testing, has led to robust product-to-market fit for these firms.

While cutting-edge technology is exciting, it can also be complex; demand is also untested, which can result in long lead times with little opportunity to validate the business model. As an example, consider cross-border money transfer, a market that has traditionally been dominated by large incumbents such as Western Union. Despite much hype about fintech—particularly blockchain-based solutions—entering the space, no startup has gained anywhere near the scale of TransferWise, a digital business built on top of traditional payments rails, rather than a reinvention using the latest tech. TransferWise used great user experience and distinctive marketing campaigns to grow rapidly, enabling it to successfully disrupt the space, and to report £117 million in revenues in March 2018.[3]

4. Scrutiny of business fundamentals is increasing as funding grows more selective

Years into the fintech boom, after many highs and lows, investors are becoming more selective. While overall funding remains at historically high levels, technology investors globally are increasingly investing in proven, later-stage companies that have shown promise in attaining meaningful scale and profits. Data compiled by PitchBook show that despite a clear increase in total VC funding,

[3] “Fintech start-up TransferWise reports second year of profit, revenue almost doubles”, CNBC.com, September 10, 2018.

investments in early-stage fintechs decreased by more than half from a peak of more than 13,000 deals in 2014, to around 6,000 in 2017.[4] The bar for funding is quickly rising, and companies with no clear path to monetization are going to have a harder time meeting it.

Indeed, several well-known and well-capitalized fintechs have yet to develop a sustainable business model and may need to find a path to more meaningful revenues quickly to continue to attract capital. This is especially evident for challenger digital banks. Some have raised significant sums but still struggle to monetize their products effectively; others have not yet delivered a current account product due to complications around licenses and regulations.

Customer adoption of truly innovative business models takes time, and smaller-scale attackers may require heavy infrastructure investments over a long period before revenues start coming in. Blockchain start-ups, for example, are attracting a significant amount of venture capital with radically new infrastructures for payments and other sectors. However, incumbents remain cautious, with blockchain remaining in prototype mode—and the leap to revenue-generation has yet to take place.

5. Great user experience is no longer enough

Back when banks had cumbersome websites that didn't render on mobile, it was easy for fintechs to win over customers by building a half-decent app with a great user experience (UX). Today, most financial institutions have transformed their retail user experience, offering full mobile functionality with best-in-class design principles. Great UX is now the norm. Customers, as a result, require more reasons to switch to new fintech offerings.

Robinhood, a US-based stock-trading fintech, simplified stock trading by offering zero commissions through its easy-to-use mobile app with solid UX. But first, it built its user base with free product offerings. It initially made money by investing users' cash balances. In late 2016, the company launched a successful premium offering called "Robinhood Gold," which added charges for margin and out-of-hours trading.

Simple interfaces, ease of use, and free stuff no longer equate to a viable business model. Attackers now need to find more robust ways to differentiate themselves from incumbents.

6.Incumbents can, and do, strike back

In general, incumbents were initially slow to respond directly to fintech attackers, perhaps for fear of cannibalizing strong legacy franchises. Many started by trialing digital offerings in non-core businesses or geographical areas, where they could take more risks. Retail banks have led the charge in upgrading digital experiences to match fintech in their core banking products. For example, Wells Fargo recently added a predictive banking feature that analyzes account information and customer actions to provide tailored financial guidance and insights, with over 50 types of prompts.

Goldman Sachs' Marcus consumer lending franchise is perhaps the most high-profile push into digital by an investment bank. Marcus emerged as an unlikely entrant into consumer finance in 2016, but recently surpassed $3 billion in US consumer lending volumes.[5] Goldman used established digital sales and marketing

[4] "There's an implosion of early-stage VC funding, and no one's talking about it," TechCrunch.com, December 2017.

techniques to become a leading provider of consumer finance in a short period of time. It hit $1 billion in loans in just eight months while many competitors took over a year. Marcus' success in the US led it to launch in the UK in September 2018, where it captured 100,000 customers for its savings product in the first month[6]—further evidence that while technical innovation is important, a sound business model remains critical.

Other investment banks have focused more on robo-advisory services in their digital efforts. In 2017, Morgan Stanley launched Access Investing, a digital wealth management platform in the US with a minimum investment threshold of $5,000; the same year, Merrill Lynch (Merrill Edge Guided Investing) and Deutsche Bank (Robin) launched similar offerings. Vanguard was even earlier to react to the trend, using their existing brand and customer base to grow their offerings rapidly since launching in 2015; digital assets under management reportedly reached $120 billion in 2018.[7]

7. More attackers and incumbents are partnering

An increasing number of incumbents and fintechs are realizing the benefits of combining strengths in partnership models. As they reach saturation point in their native digital marketing channels, many fintechs are now actively looking for partnerships to grow their business. They bring to the table their higher speed and risk tolerance, and flexibility in reacting to market changes. Larger ecosystem firms also bring broad and sticky customer bases from their core internet businesses.

Incumbent financial institutions are more cautious when it comes to partnering, especially in their core current account and mortgage products. But their large customer data sets, amassed over long periods of time, are highly attractive attributes for fintechs. Further, incumbents' compliance and regulatory competencies can be highly valuable for newer, smaller entrants. We expect both partnerships and acquisitions to increase as a result.

A number of global banks are already on the partnership path. JPMorgan's digital strategy includes recent partnerships with fintechs including OnDeck, a digital small business lender, Roostify, a mortgage fintech, and Symphony, a secure messaging app. In 2015, ING launched what it called "FinTech Village," an accelerator for startups in Belgium, led by a dedicated head of global fintech. ING Ventures, launched in 2017, is a €300 million fund focused on fintech investing, and has invested in or partnered with a total of 115 startups over the last three years.[8] In some instances, ING has built strategic partnerships with the companies they invested in, such as the automated online lending platform Kabbage.

China's financial institutions tend to take a different approach, partnering with large technology ecosystem firms as opposed to smaller fintechs. Each of China's "big four"

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5 "Goldman Sachs so far has loaned $3 billion to Main Street America," Yahoo Finance, April 17, 2018.

6 "Goldman Sachs signs 100,000 customers to its new British bank Marcus, in just over a month—and now plans a cash ISA," thisismoney.co.uk, November 3, 2018.

7 "Small Robo-Advisors Battle Vanguard, Charles Schwab," Barron's, December 4, 2018.

8 "ING launches ING Ventures: a EUR 300 million fintech fund," globalnewswire.com, October 5, 2017.

banks[9] has partnered with at least one ecosystem firm in 2017. Examples include a joint fintech laboratory launched by Bank of China with Tencent; and an agreement between China Construction Bank, Alibaba, and Ant Financial to digitize customer banking experiences.

8. Infrastructure fintechs: Potential is high, sales cycles are long

Like a giant tower of Jenga pieces, an enterprise's legacy IT stack has many building blocks, some purchased off-the-shelf and some developed in-house. As in Jenga, removing or replacing "pieces" of the IT stack can be risky and complicated. Digital innovation is often hindered by legacy IT, particularly the core banking system (CBS), and the costs of changes are high.

Several CBS fintechs have emerged, seeing legacy IT issues as a golden opportunity for disruption. Like those providing "picks and shovels" to miners during a gold rush, they are not seeking to disrupt incumbents, but to build a profitable business by helping banks upgrade their technology capabilities in a modular, open-API world. Many financial institutions are evaluating replacing their core IT systems in the next five to ten years. However, for now, the CBS fintechs are finding business with smaller or newer banks. New10, the digital bank launched in the Netherlands by ABN Amro in 2017, used Mambu, an infrastructure attacker fintech, for their CBS.

CBS fintechs may face an uphill battle with larger institutions, given long sales cycles and risk aversion, particularly for something as important as core infrastructure. Large banks' traditional procurement and onboarding process for new vendors or applications may present a challenge to newer fintechs that lack a track record and compliance rigor.

CBS fintechs are likely to continue, therefore, to target smaller banks or focus on non-core areas. This should allow the fintechs to prove their concepts and build their reputations, while fine-tuning their product offerings for larger customers.

9. There is a tentative return to public markets

As fintechs mature, at some point they must decide whether to go public. While both investors and employees require a path to liquidity, many fintech founder-CEOs have preferred to stay in the private market to avoid the burdens of public listings—as well as the batterings received by other fintechs that tested the IPO market.

Many peer-to-peer (P2P) lending fintechs—among the earliest to list in the US—saw valuations drop drastically in the public market. A number of Chinese lending fintechs that listed on the NYSE and Nasdaq in 2017 subsequently traded much lower than their IPO prices, driven by reports of bad loans and unfavorable regulations in China.

However, there are signs of a change in mood. Adyen, the Dutch payments fintech, listed in June 2018, and has seen its share price double. Funding Circle, the UK P2P lender, listed in October 2018. Despite the lackluster performance of the aforementioned Chinese fintech lenders, another Chinese P2P lender, X Financial, listed in September this year. With fintechs scaling and on the path to profitability,

[9] Industrial & Commercial Bank of China, China Construction Bank, Bank of China, and Agricultural Bank of China.

Exhibit 3

Leading Chinese fintechs are usually part of an internet giants' ecosystems spanning the full fintech spectrum.

	Europe and US	China					
	Wide array of successful, focused fintechs	**Large fintechs usually part of broader ecosystem**				**Relatively few niche, standalone fintechs**	
		Ant Financial	Tencent	Ping An	JD.com		
Payments	PayPal Stripe	Alipay	Tenpay	E-wallet	JD Pay	99Bill Lakala Ping ++	
Wealth management	Betterment Wealthfront	Yu'e Bao	Li Cai Tong	LU.com	JD Finance JD Expert	CreditEase Golden Axe Wacai	Suishouji
Financing	LendingClub SoFi	Ant Check Later	Weilidai	Ping An Orange	JD Finance	Qudian.com ppdai.com Dianrong.com	Rong360 Yirendai
Insurance	Oscar Metromile	Zhong An Insurance	WeSure Zhong An Insurance	Ping An Insurance Zhong An Insurance			
Banking	Atom	MYbank	WeBank	Ping An Orange			
Credit scoring	Credit Karma	Zhima Credit	Tencent Credit	LU.com	JD Credit		

Source: Press search; McKinsey interviews

executives will have to balance higher liquidity and greater public scrutiny as they consider IPOs.

10. Chinese fintech ecosystems have scaled and innovated faster than their counterparts in the West

China's fintech ecosystems are structurally different from their counterparts in the US and Europe. Outside China, the most successful fintechs are typically attackers that have focused on one vertical, such as payments, lending, or wealth management, deepening their core offering and then expanding geographically. In the US, for example, PayPal and Stripe focus mainly on online payments; Betterment and Wealthfront offer digital wealth management; and LendingClub and Affirm are alternative lenders—all proven strategies.

in China, the most successful fintechs have been tech giants which have built financial ecosystems on the back of high-engagement consumer platforms (Exhibit 3). Ant Financial—built on the back of Alibaba's e-commerce platform—offers one-stop business-to-consumer fintech solutions, with products such as Alipay for online payments, Yu'e bao for investments from the Alipay wallet, MYbank for digital banking and lending, and many others. Similarly, Tencent provides a wide range of digital financial services on its pre-existing social platform.

These ecosystems have innovated and scaled rapidly. The technology giants that orchestrate them have access to enormous amounts of data to develop and refine their offerings (e.g., tailoring services to different user segments based on their lifestyle and habits) and can assess risk more effectively based on customer social media profiles (Tencent's WeChat messaging app) or spending behaviors (Alibaba's Tmall and Taobao ecommerce sites).

While there are comparatively fewer standalone players in China, those that are successful are by no means small. Fintech lenders Qudian and PPdai went public in 2017 and listed at $7.9 billion and $3.9 billion market cap at IPO, respectively.

Three trends will shape China's digital financial services landscape. First, the large ecosystem players will continue to use technology and digital channels to roll out their financial services offerings, either by going direct-to-consumer or, increasingly, by providing white-label fintech-as-a-service offerings to small and medium-sized financial institutions.

Secondly, as in the West, we expect to see traditional banks and insurance companies investing heavily in digital offerings and leveraging their brands and existing customer relationships to fight back more successfully against pure digital players. Ping An is the most advanced of the traditional financial services players in terms of investing heavily in a range of digital offerings and beginning to create a digital ecosystem of its own.

Third, increasing government regulation will likely gradually weed out noncompliant or less competitive smaller fintechs. The government has tightened control in payments, P2P lending, and robo-advisory in the past year, and the trend is expected to continue. This could lead to further consolidation in the next one or two years—more good news for the large technology firms seeking to dominate the landscape.

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Fintech has evolved considerably in the last few years and continues to change rapidly. Indeed, the trends outlined in this paper will likely give way quickly to new movements, as new winners emerge and existing leaders mature and diversify.

Fintech investors must be very selective in deploying capital, as we approach the possible endgame in this wave for some sectors and companies. With large technology companies knocking at their doors, incumbent financial institutions should proactively engage with fintech disruption, whether by building their own capabilities or by partnering or acquiring. For fintech attackers and infrastructure providers, the road to success is not easy. As the fintech markets mature, firms from the four categories of fintechs will compete directly in some cases, and join forces in others.

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