

# THE FINTECH REVOLUTION





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## Introduction

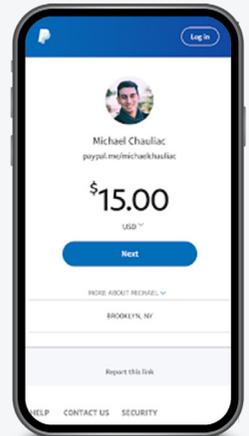
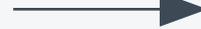
The transformation occurring in FinTech is massive.

We believe a monumental inflection in the world of FinTech has taken place over the past decade. Rapid growth in total addressable markets (TAM), investment, and company scale has put FinTech front and center. While venture funding has grown across nearly every vertical, FinTech has outpaced the broader tech sector of late. As demonstrated below, U.S. FinTech founders attracted less than \$1 billion in total venture funding in 2010. That number grew over 9x to \$8.5 billion in 2015—and then more than doubled to \$20.5 billion in 2020. While that growth is staggering, we believe the opportunity ahead is as well, as we outline in this paper.

### FINTECH HAS COME A LONG WAY IN THE LAST DECADE<sup>1</sup>



PayPal then

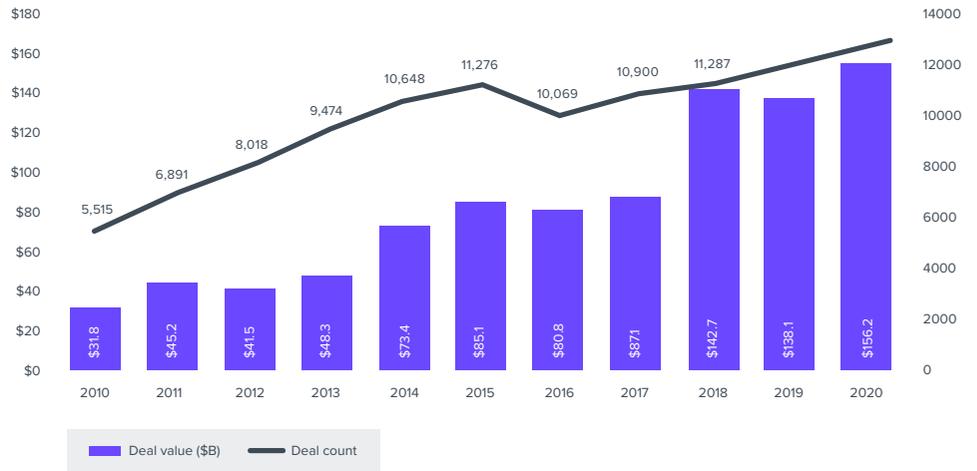


PayPal now

<b>paytm</b> Founded 2009	<b>venmo</b> Founded 2009	<b>Square</b> Founded 2009	<b>affirm</b> Founded 2012
<b>coinbase</b> Founded 2012	<b>chime</b> Founded 2013	<b>robinhood</b> Founded 2013	<b>nybank</b> Founded 2013
<b>afterpay</b> Founded 2014	<b>Revolut</b> Founded 2015		



### US VC DEAL ACTIVITY<sup>2</sup>



### US VC FINTECH DEAL ACTIVITY<sup>3</sup>



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Deal value (\$B)	\$0.6	\$1.2	\$0.8	\$0.9	\$0.9	\$1.4	\$1.8	\$2.3	\$5.4	\$8.5	\$7.6	\$1.8	\$14.4	\$16.2	\$20.5
Deal count	97	139	150	163	198	281	359	493	637	699	649	780	1029	1031	938

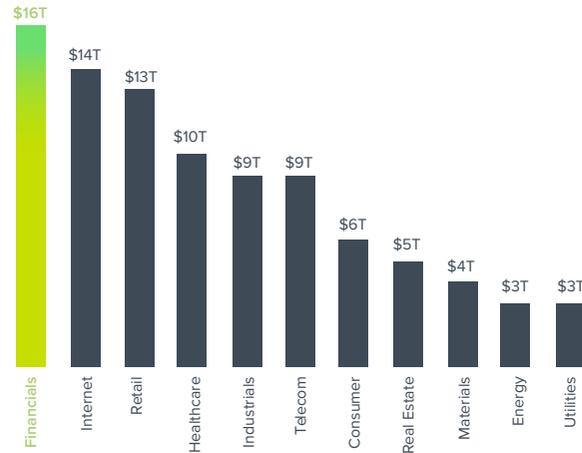


## FINANCIALS IS THE LARGEST SECTOR IN THE WORLD<sup>4</sup>

Financial services is the #1 sector

Numerous large outcomes

Global market cap of public companies



16

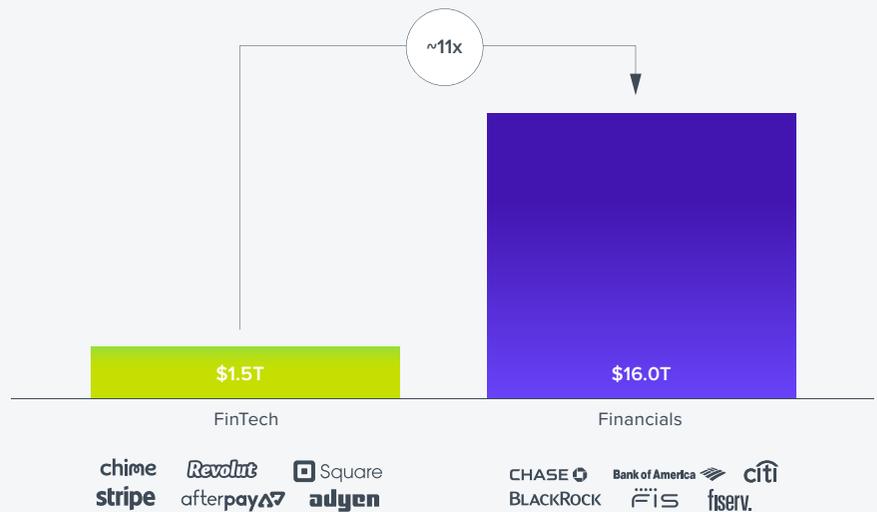
US banks \$10B+

162

Financial companies in Fortune 500

Note: Based on Coatue's classification of Sectors. Financial Services includes FinTech, e.g., V / MA / PYPL / SQ / ADYEN, etc.

## FINTECH HAS THE POTENTIAL TO 10X+ OVER 10 YEARS<sup>5</sup>



Based on the team's classification of Sectors. FinTech includes private FinTech companies plus Next-Gen public FinTech companies. Logos shown are illustrative of companies in FinTech and financials sectors

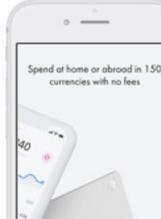
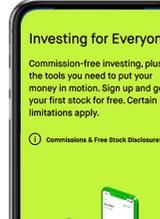
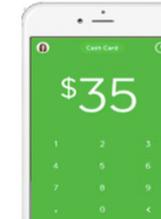
Financial services commands more market cap than any other sector in the world. There are 14 banks in the U.S. worth over \$10 billion each and 425 worldwide financial institutions valued at > \$5 billion<sup>6</sup> Additionally, 56% of that market cap is owned by companies that have been around for longer than fifty years. You can compare this to software today, where only 5% of market cap is owned by 50+-year-old businesses<sup>7</sup>.

The transformation occurring in FinTech to date has been exponential, and we firmly believe we're only in the early innings when it comes to opportunities in some of the biggest

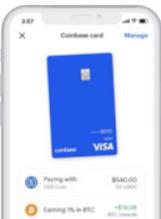
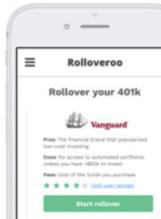
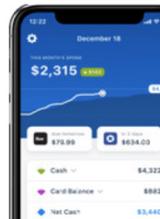
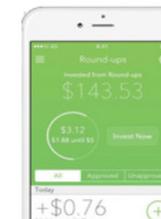
Our goal is for this to read like a *playbook* for founders and a *framework* for investors.

verticals such as insurance, merchant acquiring, issuing, asset management, real estate, and crypto, among others. Those of us who have been investing and operating in FinTech for a long time share the unanimous opinion that disruptive technology companies are speeding past the incumbents to create new models of financial services giants.

### PROVEN WEDGES<sup>8</sup>

Bank account	Credit cards	Cross-border	Trading	P2P
				
VS	VS	VS	VS	VS
Bank of America	Itaú	LLOYDS BANK	charlesSCHWAB	DELUXE
\$5/mo \$12 overdraft fee	\$5/mo One-off fees	3% fee + wide FX spread	\$5.95/trade (before Oct. 19)	\$0.19/check (Deluxe via Chase)

### YET TO BE PROVEN WEDGES<sup>9</sup>

Bitcoin cashback	Credit builder card	401K rollovers	Subscription tracking	Micro-savings
				

While FinTech Twitter is busy challenging investors and operators alike for fast follows and large rounds, we think there's good reason for the excitement in the space. With \$16 trillion in incumbent market cap to be disrupted, we currently anticipate a defined path to possibly at least 10x over the next 10 years. We think this is one of the biggest opportunities today in technology.

In this paper, we will explore what we believe are the biggest opportunities in FinTech today in addition to what we have observed are distinguished and impressive strategies employed to date by what we think are some of the market leaders. We cover both B2B (Business-to-Business) and B2C (Business-to-Customer) FinTech ranging from the hottest infrastructure categories to k-factors and product wedges in consumer and SMB (small- and medium-sized businesses). Our goal is for this to read like an introduction for non-FinTechs, a playbook for founders, and a framework for investors. We'd love to hear from you as you read the doc and debate our observations and conclusions!



## Infrastructure Is Enabling Innovation

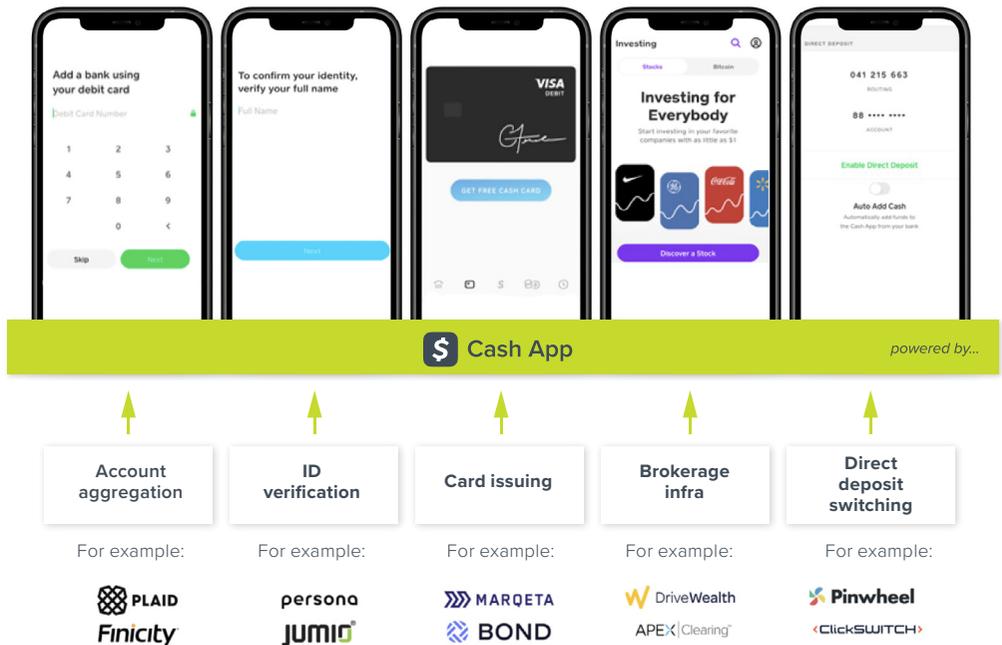
*Integrating with various Compliance/Risk/Banking services **save significant development time**, enabling many Fintechs to focus on their core user experience and service<sup>11</sup>.*

Matan Bar, CEO of Mello

We believe the development of robust FinTech infrastructure companies is at the core of innovation for the sector. Integrated infrastructure reduces years of engineering build and maintenance into a single API (Application Programming Interface). Whereas companies of the past often needed to spend millions of dollars of venture funding and years of precious startup time just getting their product to the market, that money and focus can now be turned towards financial product innovation. What excites us is that FinTechs and incumbents can now spend resources building products to address user segments that have been historically overlooked and significantly decrease the cost to deliver financial products - offering a bank account used to be expensive!

As B2C FinTech has grown and increased its product complexity, it has created the opportunity for the expansion of depth and breadth in B2B infrastructure companies. When neo-banks were launching, they needed to connect to existing bank accounts birthing account aggregation (Plaid). As these neo-banks scaled, they observed that the LTV (Lifetime Value) of a direct deposit account is much higher than a regular account, and thus payroll infrastructure was born (Pinwheel). As users expanded across geographies, the need for global KYC (Know Your Customer) was born (Persona). As audiences were built and brands realized they should issue their own cards, issuing-as-a-service came along (Marqeta). As customer-facing products continue to broaden out, demands for new platform tools expand. Thankfully, FinTech founders today have a deep suite of infrastructure to enable them to get to market faster and not waste time reinventing the wheel.

### NEXT-GEN PLATFORMS POWERED BY INFRA POINT SOLUTIONS<sup>10</sup>



Note: Companies referenced are only representative of providers in the vertical and not indicative of any commercial agreements



There is no doubt that the development of robust fintech infrastructure has made it easier to build a **strong minimum-viable product**<sup>13</sup>.

Pankaj Bengani, CEO of Meld.io

Each time this happens, the venture community initially responds with TAM concerns. We recall many investors questioning the TAM for Plaid during its early funding rounds. Perhaps that was fair in the early 2010s, when companies like Plaid, Finicity, MX, Quovo and others built products for a small number of users. But the quality of their products and the clear trend in digitization of financial services ultimately created tens of billions in market cap. How many new brands could possibly want to issue their own cards? We believe it's now a foregone conclusion that Big Brands Will Become FinTechs, and the need for infrastructure across many niche categories will be in high demand. Even small niches on the internet, especially when it comes to money, are equal to billions of dollars in TAM.

### FINTECH INFRASTRUCTURE MARKET MAP<sup>12</sup>





**BROKERAGE-AS-A-SERVICE**

DriveWealth  
 Alpaca  
 APEX Clearing™

**PAYMENT AUTOMATION**

DWOLLA meliq mineraltree®  
 appzen MODERN TREASURY ORUM  
 tipalti STAMPLI Davidxchange™  
 bill.com coupa

**ACCOUNTING INTEGRATION**

PLAID codat  
 RAILZ autobooks

**LOYALTY/REWARDS**

WeGift BLACKHAWK NETWORK TANGO CARD

**CREDIT SCORE INTEGRATION**

bloomcredit array  
 NOVA CREDIT

**DEBT MANAGEMENT API**

rightfoot  
 SPINWHEEL  
 PLAID

**BILLING ANALYTICS**

Chargebee Recurly  
 sage Intacct SaaSOPTICS  
 ZUORA chargify

**APPLICATION/DOC PROCESSING**

INSTABASE Ocroplus+  
 (h[s]) HYPERSCIENCE®  
 impira DOCUGAMI

**INSURANCE**

SURE NEXT  
 boost Trellis

**DEBT INFRASTRUCTURE**

ROSTIFY  
 blend  
 STAIRCASE

**DATA SCIENCE**

EXPLORIUM SYNCRASYS  
 RASGO KASKADA TACTON  
 H<sub>2</sub>O.ai DataRobot

Note: Companies referenced are representative of providers in the vertical and not exhaustive of every player in the space

## FIRST PRINCIPLES

As we think about the future of FinTech infrastructure, there are several key principles that guide our belief in the success of the business. For example, we expect:

1

### THERE WILL BE LOCAL WINNERS.

Successful companies will attempt to buy their way into new regions. This historically has not been successful. Understanding local nuance, customer behavior, and the unique regulatory landscape of each geography is key.

2

### API DOCUMENTS ARE THE PRODUCT.

If the documents aren't world class, developers won't adopt the product.

3

### IT IS NEVER AN OVERNIGHT SUCCESS.

Founders and investors alike need to be patient during the initial build. The painful backend process is the moat!

4

### TRUST THAT THE TAM WILL DEVELOP.

It often looks small in the beginning.

Customer relationships can be separated from banking infrastructure as the front-end experience is controlled by an entity distinct from the one that owns the balance sheet or the banking licenses.

In addition to a significant and growing TAM, we think that FinTech infrastructure can be a great business model that lends itself well to developer-led growth and unit economics that scale with end customers. For example, Marqeta and Plaid sold into Cash App when it was just an early product inside of Square and presumably their contract size grew in tandem with CashApp's scale. To round it out, you also tend to see very healthy gross margins as these firms benefit from the scale of integrations and volume breaks. Some fear that consumer FinTech players like CashApp will eventually build this infra layer in-house. While that is always a possibility, engineering resources are not unconstrained and solving customer-facing issues that are core to their business is likely to take priority.

We have seen that infrastructure businesses have been successful across broad horizontal markets organized by end customer and product function. Looking forward, we expect they will see competition (and this applies to many of the categories in FinTech) in connection with the pursuit of depth within each category as new entrants focus on more narrow verticals. Examples to note in payments occurred when broad-based POS was faced with competition in developers (Stripe), vertical markets (Toast and Shopify), and marketplaces (Uber).

Much like the neo-banks that they are serving, we anticipate that these infrastructure businesses will be rebundled themselves. Just as many consumers want a one-stop-shop for their bank account, brokerage, and credit cards, we have seen that FinTechs would also strongly prefer to work with one partner that is capable of handling many products. We have started to see attempts of this from some of the largest players in the space, but frankly to date they've had limited success. It is very hard to do FinTech infrastructure part time. These are massively complex problems that are mission critical and require armies of product and engineering teams. As such, we predict that we are years away from rebundling, and that much of it will happen inorganically—this stuff is hard to build and maintain!



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## Regulation at the Forefront

We believe one of the best advantages and toughest challenges in FinTech is managing the regulatory environment. It's a challenging blocker for startups—products can take years to develop, licenses can take even longer to acquire, and balancing innovation with regulatory risk can be akin to walking a tightrope. Working with regulators and managing compliance is a core function of the business. There is an old adage in Silicon Valley: “Move fast and break things.” We caution FinTechs at every stage to NOT work this way. In fact, FinTech's version of “move fast and break things” should be “move methodically and respect regulation.”

For the last decade, FinTech existed in relative obscurity amongst giant financial institutions that represented \$16 trillion in market cap<sup>15</sup>. That has changed dramatically in the last 1-2 years as more regulatory attention has been paid to the industry as it achieved scale. Failures have occurred where overall infrastructure (both tech and people) limitations had not been tested. When this happens at scale, as we have seen recently, it increases the level of scrutiny to be incurred by one of the many regulatory bodies that oversee the vertical. Moreover, it becomes a clarion call for more attention likely to be focused on consumer protections, disclosures, capital requirements, and licensing.



### AS FINTECHS RISE TO COMPETE WITH INCUMBENTS ON THEIR TURF, THEY WILL HAVE TO PLAY BY THE SAME RULES<sup>16</sup>

**World's Biggest Banks Fined \$321 Billion Since Financial Crisis**  
By Geoff Fitch  
March 12, 2019, 9:01 PM PST

**AML, KYC and Sanctions Fines for Global Financial Institutions Reach \$5.6 Billion Mid-Year**

**Report: Fines against financial institutions hit \$10.4B in 2020**  
By Sydney Sanger | Tue, Dec 22, 2020 1:14 PM

**A near record year for money laundering: Banks hit with \$10 billion in fines**  
By Jeff Korman

BRISBANE | Jun 8, 2021, 04:49pm EDT | 5:28 AM  
**Deutsche Bank Fined \$120 Million Over Bribe Payments To Foreign Officials**

BUSINESS  
**Wells Fargo Paying \$3 Billion To Settle U.S. Case Over Fraudulent Customer Accounts**  
February 21, 2020 - 4:17 PM ET

BRISBANE  
**Goldman Sachs fined record \$2.9 billion to resolve IMDB bribery scheme**

BUSINESS NEWS | June 11, 2021 | 2:55 AM | UPDATED 9:40PM AEST  
**UK fines Commerzbank \$47 million for lax money laundering controls**

A not-too-distant future

**[Insert Fintech Name Here] fined \$15.9M for lag in reporting suspicious transactions**



*Gone are the days of playing fast and loose with Fintech regulations.*

We see part of the challenge being that over the last decade, FinTechs have emerged from relative obscurity to become household names for many consumers within the confines of highly arcane rules built over decades by various regulatory bodies. There's undoubtedly a fundamental conflict when you're trying to innovate, but also work within the confines of regulations that were built to force large incumbent financial institutions to operate in a specific way. Over the years, we have been approached by countless startups that tell us they can improve underwriting in consumer lending, but have never heard of Fair Lending laws nor know how to manage a balance sheet. Yet others have claimed that they are going to do away with overdrafts and late fees, but instead encourage tips which drive APRs that would make payday lenders blush.

In such situations, the product and risk orientations of these large FinTech companies are coming to light and we expect to see a change in reactions in consumer behavior and regulator interest. The decisions at the earliest stage of company building tend to be amplified in these situations. How long did the FinTech wait to add an experienced General Counsel and/or Chief Compliance Officer? Have they ever meaningfully engaged with individuals that have regulatory experience as an advisor or independent board member? It is never too early to be thinking about these questions in financial technology.

We strongly believe that FinTech winners will be built by teams that can balance creativity and speed with innovation. The earliest decision needs to be how you're going to work with the financial regulatory ecosystem and not against it. With creative problem-solvers on the team, a FinTech business can often innovate and evolve through ambiguous "analog-oriented" regulation. Compliance can and should be used as a selling point to demonstrate customer quality function (and a value add) to avoid fraudsters, protect customers, minimize public insults, and maximize consumer response to complaints. Gone are the days of playing fast and loose with FinTech regs. The scale is here and everyone is officially on notice. Company building in FinTech is forever changed and we expect you will see the most strategic and strongest companies leaning into creatively solving regulatory challenges from here on out and pitching it as a strong competitive edge.

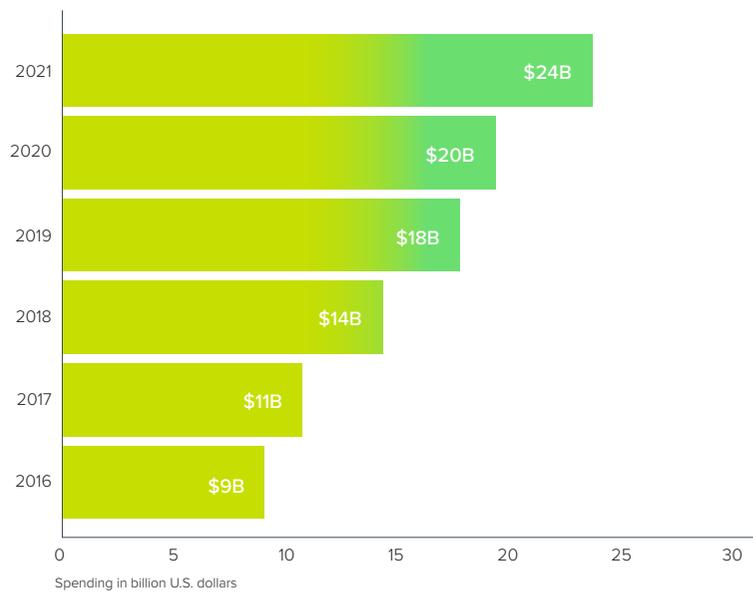




## Start With Customer Acquisition

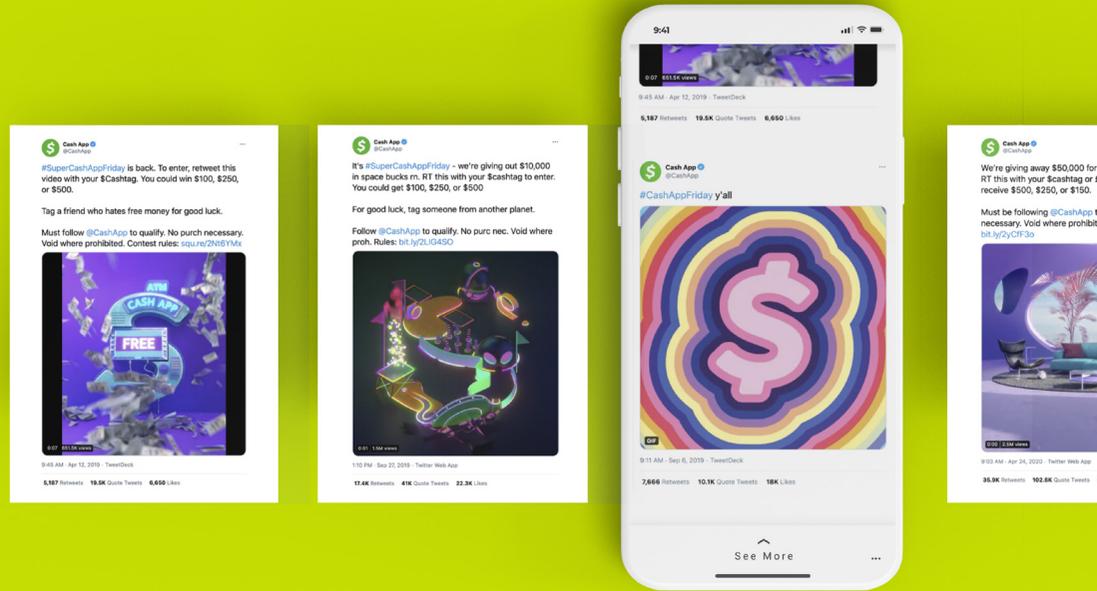
Once a company's infrastructure and regulatory frameworks are in place, we suggest that the next place which to turn your attention in FinTech is acquisition. As we have all seen, the acquisition battleground in the sector is fierce. As demonstrated below, digital advertising spend for financial services since 2016 has nearly tripled to \$24 billion. For this reason, we believe that innovative acquisition and retention tactics are nearly as important as the product itself in the early days. The playbook thus far in FinTech is an innovative wedge followed by exceptional engagement earning your way to the ability to cross-sell.

### FINANCIAL INDUSTRY DIGITAL AD SPEND IN THE U.S. 2016-2021 (\$B)<sup>17</sup>



We wanted to tell our story and build through aspirational content. Step strategically formed partnerships with some of the **largest influencers in the world...**<sup>19</sup>

CJ MacDonald, CEO of Step



20

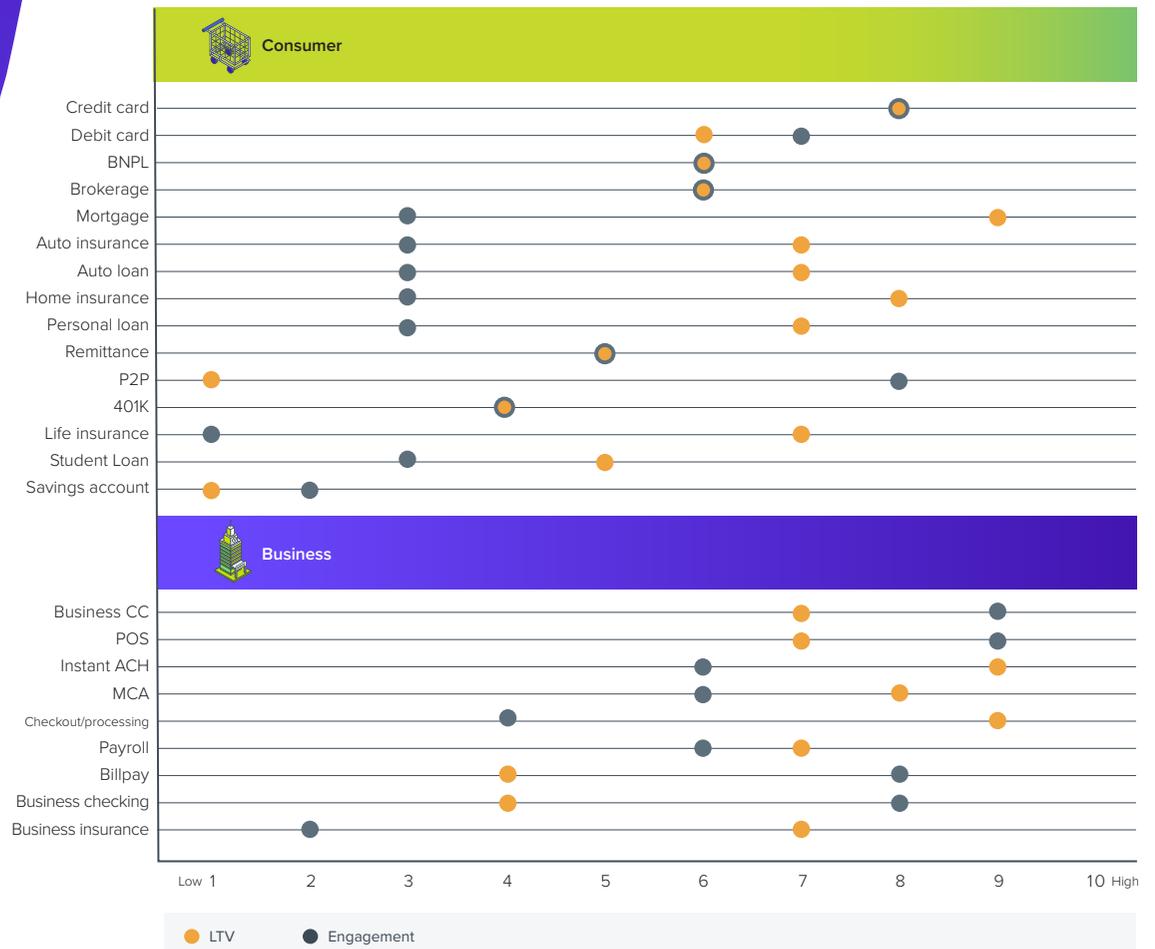
Step One is getting the attention of your audience with an eye-catching approach that is true to the brand. Square Cash's #CashAppFriday demonstrated the power and traction of this type of approach in consumer FinTech. By harnessing the power of social media, the Square Cash App team got many of their target customers tweeting about the product every Friday in a campaign built to send their users money. Similarly, the most recent version of this has led to what we believe is one of the most impressive launches of a consumer FinTech brand in Step, which has built a platform teaching financial literacy to the next generation. True to its brand, Step has benefited spectacularly from TikTok (a channel consistent with the brand and audience!) as well as from campaigns such as \$StepSaturdays and #TeamBlue / #TeamPink / #TeamYellow, depending on the color of the card you choose.

Another playbook that we see executing well is taking a historically small dollar-cost product and making it free (e.g., bank accounts and credit monitoring). Legacy financial institutions have been very good at marking up basic financial products for a long time and they now depend on the steady cash flow from these services. Meanwhile, Chime offered its users a no-fee bank account, Revolut gave away cross-border payments, and Melio handed out Automated Clearing House (ACH) payments and checks. The act of giving away something that customers inherently feel like should be free buys businesses an incredible amount of goodwill and immediately signals to consumers that its interests are aligned with the company. When something is free, the top of the funnel inherently comes easier and you position yourself well with consumers to expose, attract them to, and ultimately sell innovative financial products. Companies can use the free product as an acquisition wedge and monetize elsewhere in the value chain.

Once this top of funnel strategy is executed, we suggest turning to engagement. Without engagement (read: retention), the top of funnel efforts are wasted. Retention takes shape in a single financial product and/or by making money social. The reason everyone is launching a debit and credit card right now is because they are such high-engagement (and LTV!) products. Similarly, peer to peer (P2P) payments are high engagement and social, but unfortunately historically have not monetized well. To date, we've seen that chances are that if you've nailed top of funnel and one of these highly engaging products, you're probably off to a great start.

If you start with a product that has lower single-player engagement, making it a social experience has the ability to create network effects within the product. For example, a handful of recent companies have shown that stock trading can be inherently social and companies like CommonStock, Public, and Robinhood have all benefited greatly from this trend. The combination of social platforms and financial products has created an active and engaged audience for these products. Each of the brands has its own social meaning and a distinct personality, and that has given rise to a die-hard consumer base that has previously only formed a connection reserved for the most iconic brands. Additionally, product features such as sharing, gifting, and the send/receive functions further amplify the network effects of the products.

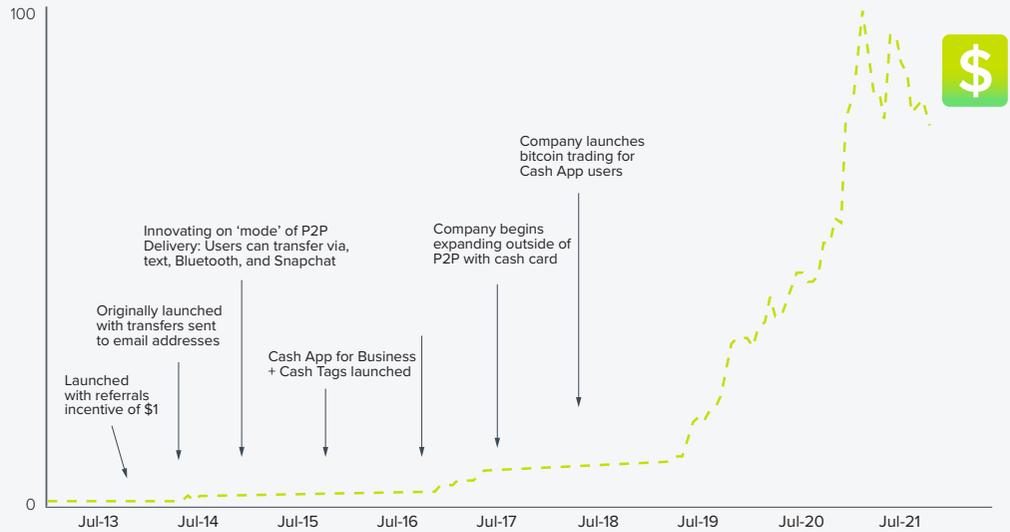
#### ENGAGEMENT VS LTV FOR KEY PRODUCT LINES<sup>21</sup>



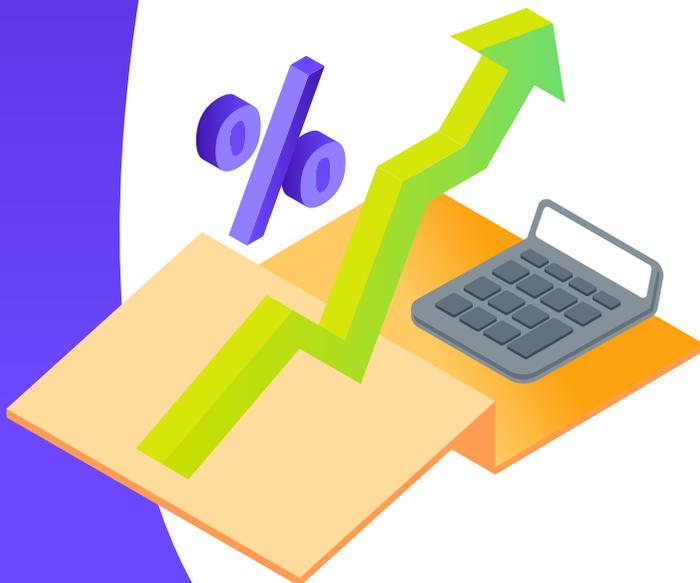
Over time, successful FinTechs have found a way to continuously improve engagement.

### GOOGLE TRENDS FOR CASHAPP: INTEREST OVER TIME<sup>22</sup>

Product launches over time increased customer interest and engagement



Note that low LTV or free products don't necessarily doom the business to permanent losses. You just have to be deliberate about deciding where in the value chain and at what point in the customer experience you are going to try to earn your margin. For example, onboarding with a free digital bank account option could mean that fees are earned with instant deposits or interchange. Additionally, gross margin could be earned on the cost side through negotiations with key vendors that provide the program rails. Over time, many of the successful FinTechs have found a way to continuously improve engagement by adding product features. This is generally driven by a need to make money once the first two pillars of the business have been established. We will examine this rebundling effort next.

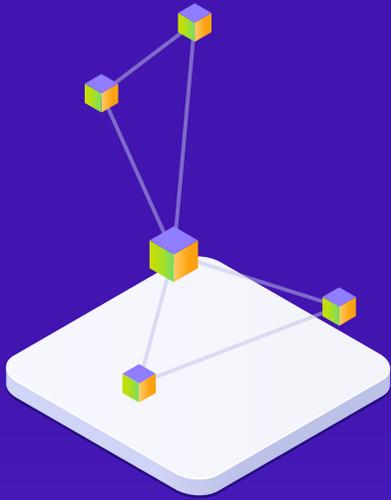


LEADING FINTECHS INVEST NEW REVENUE STREAMS OVER TIME: D2C<sup>23</sup>

				
<b>First product</b>	P2P transfers ↓	No fee bank account with debit card ↓	Bank account & foreign exchange ↓	Roboadvisor ↓
<b>Subsequent products</b>	Stock trading	P2P transfers	P2P transfers	Stock trading
	Bank account	Credit card	Crypto	Bank account
	Debit card	Paycheck advance	Savings & budgeting	
	Small personal loans	Savings	Insurance	
			Stock trading	

LEADING FINTECHS INVEST NEW REVENUE STREAMS OVER TIME: B2B<sup>24</sup>

				
<b>First product</b>	Ecommerce software ↓	Restaurant POS solution ↓	Ecommerce payment processing ↓	Payment processing ↓
<b>Subsequent products</b>	Checkout	Online ordering	Corporate card	POS solution
	Bank account	Payroll mgmt	Credit solutions	Invoicing
	Debit card	Inventory mgmt	Card issuing	Banking services
	Credit solutions	Credit solutions	Banking-as-a-service	Credit solutions



## REBUNDLING FINANCIAL PRODUCTS

What does it look like after you've launched your first successful financial product? The number of monoline FinTechs out there is endless, and we think the most agile and strategic teams understand this risk. As a result, the playbook has rapidly evolved to leverage your existing customer base to cross-sell additional products. The outcome, ironically, is that the winners are starting to look like... traditional banks.

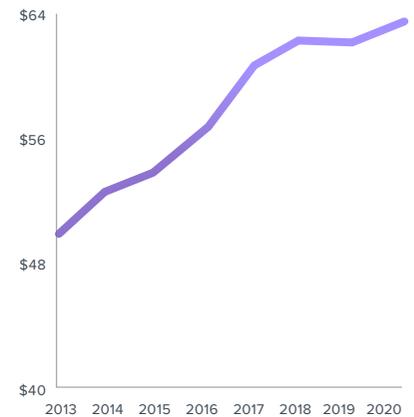
The math behind it is simple. As FinTechs start to make a dent in the \$24 billion annual FinTech ad spend, they often discover that they need additional lines of gross margin to cover the customer acquisition cost (CAC). The playbook becomes obvious because it's necessary. However, getting there ultimately comes back to the question of engagement. We have seen over the last decade a large number of FinTechs, many of which even went public, that failed to successfully execute on their second act. The most important point of commonality that we see amongst these businesses that were ultimately unable to deliver ARPU growth is a lack of engagement on the first product.

## NEW PRODUCT INNOVATIONS BOLSTER ARPU FOR PLAYERS<sup>25</sup>

 **Cash App** Annualized ARPU per Customer



 **PayPal** Annualized ARPU per Customer



Historically, FinTechs that have shown strong growth and continued development invariably find a way to manage their customer acquisition costs while scaling their LTV over time. There is magic to accomplishing harmony here. The charts above illustrate two FinTechs that have managed successfully to grow their ARPU steadily over time. In the case of Bill.com, revenue per customer has gradually increased with the addition of more seats over time per customer, more services offered, and increased usage of the platform. After starting with a base SaaS fee and capturing SMBs and accountants, they offered strategic products such as virtual cards, international payments, real-time payments, and more. In the case of Revolut, the company went from providing basic banking services for consumers to providing early wage access, crypto, and even crossed over to offering SMB financial services with business bank accounts, money transfers, and expenses.

The outcome is that the winners are starting to look like... banks.

When differentiated rebundling happens and attach rates are high, it generally will be reflected in the daily active users/monthly active users (DAU/MAU) ratio. The new products tend to increase engagement and further enable companies to cross-sell additional products, ultimately increasing gross margin per customer. It is in these rare cases that we believe a generational FinTech business can be born. It is this confluence of factors that drives scale and we believe the ability to dominate across a wide breadth of financial products.

As infrastructure services scale, we believe this rebundling will happen with increasing frequency and speed.

Now it's time to think about product. In this section we will walk through what we consider to be some of the most innovative and interesting trends in FinTech today.

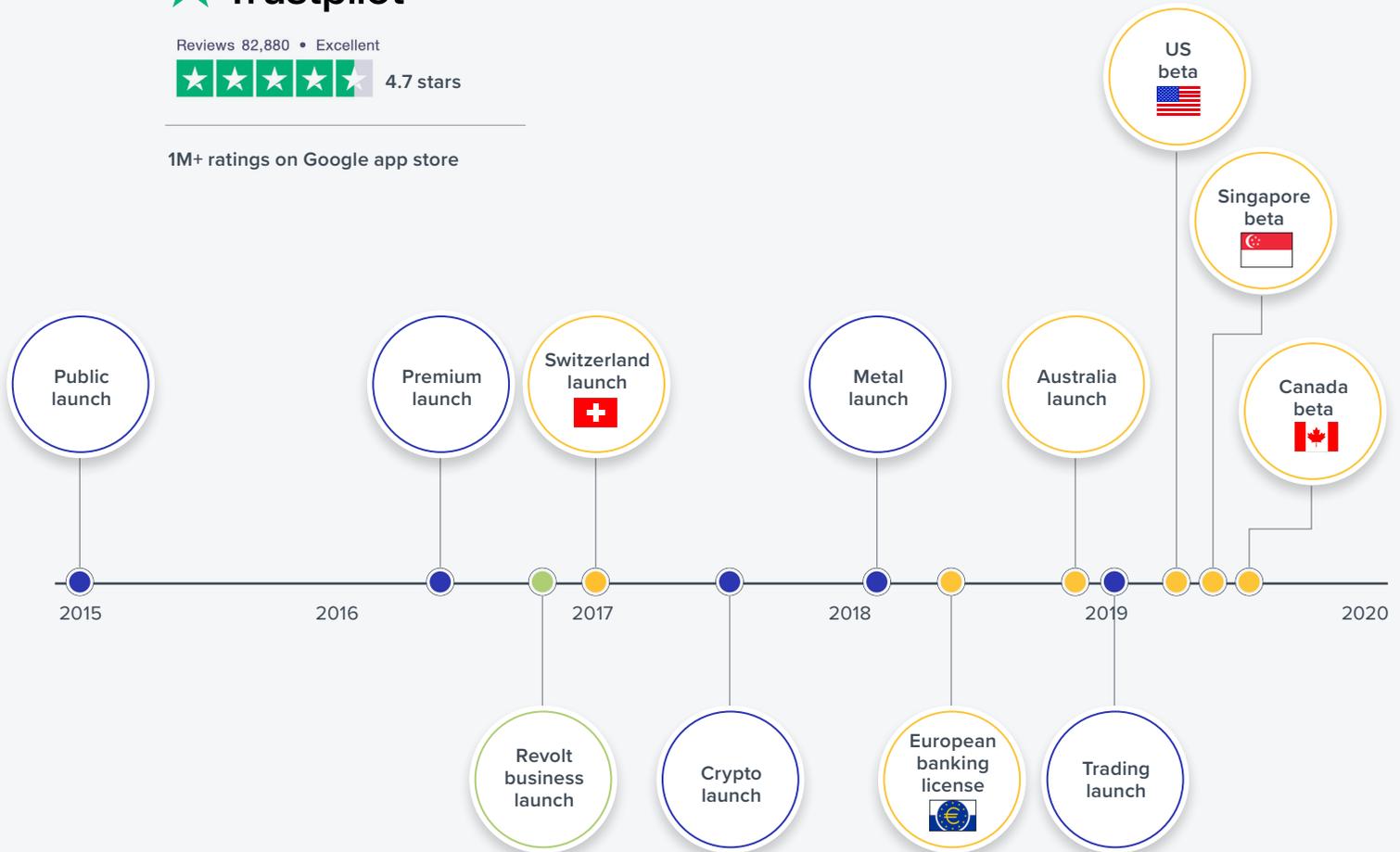
#### KEY REVOLUT MILESTONES<sup>26</sup>



Reviews 82,880 • Excellent



1M+ ratings on Google app store





## Alternative Data Provides a Fresh View Into Financial Health

Throughout every phase of a customer journey, financial products use varied sources of data as a means to evaluate consumer health. That data as an input has been sourced from credit, banking, payments, payroll, and behavioral data sets. We expect these new data opportunities to open the aperture of analysis and computation to evaluate customers well beyond traditional means. Additionally, they provide real-time analysis of financial health that otherwise has often been missing in traditional credit reporting.

### CREDIT AND FRAUD SIGNAL INPUTS<sup>27</sup>

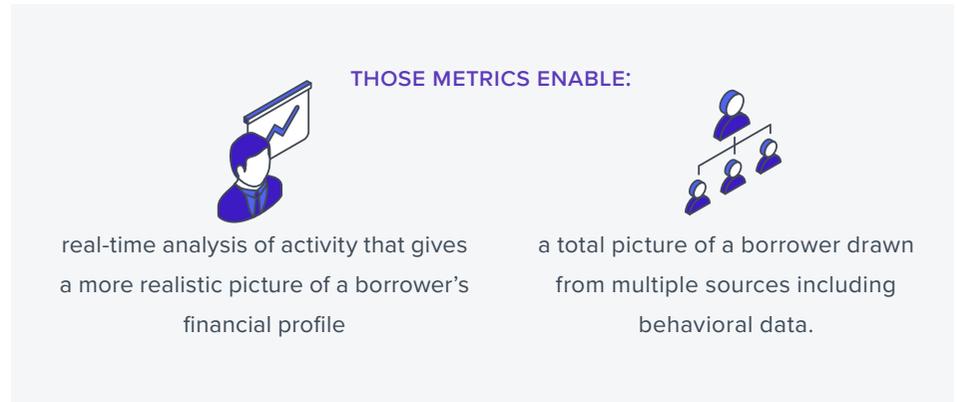
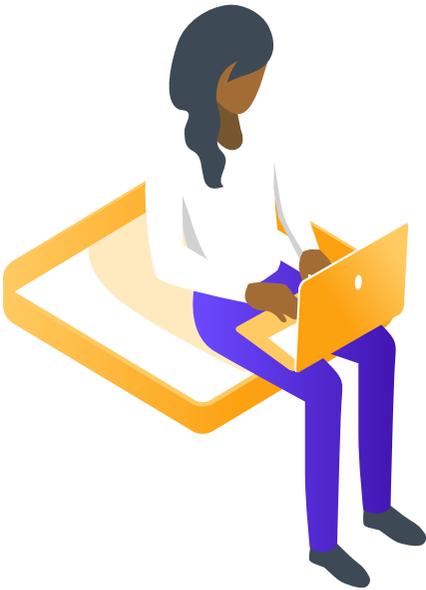
Credit	Banking	Payments	Financial
Payments history	Balance	Number of transactions per day	Total loan balances
Amounts owed	Direct deposit link	Credit card diversity and type	Total income
Length of credit history	Number of negative days	Number of chargebacks	Behavioral
Credit mix	Inflows and outflows		Phone type
New credit			Email address

We think that currently one of the most powerful applications for alternative data is credit underwriting. Today, 40% of consumers have an average FICO score below 700<sup>28</sup>. In fact, at least 26 million Americans are “credit invisible” (i.e., they don’t have a credit record at all) while another 19 million Americans have a credit record, but no score because their history is too thin or out-of-date<sup>29</sup>.

Businesses have no FICO score equivalent. Many traditional lenders generally don’t lend below the threshold of 620 because the probability of default is perceived to be too high. This narrows who is included in the credit system and creates a dynamic where those that need it most are purposefully excluded.



New data sources enable an entirely new risk system based on metrics that have different characteristics than a typical FICO-based analysis, which fails to factor in key indicators such as bank account balance, income, and salary<sup>30</sup>.



Fully integrated data systems enable credit to be reviewed from multiple customer accounts (inflows) and allow financial products to be right-sized for the transaction, which is one of the most important components to funding appropriately without over-levering.

### ALTERNATIVE CREDIT DATA IS INCREASING IN USE GLOBALLY<sup>31</sup>

Local regulations in each geo dictate which data is legally permissible for use in credit decisioning

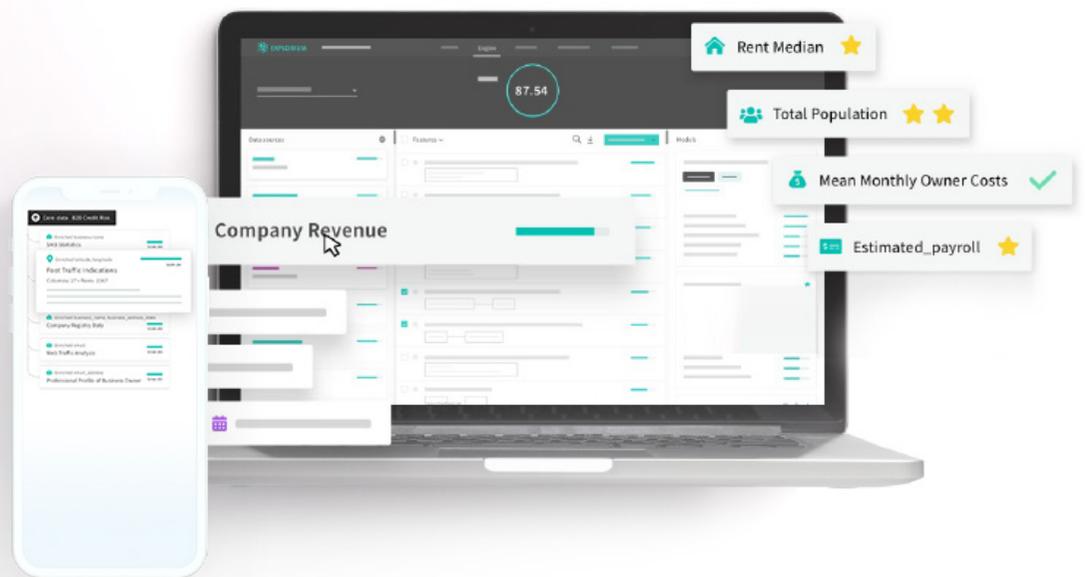


How it's  
aggregated,  
computed  
and analyzed  
will drive  
advantage.

One of the most illustrative examples of the application of alternative data is Square Capital now Square Financial Services (SFS), the SMB lending operations of FinTech player Square. SFS lends to businesses that were previously considered too risky or small, offering loans as little as \$500. As a result, the impact of micro-credit changes the growth trajectories for businesses that had previously been locked out of the financial system. This opens up the possibility of an entirely new lending market that has yet to be addressed by traditional banks. The data used by Square to evaluate prospective borrowers looks nothing like the bank-style application process that requires historical tax returns, incorporation documents, and real estate leases. Instead, it measures business velocity through total sales via its embedded processor, number of payments per day, payment consistency, credit card primary account number (PAN) profiles, etc.

How can alternative data become widely adopted? We believe that continued open access to APIs and the broader trend towards open banking can enable the creation of an aggregated data platform that draws signals from broad sets of databases. The proprietary insights can then be drawn from a combination of public and private data. We expect that how it's aggregated, computed, and analyzed will then drive the advantage, as opposed to just access to the raw signals themselves.

#### ALTERNATIVE DATA INPUTS<sup>32</sup>



# USING INTERNAL DATA FOR FINANCIAL ANALYSIS WON'T CUT IT ANYMORE<sup>33</sup>

## INTERNAL DATA

- Sales data
- Product reviews
- Support tickets
- Financial reports
- Google analytics
- User logins
- Clickstream
- Salesforce
- Product catalog
- Visitors log
- Marketing spend
- Store sales
- CRM
- Campaign performance
- Post promotions

## EXTERNAL DATA

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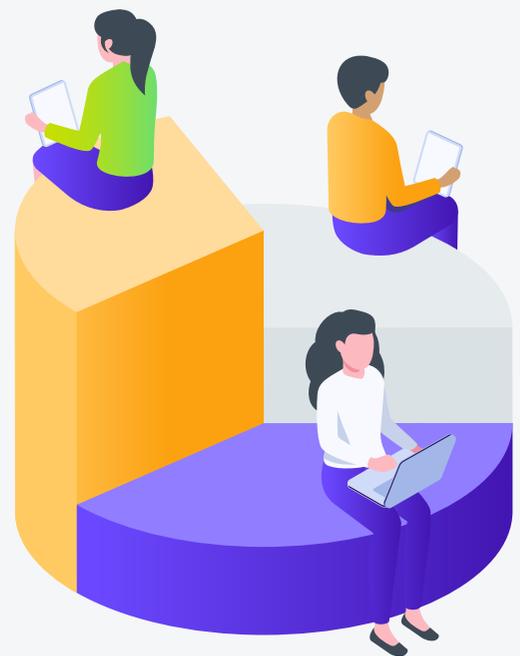
*Critical data aggregation will likely move us along from siloed platforms to an integrated system.*

Today, we see many apps connecting into foundational financial systems that drive important components of the value chain such as insight and connectivity into both the consumer's paycheck and bank account. We think these systems contain important logic to analyze identity as well as consumer ability and willingness to repay. Payroll providers like ADP or Equifax are likely the first companies to know that a consumer lost their job. That data isn't transported systematically to financial files, which means other signals become dependent on seeing the direct deposit from your paycheck. We expect improved data infrastructure to broaden and deepen the links to data sources, so much so that this type of insight becomes ordinary. As a result, if it occurs, then customers could reap the benefit of companies' ability to track and respond to key milestones in their life and corresponding financial journey.

Finally, it's our opinion that in today's post-stimulus environment, the distribution of Cares Act funds, American Rescue Plan Act, and basic government entitlements such as unemployment would be greatly advantaged if data APIs were deployed. Entitlement programs could identify the loss of a paycheck, verify accounts, and disburse right-sized funds all based on data sourced through real-time APIs. Moreover, we believe that speed and efficiency of distribution could be dramatically improved from the long lines and system crashes of 2020, while synthetic monitoring systems could be leveraged to review account information and minimize fraud.

Critical data aggregation will likely move us along from siloed platforms to an integrated system that combines signals from many data types. The possible applications are endless—from sales forecasting and lead generation to promotional optimization. To create an advantage, companies will need to consider shifting their analysis to cloud-based systems to enable the combination of customer transactional data with external signals.

#### CONSUMER FINANCIAL JOURNEY: DATA AT EACH STEP<sup>34</sup>





## Embedded Finance Makes Transactions Effortless

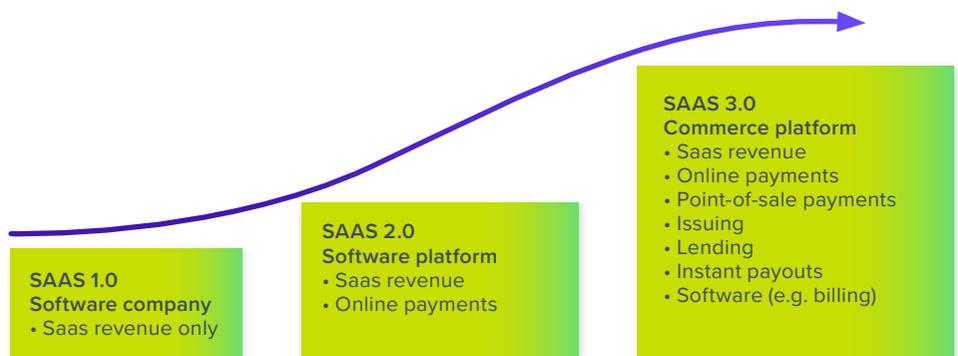
Financial services are increasingly offered within digital experiences where customers are already spending their time. The last decade indicated that banks are no longer the durable institutions that center communities. The number of U.S. commercial banks has fallen from 18,000 to below 5,800 over the last three decades<sup>35</sup>. Banking has moved toward app-based systems and is now happening in the context of where we're already spending our lives online.

Embedded banking means integrating financial services of all types into third-party platforms through APIs. Importantly, customers don't want the financial service, they want what the financial service enables. Tools like photo capture for check cashing and P2P payments have paved the way to conduct paperless transactions at your fingertips in lieu of the antiquated act of "going to the bank."

We have graduated to a new level where many consumer apps are adding banking services and the lines between banking and customer services are further being blurred. You can pay for your Uber and simply leave when the ride ends. There is no cash or credit card activity that needs to happen—it's automatic. When you're managing your supply chain in Coupa, instead of leaving the app to pay your vendor, you can spin up a payment right there in flow.

In our view, the most popular application of embedded finance today sits within SaaS. We believe that companies like Square, Coupa, ServiceTitan, Shopify, and Wix have transformed their product lines and significantly grown their TAM by offering financial products within their software. By leveraging infrastructure from Stripe, Payrix, or Infincept, or by going direct to WorldPay to become a payment facilitator, these businesses have grown the LTV of their customers substantially. Suddenly, a business goes from offering software only to offering software, payments, issuing, and lending.

### FOR SOFTWARE COMPANIES, THE EVOLUTION FROM SAAS 1.0 (SOFTWARE ONLY) TO SAAS 3.0 (FULLY EMBEDDED FINANCE) CAN EXPAND CLTV<sup>36</sup>



Embedding financial services improves customer experience and expands CLTV 2-5x



Going down this path unlocks a massive opportunity.

The clear reason for going down this path is that it has the possibility to unlock an untapped opportunity. For example, as shown below, Infincept estimates that there are ~20k software businesses in the U.S. that touch payments and over 200k worldwide. Moving beyond the core software solution will allow these providers to unlock additional lines of revenue.

#### PAYMENT ADJACENT SOFTWARE OPPORTUNITY<sup>37</sup>

Infincept estimates there are ~20k US software platforms that touch the payments function, and ~209k worldwide (segmented as outlined below), resulting in what it considers to be a ~\$15b recurring revenue opportunity on a global basis.

Tier	ISV population (thousands)	ISV mix %	SaaS TAM (\$mm)	Additional products +50% of annual opportunity/ISV (\$mm)	Recurring TAM (\$mm)
Large & enterprise (revenue \$50mm - >\$250mm)	21	10%	\$3,597	\$1,799	\$5,396
Medium (revenue \$10mm - >\$50mm)	42	20%	\$3,754	\$1,877	\$5,631
Small & micro (revenue <\$1mm - \$10mm)	146	70%	\$2,399	\$1,200	\$3,599
<b>Total</b>	<b>209</b>	<b>100%</b>	<b>\$9,750</b>	<b>\$4,875</b>	<b>\$14,625</b>

#### STRIPE ENTERPRISE AND SAAS PLATFORM CUSTOMERS (EXAMPLES BY SUB-SEGMENT)<sup>38</sup>

eCommerce & Retail			WARBY PARKER			
						SHOPSTYLE
B2B platforms					AUTOMATTIC	
Software as a service						
B2C marketplaces						
Non-profits & Fundraising						

In addition to payments, companies are routinely embedding products such as credit and debit cards, lending, and now brokerage. We expect that embedded finance will have a transformational effect on the traditional banking system starting with less frequent visits to the bank, fewer transactions through incumbent debit or credit cards,

Embedded finance will have a transforming effect on the traditional banking system.

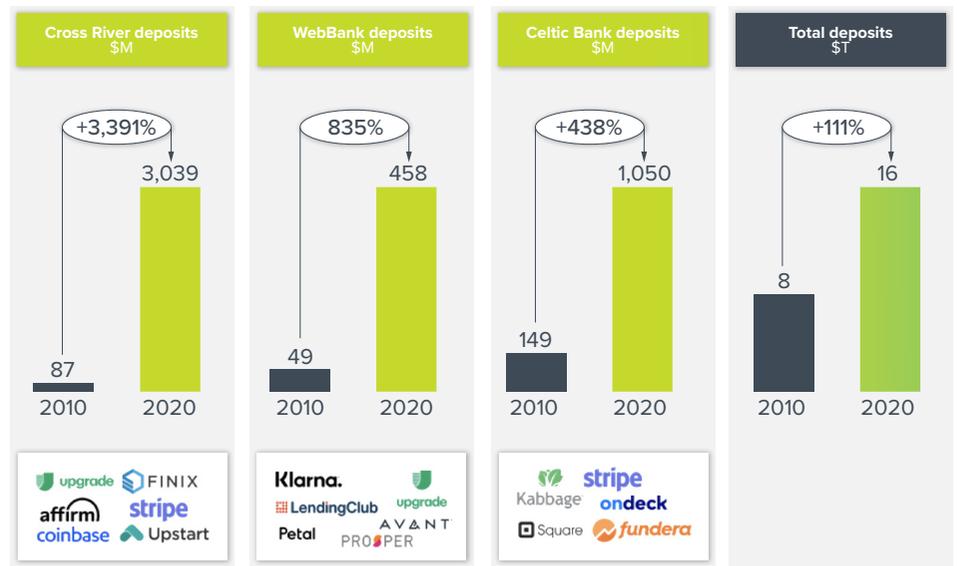
and potentially in the long term fewer deposits held at the banking leaders of today. We are seeing these effects cascade first into customer-facing experiences and transactions. Deposits have only just started to move from incumbent banks to those banks who service FinTechs, but the long-term trends highlight and suggest a road toward a full transformation into banks owned by FinTechs or banks looking like infrastructure utilities on the back-end.

COUPA HAS SEAMLESSLY EMBEDDED PAYMENTS ON TO ITS PLATFORM<sup>39</sup>



The outcome of businesses embedding financial products to date has been very positive. We've seen valuation multiple expansion across the board, and in most cases a step function improvement in experience for their end customers. One potential consequence that we are spending time studying is the long-term margin profile of the underlying financial products. As financial products become more ubiquitous for consumers and enterprises, we fully expect the new issuers to compete on price. By way of example, for a software business that is already enjoying 75% gross margin, there may come a time when it's perfectly happy offering payments or debit cards at cost. Will these products simply be viewed as table stakes and features that are required to compete? If so, these newer FinTechs will need to continue innovating on brand new financial product experiences or else watch their margins be competed out.

**FINTECH PARTNER BANKS HAVE GROWN DEPOSITS FASTER THAN AVERAGE<sup>40</sup>**



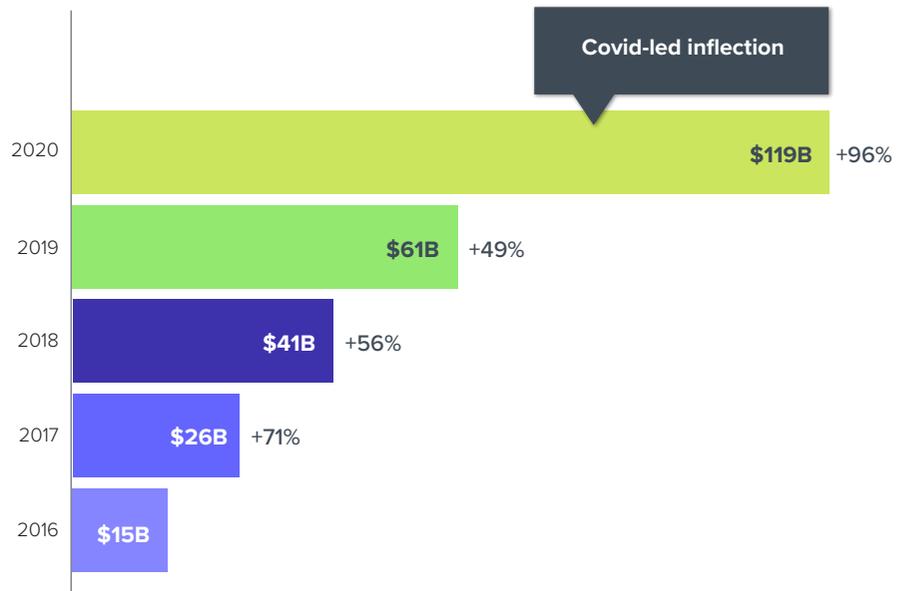
Note: Deposits, All Commercial Banks from Board of Governors of the Federal Reserve System (US) as of 3/12/2021





## Digital Payment Acceleration

SHOPIFY GMV (\$B)<sup>41</sup>



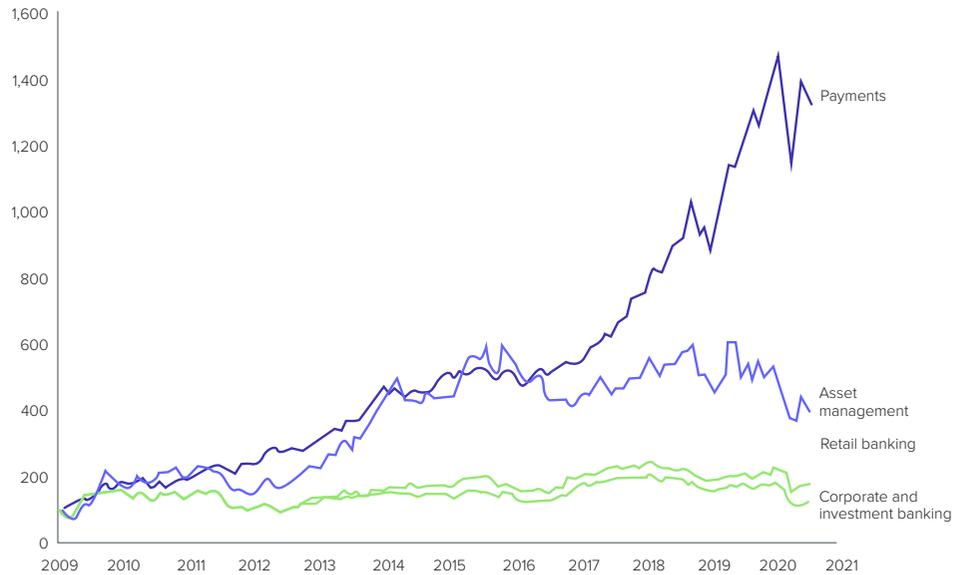
If we were forced to pick a single trend within FinTech that was accelerated by COVID-19, it would be the digitization of payments. The industry was pulled forward by 5+ years in both B2C and B2B. For consumers, paying with cash became immediately unsanitary and, in many cases, impossible. For businesses, gone were the days with fully staffed back offices opening invoices and licking envelopes filled with checks. Even prior to the pandemic, payments businesses tended to outpace other areas of financial services when it came to value creation. It is a category that continues to receive growing interest from VCs in part because its TAM is measured in trillions.



Even prior to the pandemic, payments businesses tended to outpace other areas of financial services.

## PAYMENTS COMPANIES CONTINUE TO OUTPERFORM OTHER BANKING SECTORS IN VALUE CREATION<sup>42</sup>

TRS performance of public companies<sup>1</sup>  
Indexed to 100=January 2009



CAGR 2009-2021  
%



Note: Based on an analysis of public companies; custom indices (market-cap weighted) based on identified public European peers: payments N=27, retail banking N=20, asset management N=17, corporate banking N=5; 2019 data as of October; TRS CAGR for Jan 2009-July 2020

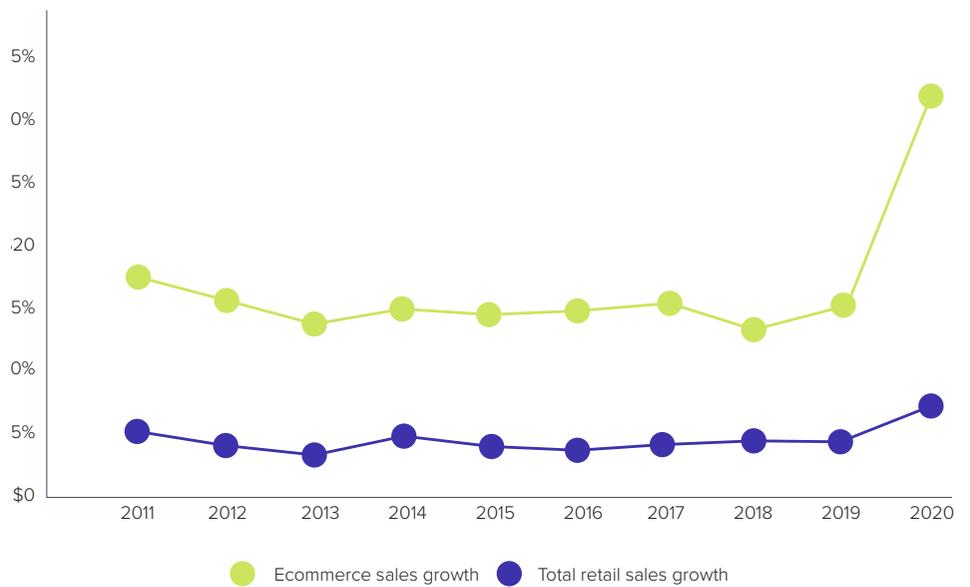
## PAYMENTS MARKET SIZE<sup>43</sup>

In \$B	USA	Global
E-commerce	\$1,000	\$4,000
Card-Present Retail	\$3,000	\$17,000
Cash	\$1,000	\$9,000
C2B	\$5,000	\$30,000
C2C	\$1,000	\$2,000
<b>Total Consumer Payments</b>	<b>\$5,000</b>	<b>\$32,000</b>
Digital	\$9,000	\$62,000
Offline	\$16,000	\$58,000
<b>Total Business Payments</b>	<b>\$25,000</b>	<b>\$120,000</b>

If we were forced to pick a single trend within FinTech that was accelerated by COVID-19, it would be the digitization of payments.

### COMPARING GROWTH: U.S. ECOMMERCE VS TOTAL RETAIL SALES<sup>44</sup>

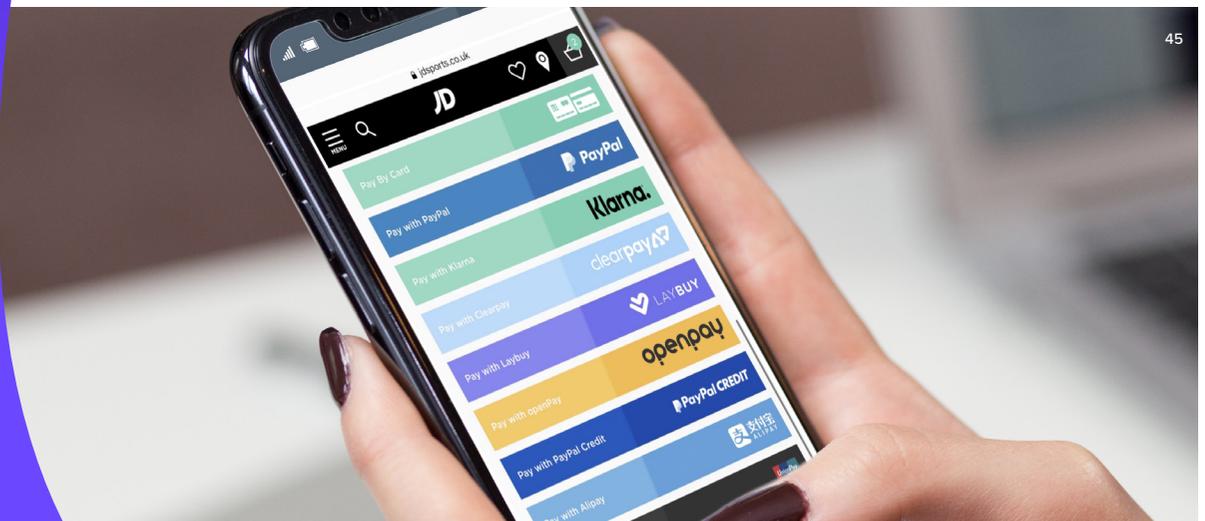
Year-over-year growth, 2011-2020



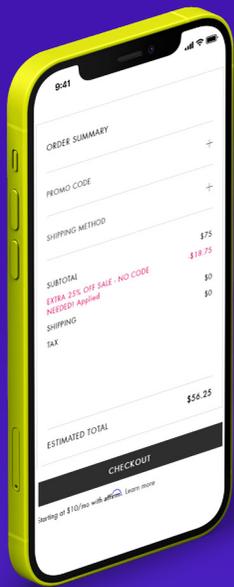
Note: Total retail figures used by Digital Commerce 360 exclude sales of items not normally purchased online such as spending at restaurants, bars, automobile dealers, gas stations, and fuel dealers

This sudden acceleration was felt across the ecosystem of payment processing players in addition to a new crop of alternative payment methods such as buy-now-pay-later (BNPL) platforms and new wallets like Shop and Google Pay. This acceleration also drove rapid reterminalization from analog to digital systems as the pressure to enable contact-less payments and other online features became urgent

The small segment of the population that was still used to shopping offline is now much more familiar with the online shopping ecosystem. What that has created is a renewed focus on checkout pages—and we’re starting to see experiences like this:

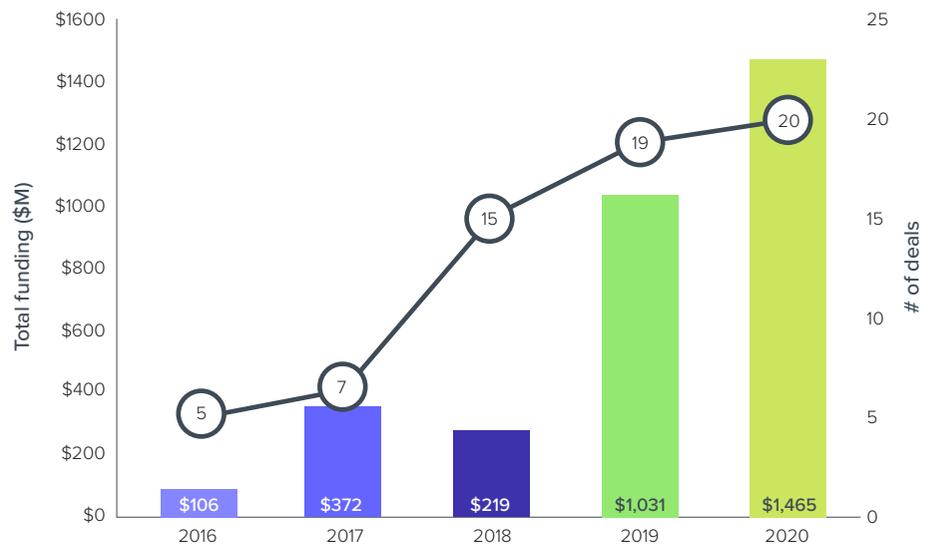


**BNPL CHECKOUT PAGE FOR AFFIRM<sup>47</sup>**



While the adoption of new wallets coming from players like Shopify and PayPal are fairly straightforward, payments have also morphed into new structures. “Tender types” have evolved from cash to credit & debit to new financing features such as BNPL. It is a common misconception to call these players lenders. We’d argue that they look a lot more like payments businesses than originators of consumer unsecured debt. Instead of being held to the confines of FICO, BNPL companies are building their own dataset that represents a full financial profile of a consumer).

**INCREASING INVESTMENT FLOWING INTO THE BNPL TREND<sup>46</sup>**



BNPL enables customers to change their relationship with cash flow and is often most powerful when it is known that a consumer has financial flexibility in combination with an unfairly low FICO score. In these cases, the opportunity begins at a consumer’s first checkout enabling a transaction(s) to occur that otherwise would not have, and potentially at a higher average order value (AOV). From there, the consumer is in the ecosystem of that BNPL vendor and a flywheel of referrals across other merchants in-network can occur—which sounds a lot like other payment networks we know well.

In this new tender type, a consumer pays in four interest-free payments (with a fee paid by the merchant) as opposed to one standard payment with a basic issued credit card. Upon repayment, that consumer can continue to use the BNPL provider across a wide network of merchants who accept it, much like you would with Visa, MasterCard, AmEx, or PayPal in the example below. If this trend continues these players will have built their own rails of credit outside of traditional credit providers.

In addition to accessing credit at a better rate than traditional credit providers, consumers are also now able to think in terms of steady monthly payments instead of a lump sum payment. BNPL enables consumers to match their inflows and outflows for a broader set of transactions rather than the more static environment of getting a

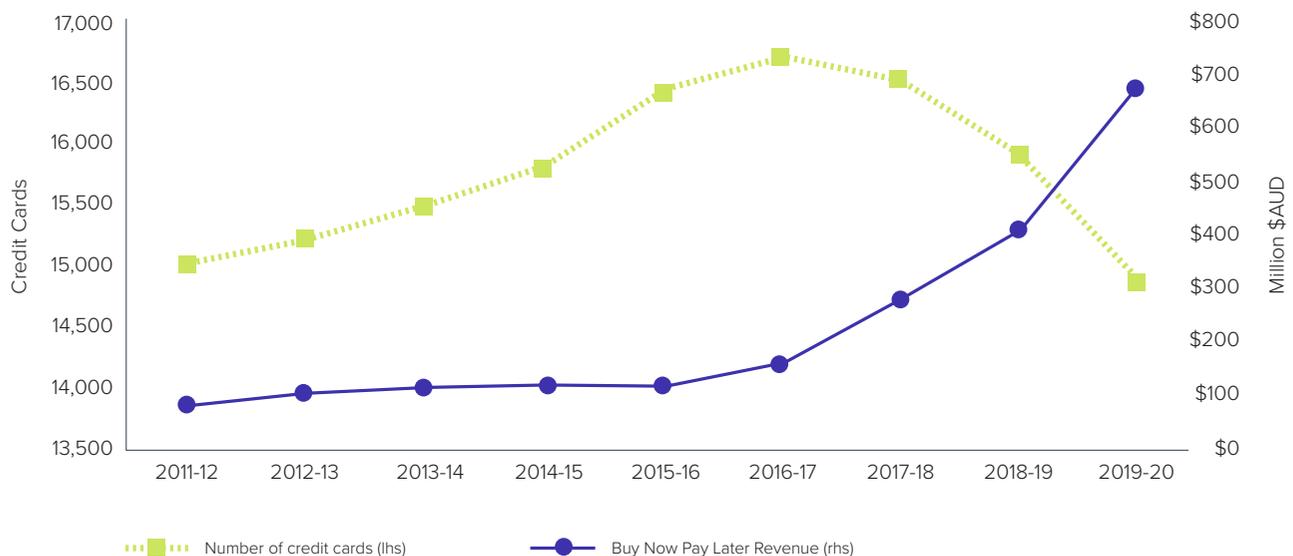
loan, which is typically one of the biggest areas of stress. During periods of a negative mismatch, consumers are able to take out a short duration loan. During periods of an overage, consumers can save. The flexibility of elastic balances enables consumers to have more control in real time over their finances.

### BNPL VALUE PROPOSITION<sup>48</sup>

	Higher conversion	Higher AOV
<b>affirm</b>	+8%	+85%
<b>afterpay</b>	+22%	+40%
<b>Klarna</b>	+30%	+41%
<b>scalapay</b>	+11%	+42%

### NUMBER OF CREDIT CARDS AND BUY NOW PAY LATER REVENUE IN AUSTRALIA OVER TIME<sup>49</sup>

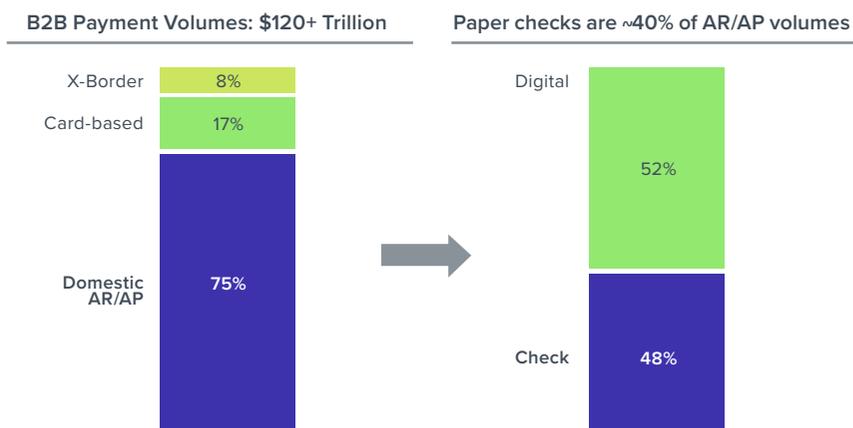
According to the Reserve Bank of Australia, the number of credit cards in Australia declined by 6.6% in 2019-20, as more consumers turned to BNPL providers rather than credit cards during the COVID-19 crisis



As businesses were locked down, the adoption of digital solutions increased exponentially.

There has been an equal amount of innovation on the B2B side of the payments house. Due to stay at home order during the pandemic, businesses were forced to adapt to a work-from-home environment with increasingly global payment participants almost overnight. Regardless of whether you are an SMB, mid-market, or enterprise business, an inordinate amount of time is spent on accounts payable and invoices. Prior to COVID-19, there were full back-office teams processing invoices, 50% of which were paid offline as the charts below demonstrate.

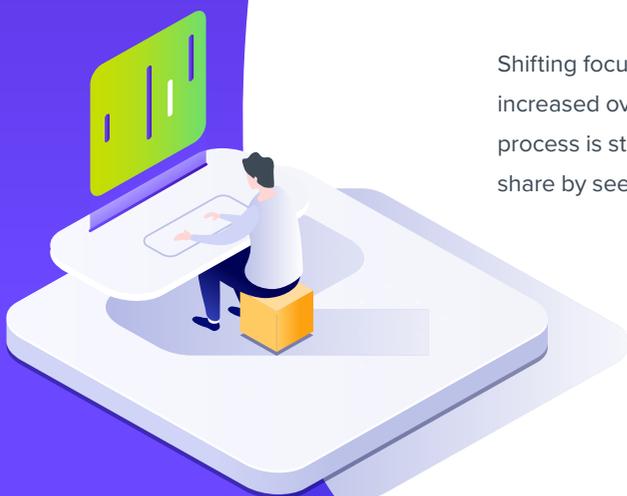
#### MASSIVE TAM WITH LONG RUNWAY FOR DISRUPTION<sup>50</sup>



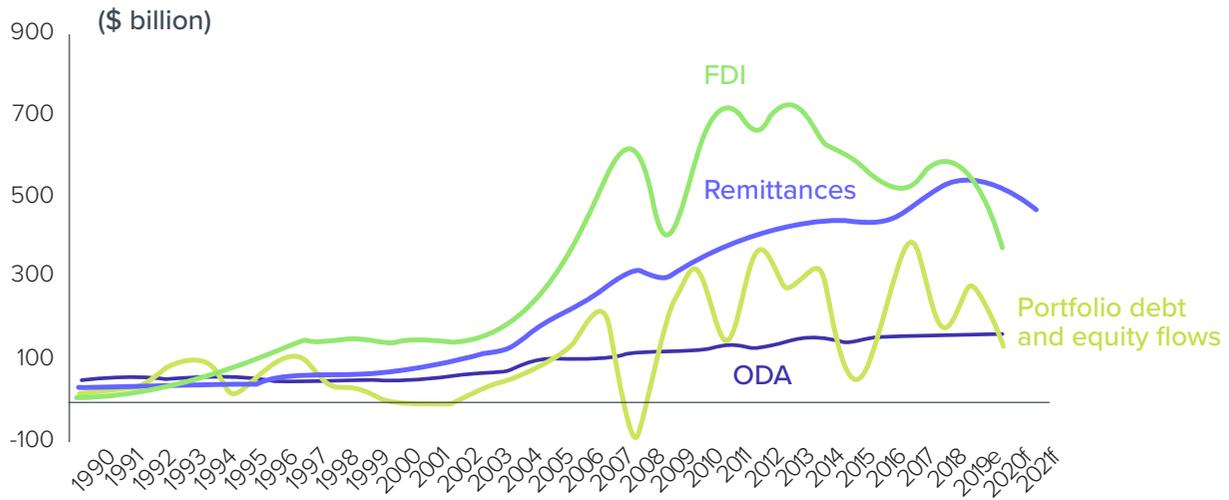
As businesses were locked down, the adoption of digital solutions increased exponentially. This acceleration came in the form of pureplay Account Receivable/Account Payable (AR/AP) solutions and also via embedded solutions in existing software suites such as Tipalti, Shopify, and Coupa. Making the situation even more complex, companies accelerated their push into new international territories with their customers, partners, and employees as Zoom meetings opened up the world.

Software platforms can serve global customer bases. However, integrating payments into an existing suite has amplified the need for cross-border payments solutions. While technology has completely upended the market for goods and labor, we believe that cross-border financial products have not kept up.

Shifting focus briefly to the consumer side of the equation, while remittance volumes have increased over time and make up a significant source of income for some countries, the process is still high-friction for consumers, with a few digitally-native players winning market share by seeking to simplify and speed up this process.

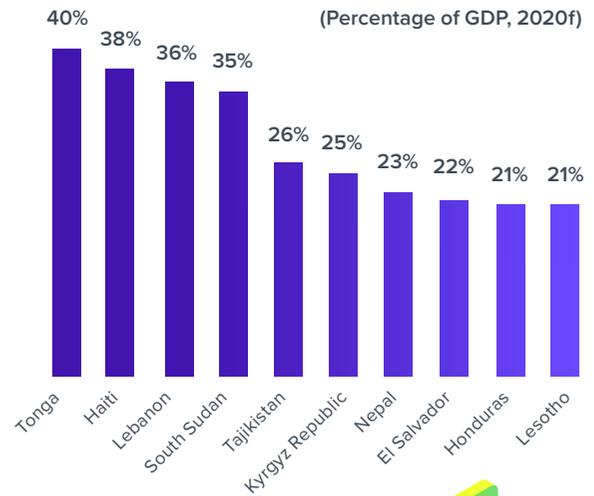
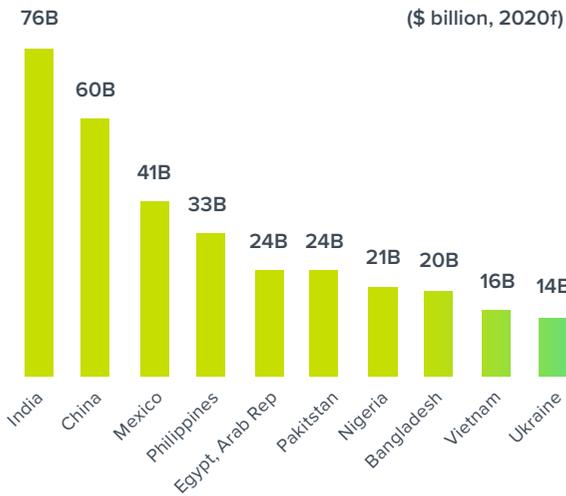


### GLOBAL REMITTANCE FLOWS<sup>51</sup>



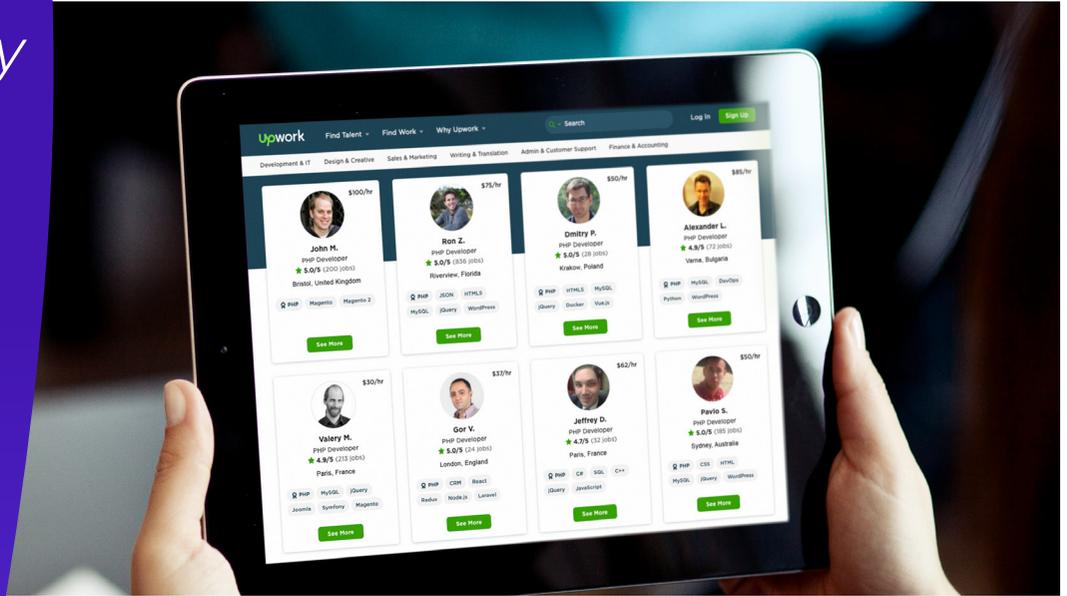
Note: Remittances to Low- and Mid-Income Regions have seen a steep pandemic-fueled decline from the previous high of \$531B in FY19

### TOP REMITTANCE RECIPIENTS IN 2020<sup>52</sup>

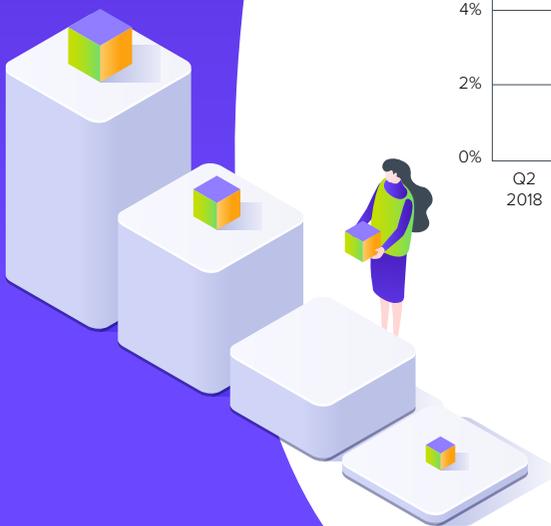
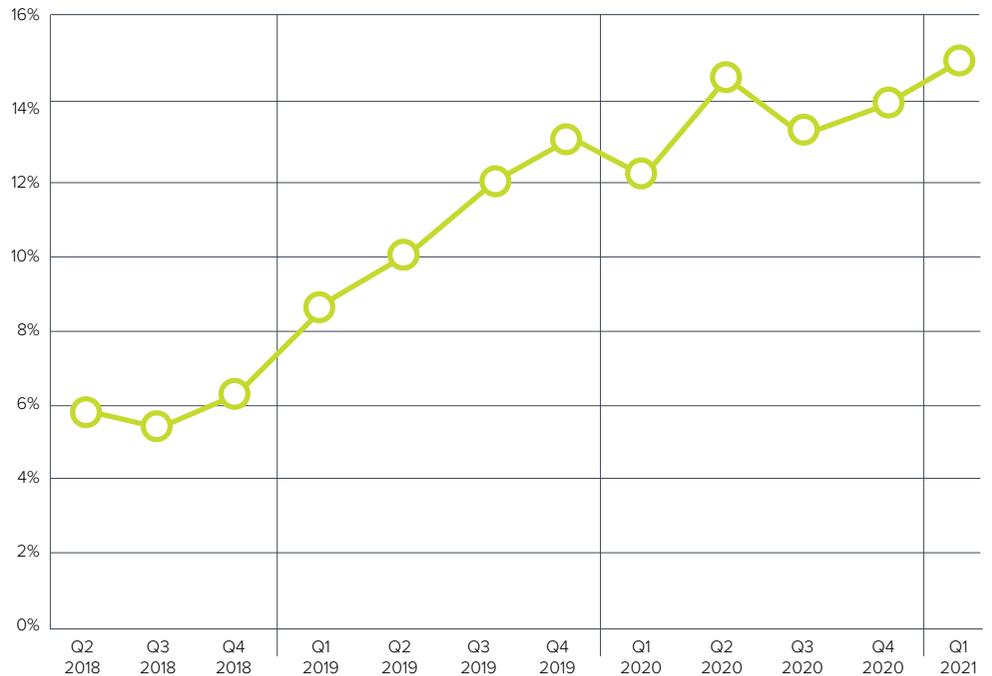


Technology has completely upended the market for goods and labor.

MARKETPLACES FOR WORK ARE NO LONGER LIMITED BY NATIONAL BORDERS<sup>53</sup>



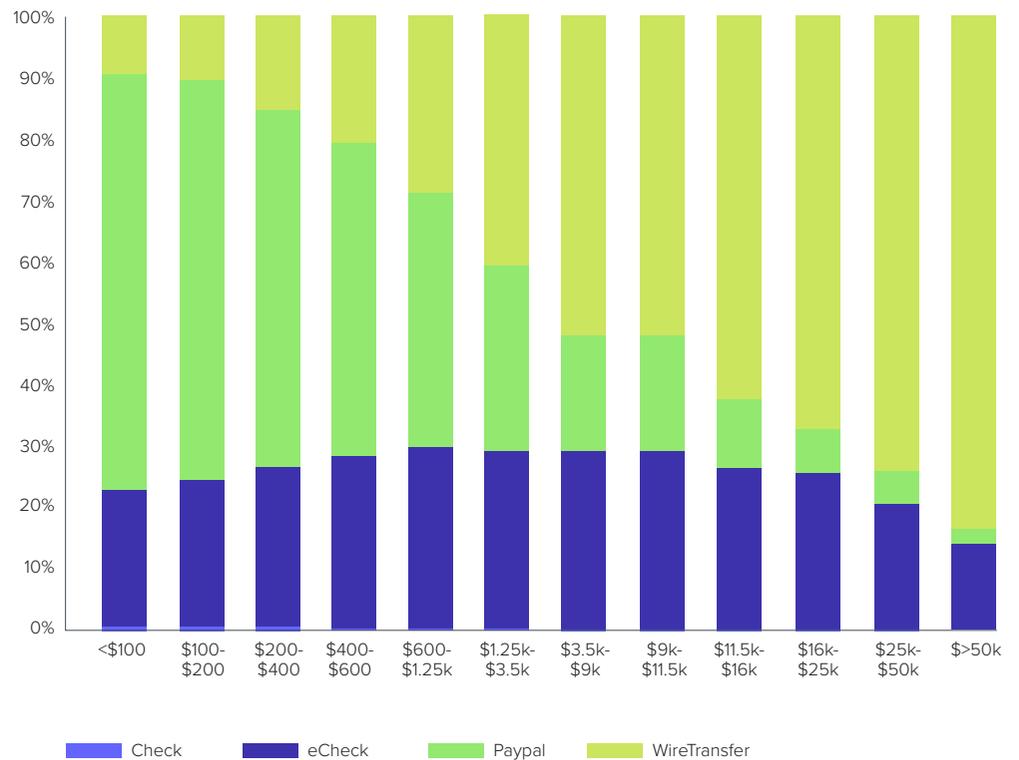
SHARE OF INTERNATIONAL VENDORS ACROSS KEY SUPPLY CHAINS IS GROWING OVER TIME<sup>54</sup>



# Payments and Payroll will transcend borders.

We continue to believe that one of the most powerful accelerants for this global aggregation of supply is cross-border B2B payments technology. Thousands of major marketplaces and enterprises are currently seeking a global supply of goods or labor, which currently drives trillions of dollars in these types of payments per year. Our opinion is that this phenomenon will enable massive global scale economic empowerment of consumers and businesses, and further will accelerate the trend and need for reliable cross-border payments.

## LARGER CROSS BORDER PAYMENTS TAKE PLACE VIA WIRE TRANSFERS VS SMALLER DEPEND ON E-WALLETS<sup>55</sup>



In the future, we imagine a global marketplace where companies and consumers can seamlessly move and transact across the globe. Thus, we believe that the demand for borderless wallets will increase as bank accounts transcend geography. Companies will need to make payments and drive payroll across regions as business transcends borders. The pandemic-driven move to work-from-home has extended this need from large corporate enterprises all the way down to startups and gig workers.

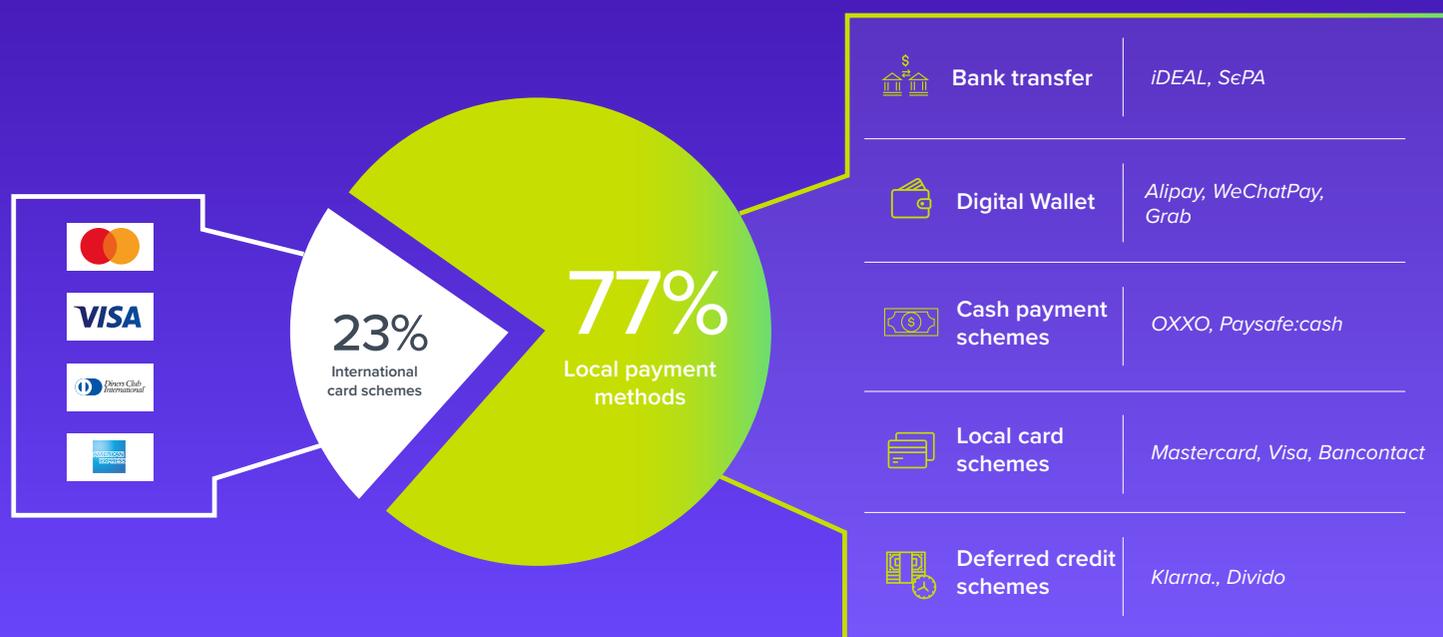
RISE OF PLATFORMS THAT MANAGE INTERNATIONAL PAYROLL<sup>56</sup>

							
About	Founded	2018	2016	2018	2015	2019	2015
	Geo	Germany	NYC/Israel	San francisco	SF	SF	Estonia
Funding	Total raised	~\$1M	\$191M	\$205M	\$161M	\$46M	\$9M
	Last round	Seed (May 2019)	\$100M Series C (Mar-21)	\$156M Series C (Apr-21)	\$100M Series C (Apr-21)	\$35M Series A (Nov-20)	\$7M Series A
	Investors	Atlantic Labs amongst others	Greenoaks, Scale Venture Partners, Insight, Bessemer amongst others	Spark Capital, A16z amongst others	Sequoia, Stripe, Index Ventures, amongst others	General Catalyst, Index, Sequoia, Two Sigma, amongst others	Karma, vc, Leap Ventures amongst others

This market is characterized by extreme complexity of payment types, legal structure, licensing, taxes, and settlement. With this level of complexity comes opportunity, as there is significant dollar value in any market that is managed in in silos. Automation started solving for revenue with automated POS systems. We

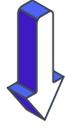
see that expenses, however, still remain highly fragmented. Players tackling these problems are starting to emerge and get to scale—a few examples include Tipalti in the enterprise space, Payoneer for SMBs, and Wise for consumers.

RISE OF PLATFORMS THAT MANAGE INTERNATIONAL PAYROLL OR PAYOUTS<sup>57</sup>



*B2B and B2C payment players are both dependent on monetization through interchange.*

B2B and B2C payment players are both dependent on monetization through interchange. If you have been in and around payments for long enough, you have heard voices in some countries talking about interchange going away. Today is no different, and there are a few factors amplifying those voices in this environment:



Some local governments (such as India and Brazil) are acting swiftly to reduce the cost of interchange on their populations



In the heat of competition, startups are giving interchange back to merchants and consumers in the form of acquisition spend



People are increasingly feeling like moving money should be costless as they are conditioned by other free products in FinTech



WHILE SOME SOUND THE ALARM FOR A BUBBLE, THOSE DEEP IN THE SPACE VIEW CRYPTO AS AN INEVITABILITY<sup>61</sup>



## Cryptocurrency Advances to the Mainstream



Note: This is just one person's opinion, not representative of the whole and should not be taken as an endorsement of these views

Remember all of those prior headlines focused on shady crypto mining operations, criminals pursuing nefarious transactions, and sketchy token schemes? Now fast forward past the last five years of peaks and troughs. Cryptocurrencies have moved from an expert fringe interest to a market sensation that we think will continue to grow in legitimacy and is likely to grow exponentially.

Bitcoin and Ether hit an inflection point of acceptance in 2020 and blockchain technologies became integrated into many operational functions. As of November 2020, the number of private addresses on Bitcoin reached an all-time high of 25.6 million<sup>58</sup>. The level of daily active addresses reached 1.4 million in April 2021, highlighting the more active engagement within the network<sup>59</sup>. We are also seeing the percent of Bitcoin supply being held for longer periods of time.

### BITCOIN PRICE OVER TIME<sup>60</sup>



We believe as the market matures, we are moving away from speculation being the main driver of the market for consumers. Apps that enable consumers to hold crypto as a store of value are becoming so sophisticated that consumers can now buy crypto with a quick credit card transaction. Moreover, stablecoin wallets are in demand not only with consumers, but with institutions as well.





HEADLINE

Square, Inc. (NYSE: SQ) announced today that it has purchased approximately 4,709 bitcoins at an aggregate purchase price of \$50 million...The investment represents approximately 1% of Square's total assets as of the end of the second quarters<sup>63</sup>.



We are starting to see an influx in the number of larger holders and institutional accounts that are holding bitcoin as a treasury asset. We've recently witnessed the introduction of crypto ETFs. Institutions have officially started moving their asset allocations to Bitcoin and institutional custodians like NYDIG and Coinbase are focused on serving this large institutional demand<sup>62</sup>. Going forward, we don't think people will be highlighting the one-off investments that corporations are making with brave treasury teams, but rather we believe we'll see the asset mature to become a broad-based core feature in financial functions.

We expect that we've only scratched the surface for the number of Bitcoin's use cases as a native currency on the internet. We now take it for granted that email can be exchanged interoperably. We expect that we will soon also take for granted that money can be sent interoperably on the internet.

We are also witnessing "decentralized finance" (DeFi) make its way into common parlance as an umbrella term for applications of cryptocurrencies geared towards disrupting traditional financial intermediaries. The DeFi applications are executed on a blockchain, independent of control from any single entity, in the hope that they make our financial system more resilient and transparent. DeFi crypto market cap has increased from \$2 billion in January 2020 to \$126 billion in April 2021, highlighting the momentum behind this trend<sup>64</sup>. "Non-fungible tokens" (NFTs) are also starting to proliferate as creators release the first generation into nascent bidding platforms such as Rally.



Note: This is just one person's opinion, not representative of the whole and should not be taken as an endorsement of these views



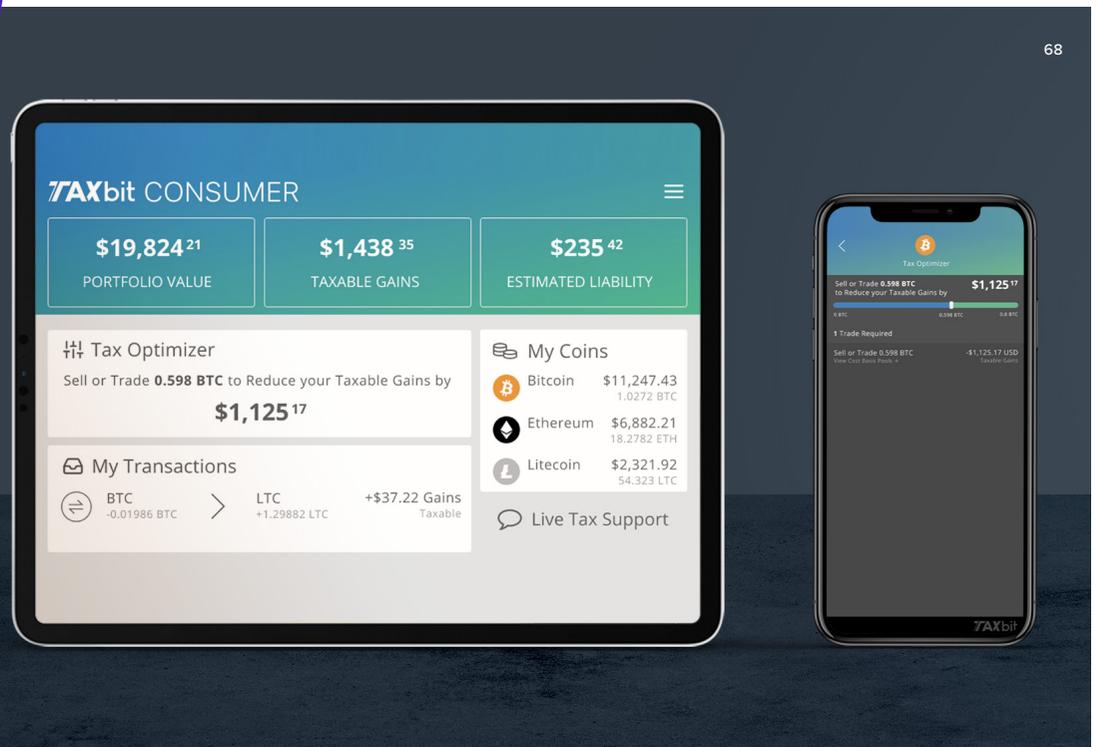
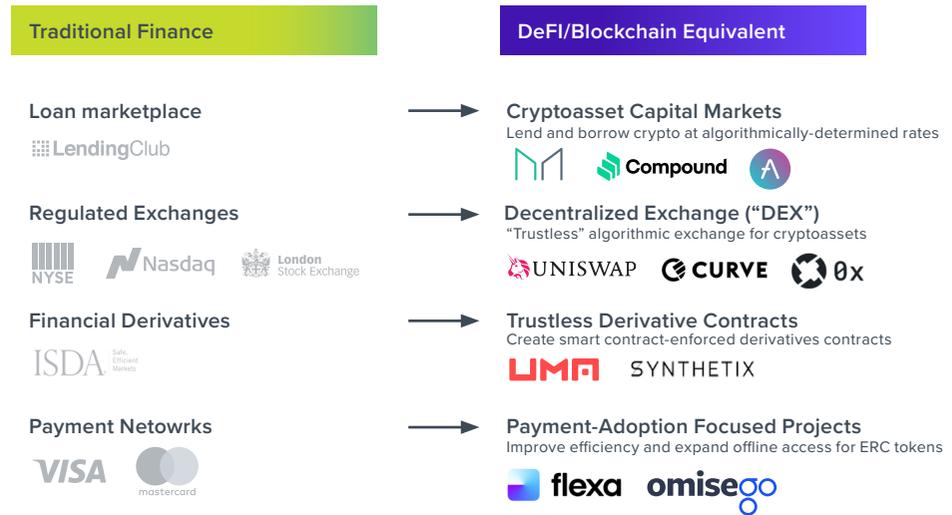


## HEADLINE

PayPal has entered the cryptocurrency market, announcing that its customers will be able to buy and sell Bitcoin and other virtual currencies using their PayPal accounts. Those virtual coins could then be used to buy things from the 26M sellers which accept PayPal, it said. All could be stored “directly within the PayPal digital wallet,” the company said<sup>66</sup>.



## DEFI IS BUILDING TRADITIONAL FINANCIAL INFRA FOR CRYPTO<sup>67</sup>



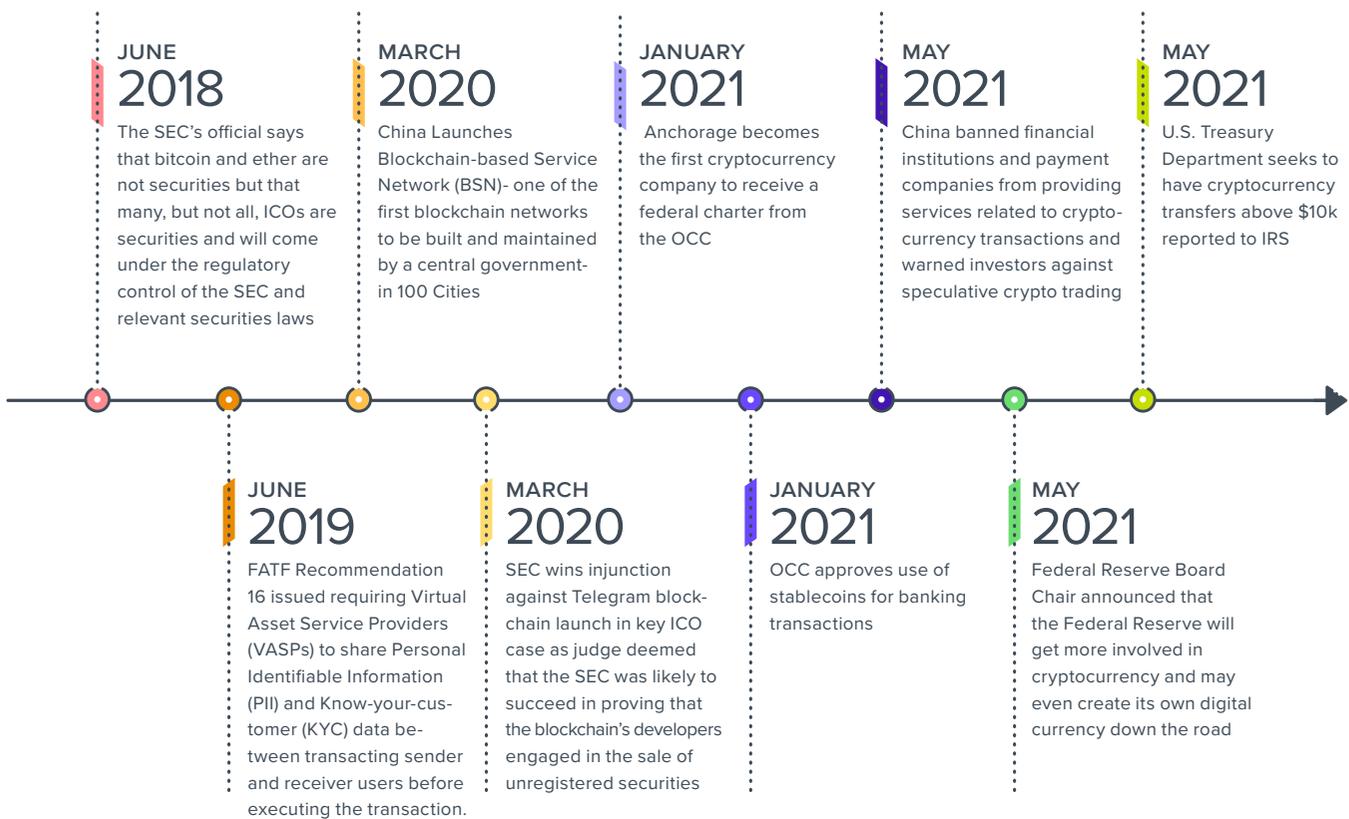
As a result, we think applications to support the crypto community will also become mainstream, routine, and simple. Tax, accounting, and custody are examples of functions which need specialized support.



Finally, we expect volatility in the digital asset market to increase with additional government scrutiny and regulations. The last few years brought about the advent of a regulatory infrastructure: Bit Licenses started in 2015 in New York; the Federal Reserve said they are considering a potential digital analog for the dollar; and in

preparation for tax season, the Internal Revenue Service established its guidance on reporting cryptocurrency transactions. Outside the U.S., Singapore, one of the most progressive sovereigns towards crypto, is directly funding blockchain projects<sup>69</sup> while China has made blockchain adoption a state priority<sup>70</sup>.

## EVOLUTION OF CRYPTO REGULATION OVER TIME<sup>71</sup>



Note: Please note that this graphic is not exhaustive but only indicative of the notable regulatory events over this period



### HEADLINE

*Paul Tudor Jones Letter - May 2020 "The most compelling argument for owning Bitcoin is in the coming digitalization of currency everywhere, accelerated by COVID-19, Bull markets are built on an expanding universe of buyers. Central to the price of Bitcoin is how many more (or less) owners of Bitcoin will there be beyond the 60M who currently own it... Something appears wrong here and my guess is it is the price of bitcoin"<sup>72</sup>.*



## HEADLINE

*NEW YORK (Reuters) - Online brokerage startup Robinhood plans to launch commission-free cryptocurrency trading, the company said on Thursday, riding a wave of interest from retail investors for the new asset class. Starting in February, Robinhood customers will be able to buy bitcoin and ether, the two most popular virtual coins<sup>73</sup>.*



In December, FinCEN (U.S. Treasury) proposed rules for crypto transactions that quickly received backlash from market participants<sup>74</sup>. The goal stated in these rules was to “protect national security, assist law enforcement and increase transparency while minimizing the impact on responsible innovation.” The reality of this proposal was that it would cause cryptocurrency service providers to report on transactions with far more detail than is required by cash transactions today. May 2021 brought with it a fresh set of crypto regulation—and accompanying price volatility—as the United States mandated that any transfer of cryptocurrency assets worth \$10,000 or more to be reported to the IRS while China banned payment companies and financial institutions from providing services related to cryptocurrency transactions. We have a long and winding road ahead as regulation in this space matures with the industry and while there are many unknowns, we do expect to see increasing regulatory clarity and parity between the digital assets ecosystem and traditional financial system. With increased regulation often comes volatility in the near term and stability in the longer term as many questions regarding reporting, compliance, and tax implications are finally answered.





## Bringing It to a Close

We believe all the changes we have talked about in this paper and observed in the world are inexorably moving the FinTech ecosystem toward a more open architecture. As FinTech infrastructure has flourished, it has decoupled the consumer brand from the capital source. We are now seeing an explosion of FinTechs driving underwriting and product innovation to meet the needs of heretofore underserved or underserved communities while leveraging the balance sheets of capital providers that are freed from the burden of investing millions into developing their own brand to secure product distribution. While we are unsure what exactly the future is going to bring, we feel confident in our opinion of the direction in which it is headed.

We Think We'll See 5 Key Changes in FinTech:



**New cohort of consumer-facing FinTechs take over distribution** Consumer FinTechs have captured significant attention with simplicity and elegance, and they have also eclipsed the scale of most banks. Moreover, the rise of FinTech infrastructure players has lowered the barriers to launching a consumer FinTech company, adding to the proliferation of consumer-facing FinTechs.



**New entrants in the banking space become fast-growing sources of capital** New entrants are not obliged to spend millions on brand-building to compete with banks that have a large consumer presence, like BofA and Wells Fargo, as they can now rely on FinTechs to scale distribution. This has allowed little-known regional banks to see explosive deposit and loan growth.



**New categories of consumers are better served** We are seeing the beginnings of a more inclusive financial ecosystem as this explosion of consumer FinTech players tap into the economic potential of heretofore underserved segments. Vertical neobanks – for instance, those targeting immigrants and thin-file consumers - are bringing new consumers into the financial fold with a focus on building long-term financial health.



**New categories of B2B are eliminating friction** We expect that B2B FinTechs will remove friction from the underserved. We have long tolerated extensive settlement dates, costly FX, multiple payment methods, and complexity with international payments. We expect innovation to eliminate friction and invent elegant experiences similar to consumer-based ones.



**Cryptocurrency will find use cases that enable broader market acceptance** We expect that cryptocurrency will enable payment systems to interoperate seamlessly and fiat will begin to replicate many features of crypto. Today crypto still feels like a solution in search of a problem, but that seems like a temporary concern as use-cases continue to evolve.

# FUTURE OF FINTECH<sup>75</sup>

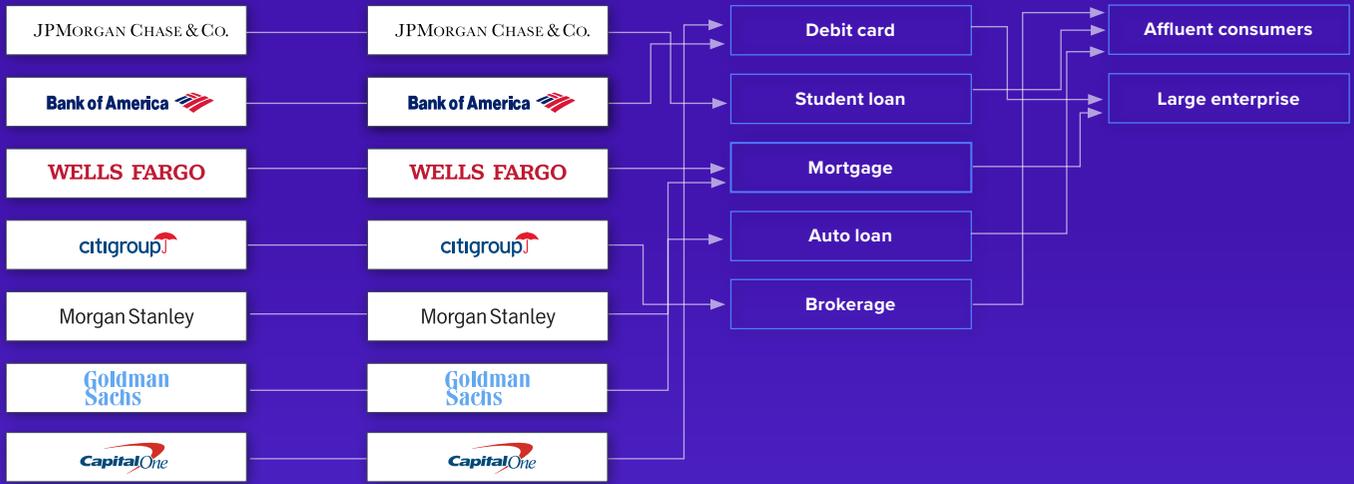
CAPITAL SOURCES

ORIGINATORS OF FINANCIAL PRODUCTS

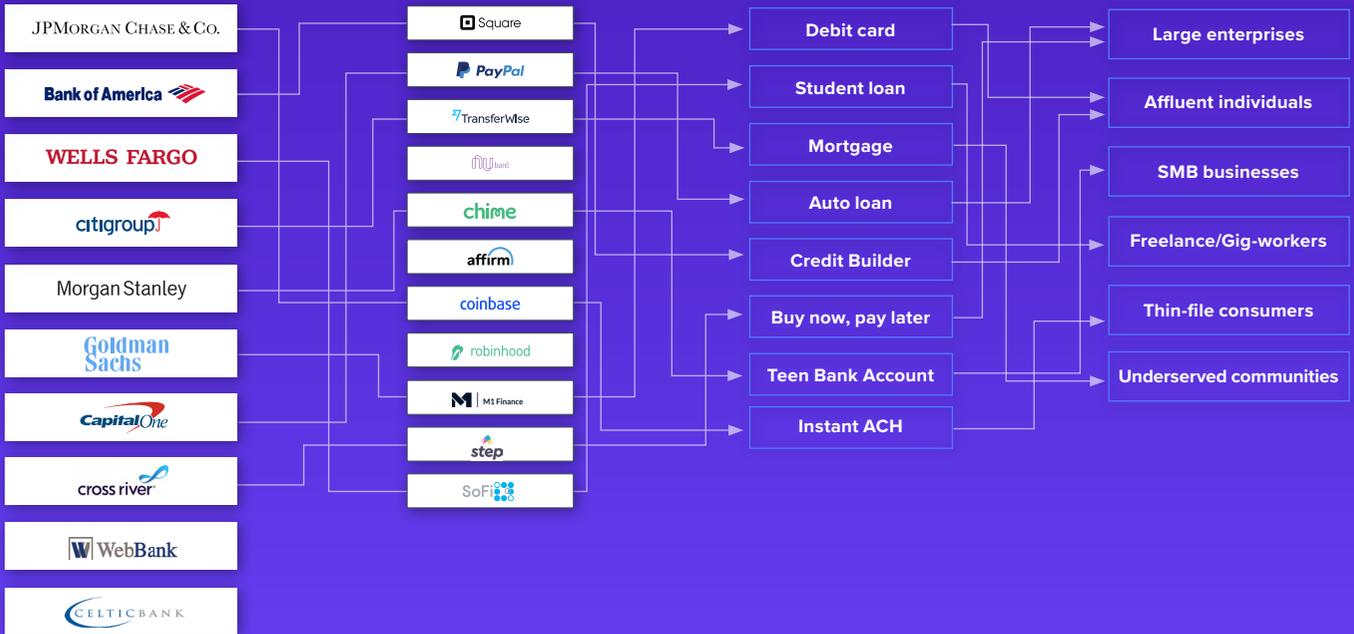
TYPE OF FINANCIAL PRODUCTS

CONSUMER

THEN



NOW



RESULTS

**BETTER RATE FOR PRODUCTS**

**BETTER EXPERIENCE CONSUMERS**

**MORE CHOICE FOR CONSUMERS**

**MORE BANKED POPULATION**

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#### JACQUELINE D RESES

Jackie is the CEO of Post House Capital an investment firm focused on building tech-enabled fintech and ecommerce businesses. Prior, she ran Square Capital, part of Square Inc. Square Capital offers banking products for small businesses which have previously been excluded from traditional sources of capital and services. She also was the Executive Chairman of Square Financial Services, a recently approved FDIC insured bank owned by Square and the first industrial bank in the US started by a technology company.

Prior to Square, Jackie was the Chief Development Officer for Yahoo and the head of the US media group at Apax Partners, one of the largest global private equity firms. Jackie also spent seven years at Goldman Sachs in mergers and acquisitions and the principal investment area. Jackie is Chairman of the Economic Advisory Council of the Federal Reserve Bank of San Francisco and the Board of Advisors of the Wharton School of the University of Pennsylvania. She also serves on the boards of Affirm, Nubank, and Wish (Context Logic) and other private companies.

Jackie received a bachelor's degree in economics with honors from the Wharton School of the University of Pennsylvania.



#### MICHAEL B. GILROY

Michael B. Gilroy is a General Partner at Coatue and co-leads the FinTech practice. Coatue is one of the largest dedicated technology funds in the world with more than \$45 billion in assets under management.

Michael has been investing in and advising technology companies his entire career. He previously led rounds and/or served on the boards for Bond (banking-as-a-service), Bitso (LatAm crypto exchange), Cloudwalk (latam merchant acquirer), ContentSquare (user analytics), Hugo Insurance (non-standard auto insurance), Meld (fintech meta-layer), Melio Payments (SMB payments), Mercury (business banking), Pinwheel (payroll infrastructure), Quanto (open banking infrastructure), and Step Financial (banking for teens). He incubated Bond and Meld.io. Michael was investor and on the boards of Arbor (marketplace for people-based data) and Beam Solutions (AML / KYC compliance) prior to their acquisitions by Acxiom and Jumio respectively.

Michael is very passionate about building the fintech community. In 2015, he created a bi-coastal quarterly series called FinTech Central. Michael studied Economics at the University of California at Berkeley. He was awarded Young Alumni of the Year in 2017 for his efforts in building out the alumni community in tech.



#### SAANYA OJHA

Saanya is an investor at Coatue based in Silicon Valley where she focuses on FinTech and invests in companies across their lifecycles. Coatue is one of the largest dedicated technology funds in the world with more than \$45 billion in assets under management.

Saanya has invested in companies, including but not limited to Bharatpe (Indian SMB credit), Bond (banking-as-a-service provider), Cloudwalk (Brazil-based Merchant Acquirer), Cred (Indian consumer fintech), M1 Finance (consumer investment and savings platform), Melio Payments (SMB payments), Mercury (business banking), Pinwheel (payroll infrastructure), Quanto (open banking infrastructure), Step Financial (banking for teens), and has also incubated Meld.io (FinTech meta layer.) Prior to Coatue, Saanya was at Goldman Sachs Investment Partners, where she started her career as a hedge fund analyst focused on global long-short equity, before eventually following her interest in company-building to transition to the Private investment team. She previously worked at the Quantitative Analytics team at JP Morgan, helping develop capital risk models for Basel III compliance.

Saanya graduated summa cum laude from the Huntsman Program at the University of Pennsylvania with a BS in Economics from the Wharton School and a BA in International Studies from the College of Arts and Sciences.

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