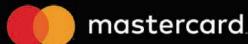


What to watch for in FinTech in 2019

CB Insights in partnership with Mastercard Start Path



Start Path is Mastercard's award winning program for elite, later-stage startups from around the world. Five years of scouring the globe for the best startups has given us great insight into just how impactful FinTechs will be in transforming banking and commerce.

Mastercard is continually striving to add value for our customers, and through these reports we aim to bring you the most up to date trends in the FinTech and startup landscape.

What to watch for in FinTech in 2019

By: CB Insights in association with Mastercard.

This research brief was created by CB Insights in partnership with Mastercard Start Path to provide an insight into the latest trends impacting FinTech.

2018 was a banner year for FinTech. Key drivers of FinTech growth included record levels of deals and financing, the emergence of new global tech hubs, and favorable regulatory tailwinds. The combination of these factors positions the FinTech sector to further digitize the customer journey, make inroads in new and adjacent markets, and collaborate across the industry in 2019.

For FinTech startups, the developments of 2018 have lowered the barriers for market entry and enabled established recent entrants to expand into new verticals and markets.

For incumbent firms, FinTech startups are putting pressure on legacy infrastructure, customer acquisition, and business models. However, in 2018 incumbents did not sit idly by. Many financial services firms established

their own digital strategies by investing in, partnering with, or acquiring FinTech startups; or by bringing the technology in-house.

A few of the 2019 trends we're anticipating can help to address several questions, such as:

- How is artificial intelligence (AI) helping banks comply with new regulation?
- What does Open Banking mean for consumers and what markets could it spread to next?
- Why are SMBs the next battleground for FinTech?

In this brief, we surface three FinTech predictions, a few technology trends to watch, and how Mastercard Start Path is helping drive the industry forward through FinTech innovation.

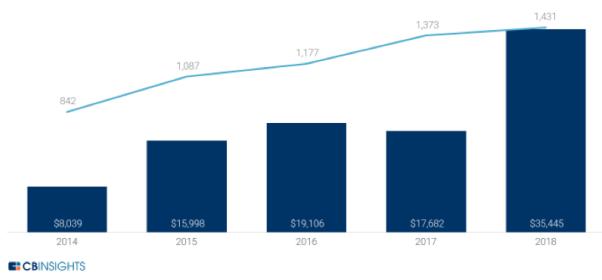


A QUICK LOOK BACK AT 2018

As of November 2018, global FinTech investing reached \$35.5B across 1,431 deals, a new annual high. Funding surged on the back of a record number of mega-rounds, including Ant Financial's unprecedented \$14B investment.

Global FinTech deals set a new annual record year

Annual VC-backed global FinTech deals and financing, 2013 – 2018 YTD (11/28/18), (\$M)

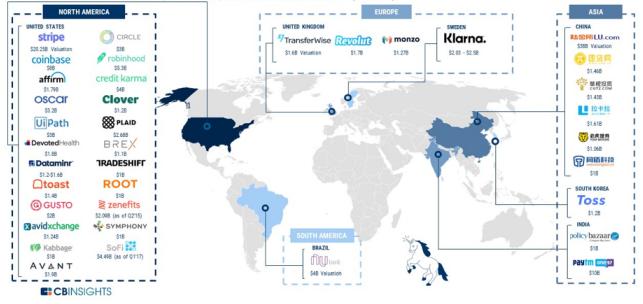


2018 has already minted 15 new unicorns including digital banking startup Revolut, a Mastercard Start Path portfolio company, as well as POS payments provider Toast, among others.

Globally, 37 privately-held FinTech unicorns have a combined valuation of approximately \$142.17B. Several startups raised mega-round investments, boosted their valuations, and will use funding to expand into adjacent products. Payroll provider Gusto, for example, entered the lending marketplace, and Revolut will look to go East in 2019 with recent approvals of remittance charters in Singapore and Japan.

37 fintech unicorns valued at \$142.17B

Global VC-backed fintech companies with a private market valuation of \$1B+ (12/11/18)

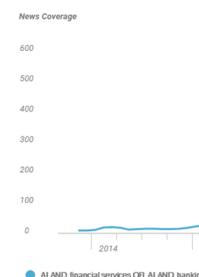


Going into 2019, more companies are poised to become unicorns as there is no shortage of well-funded, innovative FinTechs driving the trends we investigate below.

TREND 1: BANKS HAVE THEIR AI MOMENT

One hotspot for FinTech funding in 2018 that seems destined to continue in 2019 is artificial intelligence (AI). As the chart below highlights, news mentions around the convergence of AI and financial services have continued to grow to new heights.

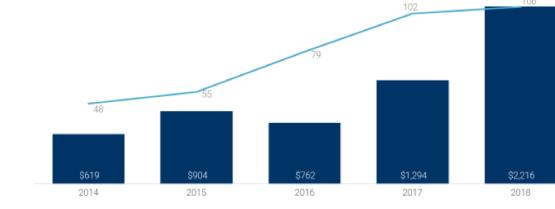
News Coverage



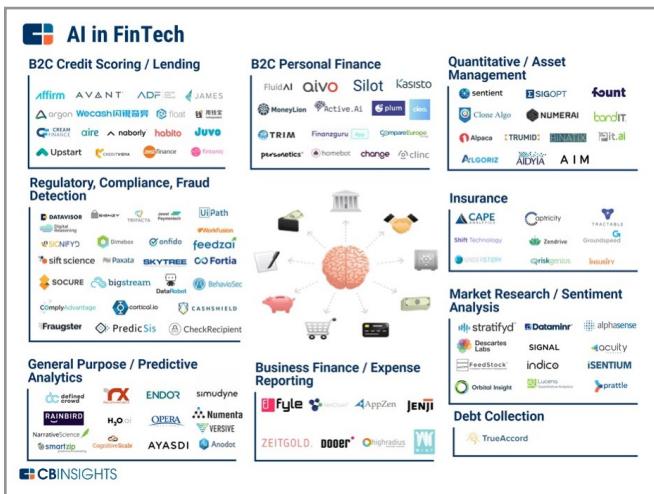
While there has been a lot of noise around AI's potential, the data supports that investors are excited about the impact AI could have across the financial services industry - so much so that they are literally doubling their AI bets. VC-backed FinTech AI companies have raised approximately \$2.22B in funding across 106 investments in 2018 YTD (11/28/2018).

While AI is a fraction of total FinTech funding, AI in FinTech funding is nearly 2x 2017's record

Annual VC-backed AI in FinTech deals and financing, 2013 – 2018 YTD (11/28/18), (\$M)



The funding growth is understandable, as AI applications are rapidly improving. AI has proliferated into virtually all aspects of financial services, from personal finance and chatbots to insurance, though with varying levels of maturity.



This year has seen a concentration of enterprise AI deals go to regulatory technology or "regtech" startups.

Regtech has been a growing investment theme in FinTech over the last five years. Not only has the number of new regulations in the last 10 years surged, but they have also increased in complexity, requiring more technical risk controls from financial services firms to implement appropriately.

If banks are successful at implementing AI, we'll start to see the industry shift into the next phase of automation, and from reactive to proactive (or even predictive) risk identification.

Credit risk is one example where AI is taking a flat rules-based model and, using big data, turning it into more customizable assessments. Argos Risk, along with Start Path portfolio company James, are two examples of startups using AI to mitigate risk.

Using AI to reduce credit default risk

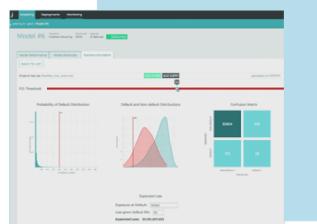


Total Funding:

\$2.82M // United States

James is a credit risk management software provider that allows users to create, validate, deploy, and monitor machine learning models.

James creates a sandbox environment for risk professionals to try different classifiers, like the traditional logistic regressions risk scorecards use, without requiring a single line of code. This gives firms the advanced risk tools needed to run multiple models in tandem to reduce credit default risk.



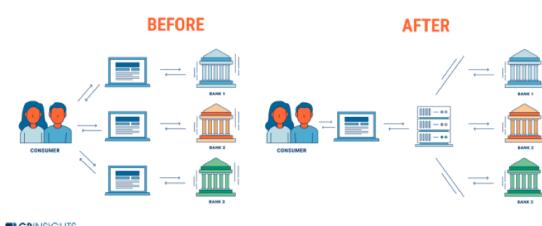
Though it is still early for many banks to embrace full automation, an expected spate of regulatory changes in the future will further incentivize adoption. As we will observe in the next section, regulation has also been a catalyst for competition, stemming largely from Europe.

TREND 2: OPEN BANKING OPENS THE MARKET UP TO GLOBAL FINTECH

2018 saw a swath of marquee regulations go live in Europe including GDPR, MiFid II, Open Banking, and the Revised Payment Services Directive (PSD2). Two of the most impactful are the UK's Open Banking and the EU's PSD2, which have overlapping goals: requiring banks to open APIs to customer data.

Consumers are the biggest beneficiaries of Open Banking and PSD2 because the regulations create choice through competition and establish consistency around security protocols to protect consumers.

Open Banking and PSD2 require banks to open APIs to customer data and open the door to FinTech



Startups like TrueLayer, Token and Tink are using a B2B2C model. TrueLayer creates an access point for developers to build applications on top of the data and is authorized by the FCA for both access to data (AISP) and access to payments (PISP).

An AISPs can aggregate disparate account information, and a PISPs can initiate remote payments for consumers. These services enable a range of FinTech solutions – such as alternative financing platforms with Clearbanc, personal finance tools like Plum, and digital banking startups like Monzo and Starling.

Globally, banks are actively looking for ways to engage with and provide better services to consumers. Leveraging the model laid out in Open Banking is one way to achieve that.

In the Asia Pacific market, the Open Banking adoption has spread rapidly thanks to a collaborative environment among banks, startups, and – especially – regulatory bodies.



In Singapore, the Monetary Authority of Singapore (MAS), in collaboration with the Association of Banks in Singapore (ABS), has been adopting APIs and building Open Banking capabilities. This includes setting up a national API registrar that catalogs available APIs, as well as launching the Network for Electronic Transfers (NETS), a nationwide payments service. NETS, similar to the PISPs in Europe, will enable faster payments with less friction.

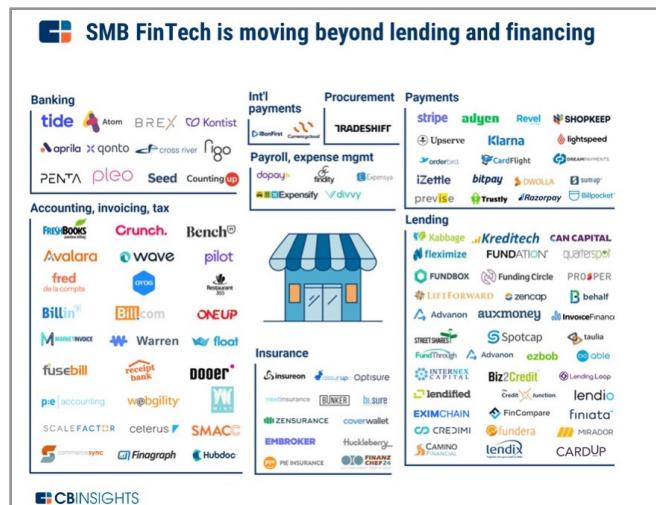
TREND 3: SMBS BECOME THE NEXT BATTLEGROUND FOR FINTECH

Now to touch on a broader trend for 2019: the increased focus of FinTech startups in building solutions for SMBs.

SMBs are increasingly a critical component for deals across the FinTech ecosystem. For one, SMBs remain underserved by established players that target bigger corporate customers, and additionally, the core of FinTech has largely been focused on helping SMBs obtain loans and financing.

In 2018, deal concentration started to shift to the operations side of the business. Pain points that startups are looking to address include obtaining bank accounts and credit cards, expense management, and payments.

Digital banking startups or challenger banks have seen funding surge globally. Consumers drove early-adoption in this category but this has quickly spread to SMBs who want the same on-demand experience, frictionless engagement, and low-cost services that digital-first banks can provide at scale. Again, Revolut is a good example of a startup that entered the market focused on B2C services for consumers, but has responded to the demand from SMBs by adding SMB bank accounts.



The second half of 2018 saw a new wave of funding rounds for payments hardware providers. These companies are moving beyond hardware and into software to be an all-in-one payment, sales enablement, inventory management and CRM hub. They're also looking to establish their brand within a strategic customer base. Toast, for example, is targeting restaurants and competes with other startups like Upserve and Touch Bistro. On the global stage, in Africa, Yoco is focused on SMB businesses and retailers. In Indonesia, there's Moka, which also works with SMBs and local artisans.

POS expands from hardware to all-in-one sales & CRM

toast	YOCO	MOKA
Headquarters: US Focus: Restaurants Q3'18 Funding: \$115M Series D Valuation: \$1.4B Select Investors: T. Rowe Price, Bessemer Venture Partners, Generation Investment Management, Tiger Global Management	Headquarters: Africa Focus: SMBs & Retail Q3'18 Funding: \$16M Series B Select Investors: FMO, Orange Digital Ventures, Partech Ventures, Quona Capital, Velocity Capital Private Equity	Headquarters: Indonesia Focus: SMBs, coffee shops, barbers Q3'18 Funding: \$24M Series B Select Investors: Convergence Ventures, East Ventures, EDBI, Fenox Venture Capital, Mandiri Capital, Sequoia Capital India, and SoftBank Ventures Korea
		

2019 will see FinTechs scale globally and remain focused on product.

In 2018, early-stage deals saw a pullback, as we had predicted. Despite the pullback, the funding environment was the strongest year to date and saw record levels of \$100M+ mega-rounds, which give FinTechs momentum to start 2019 strong.

In 2019, FinTechs will look to respond more quickly to shifting consumer demands by building products, adding adjacent services, and expanding to new markets. As needed, they will raise funding to grow distribution. While the funding environment is unpredictable, there is no shortage of some big-pocketed investors actively looking to make FinTech investments,

which means we should still see a number of larger financings take place.

FinTechs and incumbents will have opportunities to build holistic products as a result of regulations like Open Banking, enabling consumers to allow access to data, and with FinTech startups either aggregating or building applications. What's clear is that consumers and SMBs will benefit tremendously.

FINAL THOUGHTS

Looking back at the start of this revolution, consumers wanted more flexible payment methods, better banking services and access to financial advice at scale. Today, consumers not only have those benefits, but more choices than ever in other FinTech areas.

Consumer demands are shifting – and FinTechs are iterating on product quickly to get ahead of demands by offering alternative financing sources, branch-less banking and more. We believe consumer preferences will continue to shift in 2019, and beyond, and will spur even more investment in this ecosystem.