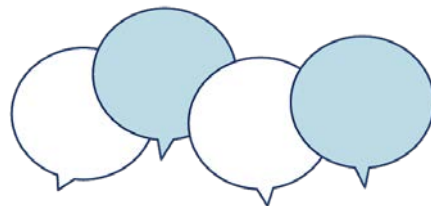


Banks in fintech

 CBINSIGHTS





TRUSTED BY THE WORLD'S LEADING COMPANIES



“We use CB Insights to find emerging trends and interesting companies that might signal a shift in technology or require us to reallocate resources.”



Beti Cung,
CORPORATE STRATEGY, MICROSOFT





Own the future.

The CB Insights machine intelligence platform synthesizes, analyzes and visualizes millions of documents to deliver fact-based insights. It enables smart companies to predict trends, see competitors' strategies, explore new markets and reveal opportunities to capitalize on change.

[CLICK TO TRY CB INSIGHTS](#)

What We're Going to Cover

1



Build, buy partner:
banks & fintech

2



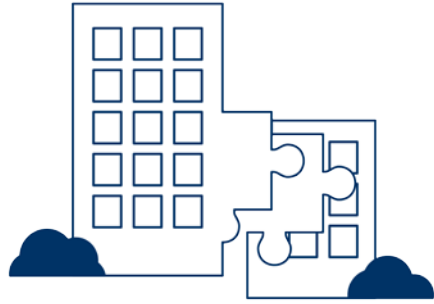
JPMorgan fintech
playbook

3



Goldman Sachs
fintech playbook

Build, Buy, or Partner



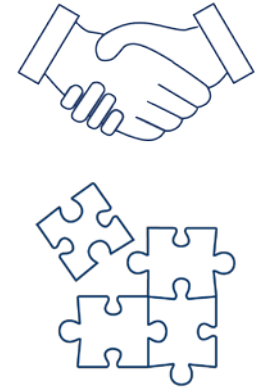
Build

successful when infrastructure is in places, and **leadership** making **long-term decisions**



Buy

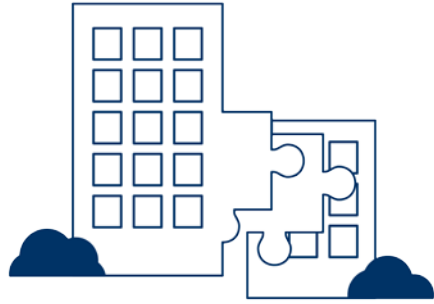
successful when infrastructure is in places, and **services can be integrated**



Invest & Partner

successful when deal is **beneficial** to **both parties**

Build, Buy, or Partner



Build

successful when infrastructure is in places, and **leadership** making **long-term decisions**



Buy

successful when infrastructure is in places, and **services can be integrated**

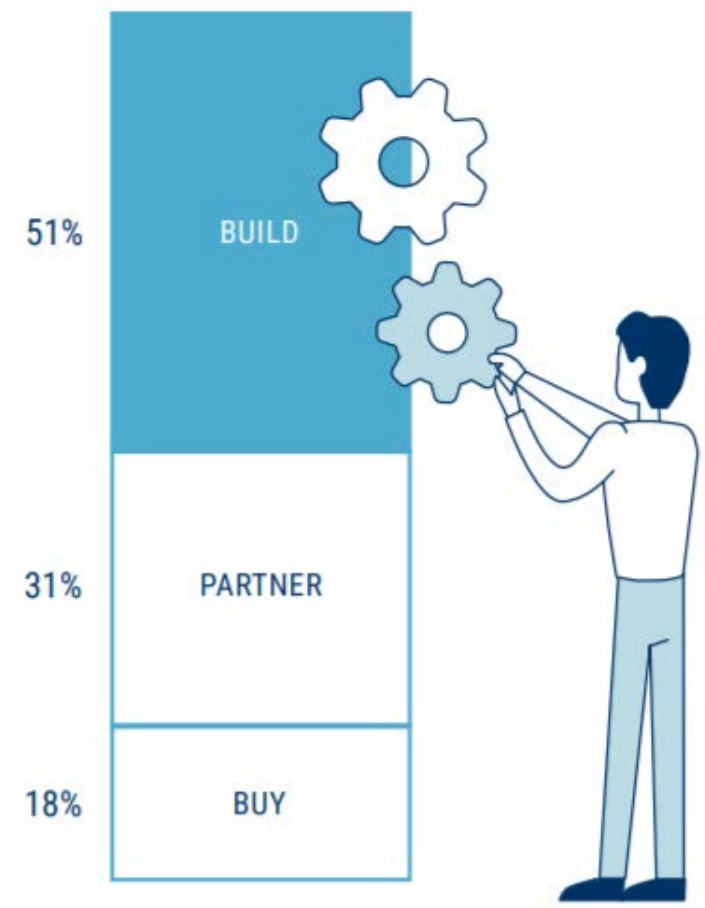


Invest & Partner

successful when deal is **beneficial** to **both parties**

Companies take an insular view on how they will attack innovation

Companies are 2.8x more likely to build than buy when asked, “Please rank your company’s orientation toward creating innovation.”



Building requires immense leadership and foresight



Build tactics: Leadership

Goldman
Sachs

Goldman
Sachs

JPMORGAN CHASE & CO.

We've always had an **overweight to engineering**, as you know, and **building software**. And that's served us in great stead over **many, many decades** and we continue to do that.



Marty Chavez
Goldman Sachs, CFO

Build tactics: Talent

Goldman
Sachs

Goldman
Sachs

JPMORGAN CHASE & CO.

Goldman Sachs is currently advertising over **50 engineering positions in its San Francisco office** related to Marcus, its online personal lending platform.

The new opportunities in San Francisco include back-end developers and “scrum masters” at the analyst, associate and vice president levels, plus software development operations (DevOps) and application development teams.

Build tactics: Capital

Goldman
Sachs

Goldman
Sachs

JPMORGAN CHASE & CO.

In 2016, we spent more **than \$9.5 billion in technology** firmwide, of which approximately \$3 billion is dedicated toward new initiatives. Of that amount, **approximately \$600 million** is spent on **emerging fintech solutions** – which include building and improving digital and mobile services and partnering with fintech companies.

Build, Buy, or Partner



Build

successful when infrastructure is in places, and **leadership** making **long-term decisions**



Buy

successful when infrastructure is in places, and **services can be integrated**



Invest & Partner

successful when deal is **beneficial** to **both parties**

Why banks **have not** acquired many fintech startups to date



Silicon Valley best practices sometimes don't reconcile with bank regulatory requirements



Fintech acquisitions are typically non-accretive and do not provide return on equity

Banks are finally going after fintech startups

	Artificial intelligence	White-label banking	Lending/ credit	Online banking	Payments	Personal financial management	Pricing tool	Real estate	Trading	Wealth
BBVA Compass			conianza	HOLVI denizen	openpay			MADIVA		
Goldman Sachs			Finaceit ⁴⁸ FINAL			claritymoney				Honest Dollar
BNP PARIBAS				COMPTONICKEL						GAMBIT
Capital One							Levelmoney PARIBUS			
JPMORGAN CHASE & CO.					MCX wepay					
ally									TradeKing	
CREDIT SUISSE			TRADEPLUS ⁴⁹							
FIRST REPUBLIC BANK			gradifi							
Silicon Valley Bank		STANDARD TREASURY								
TD Bank	LAYER 6 ⁵⁰									

 = acquired after September 1, 2017

“These deals are usually as much about **bringing in good talent** as well as the product themselves.”



Marcus:
BY GOLDMAN SACHS®

Harit Talwar

Head of Digital Finance

Build, Buy, or Partner



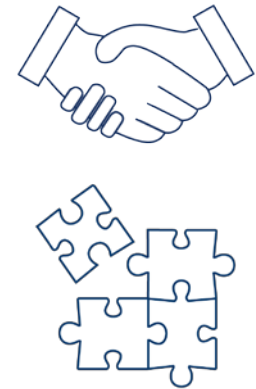
Build

successful when infrastructure is in places, and **leadership** making **long-term decisions**



Buy

successful when infrastructure is in places, and **services can be integrated**



Invest & Partner

successful when deal is **beneficial** to **both parties**

Where the top US banks are investing in fintech

Citi, Goldman, and JPMorgan have been the most active US banks investing in tech since 2012.

	Rank	Blockchain	Data Analytics	Insurance	Personal Finance	Wealth Management	Capital Markets Software	Lending	Payments & Settlement	Real Estate	Regulatory Technology	Supply Chain
	1	Digital Asset AXONI CIRCLE	visible alpha KENSHC DataFox (PERSADO)	OSCAR CompareAds	Personal Finance	FOLIO motif	SYMPHONY PLAID CURVEGLOBAL IPREO TRADESHIFF	nav MARQETA neyber Finance1st nmi Square Aquilon	better billtrust mo nanoPay CADRE	ACADIASOFT droit Digital Reasoning	NYSHEX	
	2	AXONI SETL Digital Asset Chain Cobalt r3	KENSHC (PERSADO) visible alpha AYASDI SELERITY	Linkable	claritymoney Betterment	SYMPHONY PLAID CURVEGLOBAL TRADEIT m D A Q InvestLab	BlueVine VIVO Square Aquilon	C2FO highradius jumio	ACADIASOFT			
	3	Digital Asset AXONI	KENSHC MOBILE		Dave	motif openfin	ACADIASOFT SYMPHONY CURVEGLOBAL investcloud	PROPER LevelUp BIT.com Square	ROOSTIFY	ACADIASOFT Cloud9		
Morgan Stanley	4		KENSHC visible alpha	众安保险			SYMPHONY ERIS eleni iCapital	LU.com		ACADIASOFT		
	4	r3 AXONI	KENSHC ALT X visible alpha				SYMPHONY ERIS eleni iCapital	FAST PAY TRANSACTION		droit canopy		
	6	r3	KENSHC visible alpha				SYMPHONY CURVEGLOBAL	FAST PAY TRANSACTION	BIT.com	ACADIASOFT		
	7	r3			Moven			TRANSACTION		SECURE KEY		
	8	Chain						TRANSACTION				
	8	r3						InstaMed				
	8	Digital Asset						highradius TRANSACTION				

Key:

- New 2017-2018 portfolio co.
- Acquired by investor
- Acquired

Note: Graphic includes both dead and acquired companies.

Where the top European banks are investing in fintech

Santander, Credit Suisse, and UBS have been the most active European banks investing in fintech.

	Rank	Blockchain	Data Analytics	Personal Finance	Wealth Management	Capital Markets Software	Lending	Payments & Settlement	Regulatory Technology
	1	Digital Asset Elliptic ripple r3	visible alpha	Curve	Real estate Investing ROOSTIFY SIGFIG	personetics TRADESHIFT	AutoFi Credits Kabbage	payever PAYJOY PayKey iZettle myCheck	SOCCURE
	2	r3	Dataminr		canopy	SYMPHONY iCapital NETWORK	WeLab PROPPER		ACADIASOFT Digital Reasoning
	3	Digital Asset r3	visible alpha		SIGFIG	SYMPHONY iCapital NETWORK	信而富 China Rural Finance		ACADIASOFT Digital Reasoning
	4	r3				SYMPHONY OpenExchange CURVEGLOBAL		FORM3 FINANCIAL GROUP	Digital Reasoning iCloud9
	4	r3			PAYFAMELIA	SYMPHONY CURVEGLOBAL		PayCar	Digital Reasoning ACADIASOFT
	6	r3		solarisBank Atom saveUP DESTACAME.d				sum up*	
	6	r3	visible alpha quantexa			TRADESHIFT			ACADIASOFT kyriba
	8	r3				TrustBills SYMPHONY		tyfone	ACADIASOFT
	8	r3				ERIS SECURIS SYMPHONY		TagPay	ACADIASOFT
	8	Digital Asset		solarisBank tink			CLOUD LENDING SOLUTIONS		BehavioSec
	8	r3					fintonic WeLab Kabbage	twisto	
	12	SETL		Linxo					
	13	r3							
	13	r3							

Key:
 New 2017-2018 portfolio co.
 Acquired by investor
 Acquired

JPMorgan is a good example of using digital partnerships to scale product offerings

Chase Business Quick Capital



Chase Digital Mortgage



Chase Auto Direct



“We are a technology company.”



Marianne Lake, CFO

**JPMORGAN
CHASE & CO.**

“We are a technology company.”



Lloyd Blankfein, CEO

**Goldman
Sachs**

Let's dive into the
playbooks of:

JPMORGAN CHASE & CO.

&

Goldman
Sachs



Let's dive into the
playbooks of:

JPMORGAN CHASE & CO.

&

Goldman
Sachs



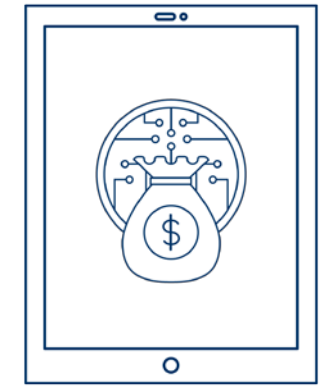
Our view of JPMorgan's playbook from the consumer perspective



① Digitally **create account** with bank



② Gain access to **payment network**



③ Bundle digital **financial services**

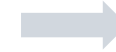
Our view of JPMorgan's playbook from the consumer perspective



① Digitally **create account** with bank



② Gain access to **payment network**



③ Bundle digital **financial services**

Enable digital account creation for consumers

Getting started

Let's get started opening your Chase Total Checking account.

This application should only take a few minutes to complete.



Tell us about yourself. You'll need your Social Security number, contact info and driver's license or state-issued ID.

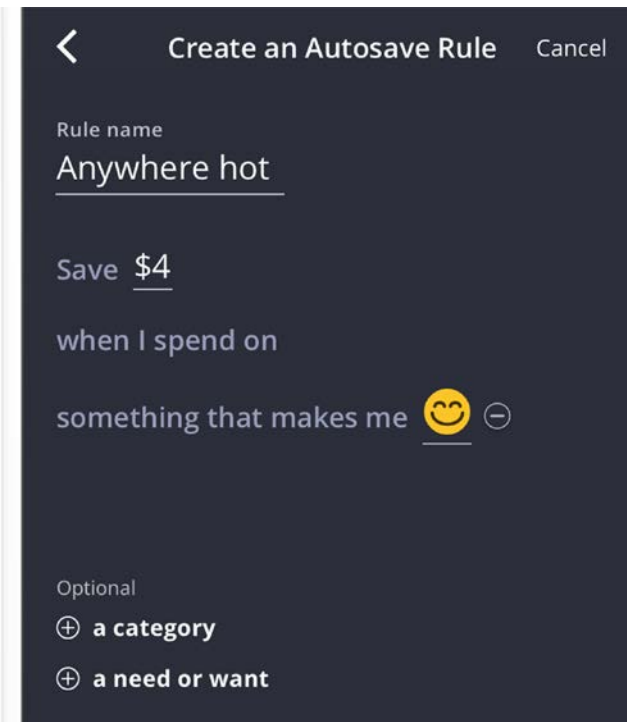
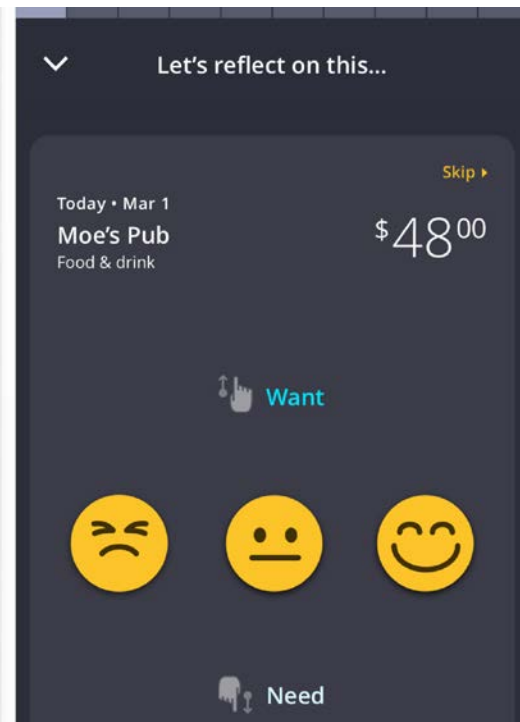
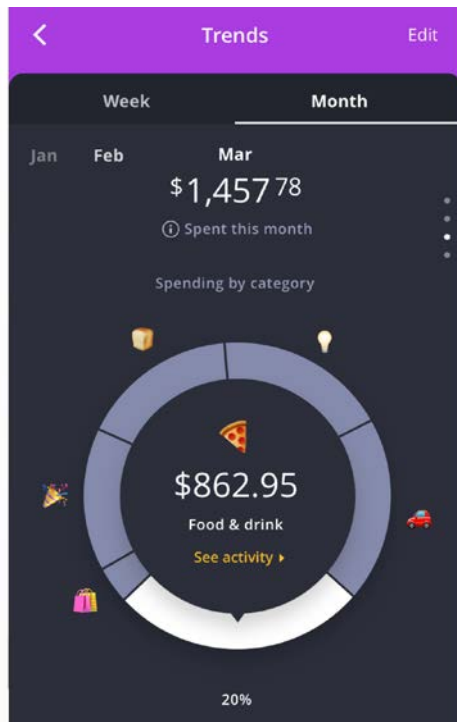


Add money using a debit card or a transfer from your Chase account.



Start using your new accounts.

JPMorgan launches Finn, but traction is low to date



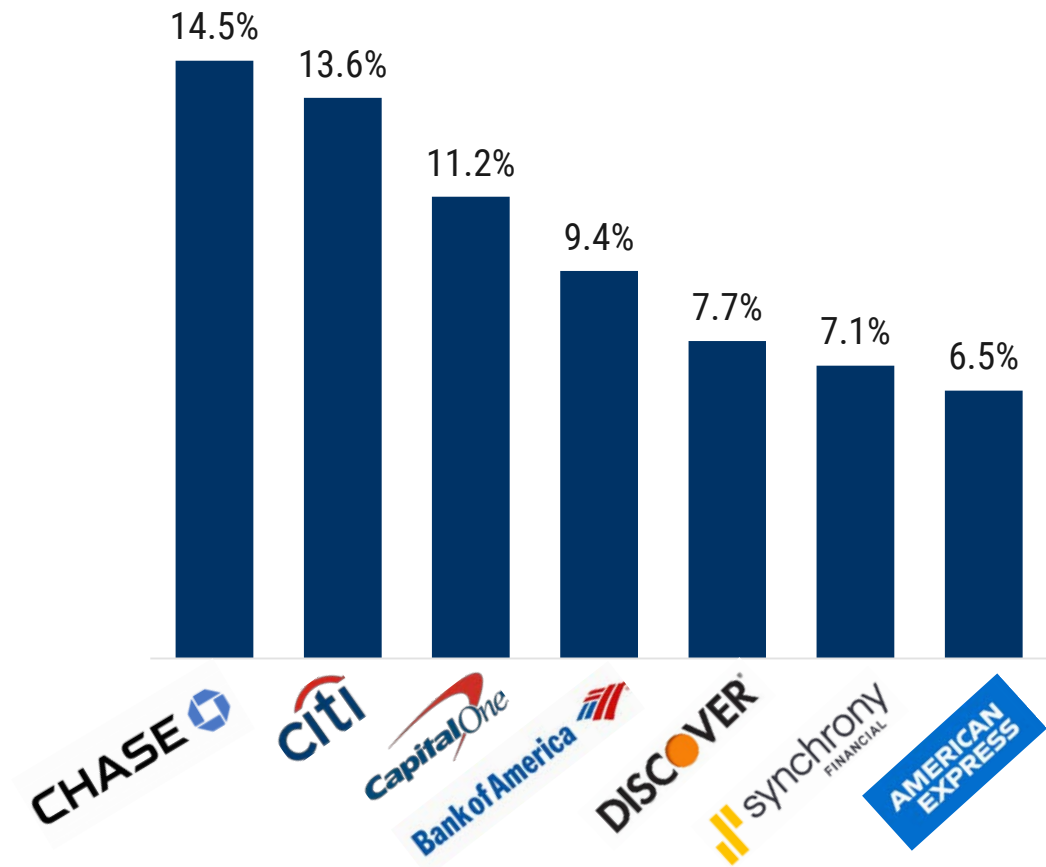
"While I like the idea of Chase competing in the online bank space, the way they are approaching it doesn't make much sense."

The only real benefits will be the ability to open the checking account outside of a Chase serviced state and the new mobile app has arguably less useful functionality than the Chase Mobile app."

Rewards and partnerships entice consumers to become customers



US credit card balance market share in 2017



JPM's playbook, from the consumer perspective:



① Digitally **create account** with bank



② Gain access to **payment network**



③ Enter digital **financial services**

Chase Pay enables omni-channels payments

○ POS **offline**

○ POS **online**

○ **P2P**



Chase Pay offline partners offer rewards

POS **offline**

Earn 10% cash back at Best Buy[®] stores



POS **online**



P2P

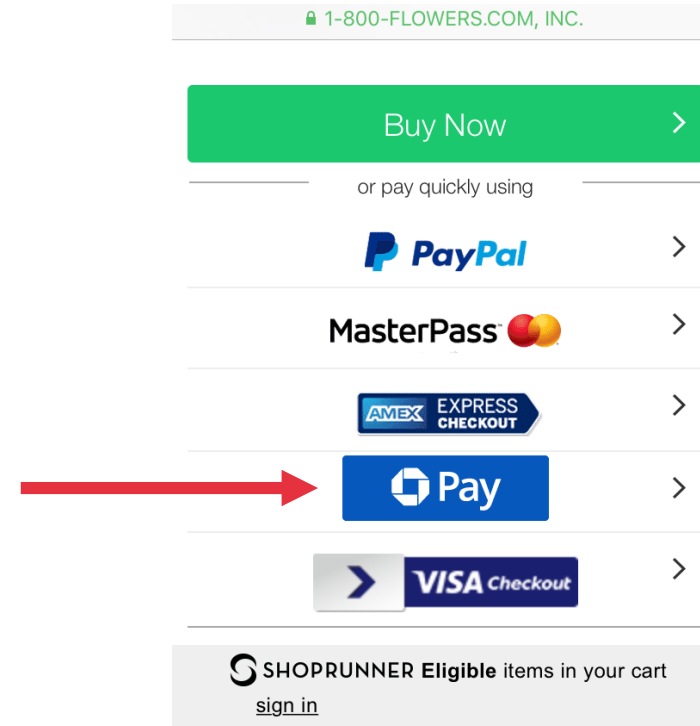
Earn 35¢ per gallon

Chase Pay enables instant online checkout

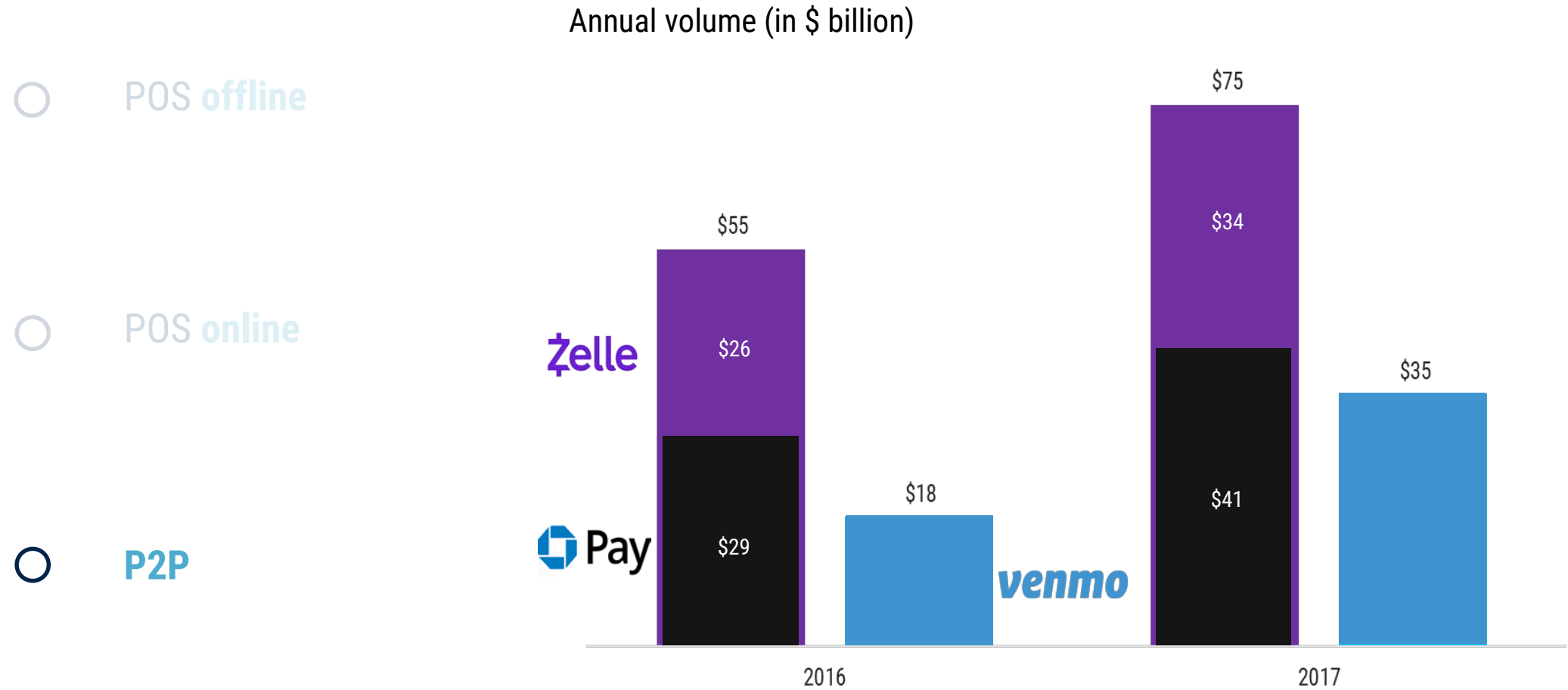
POS offline

POS online

P2P



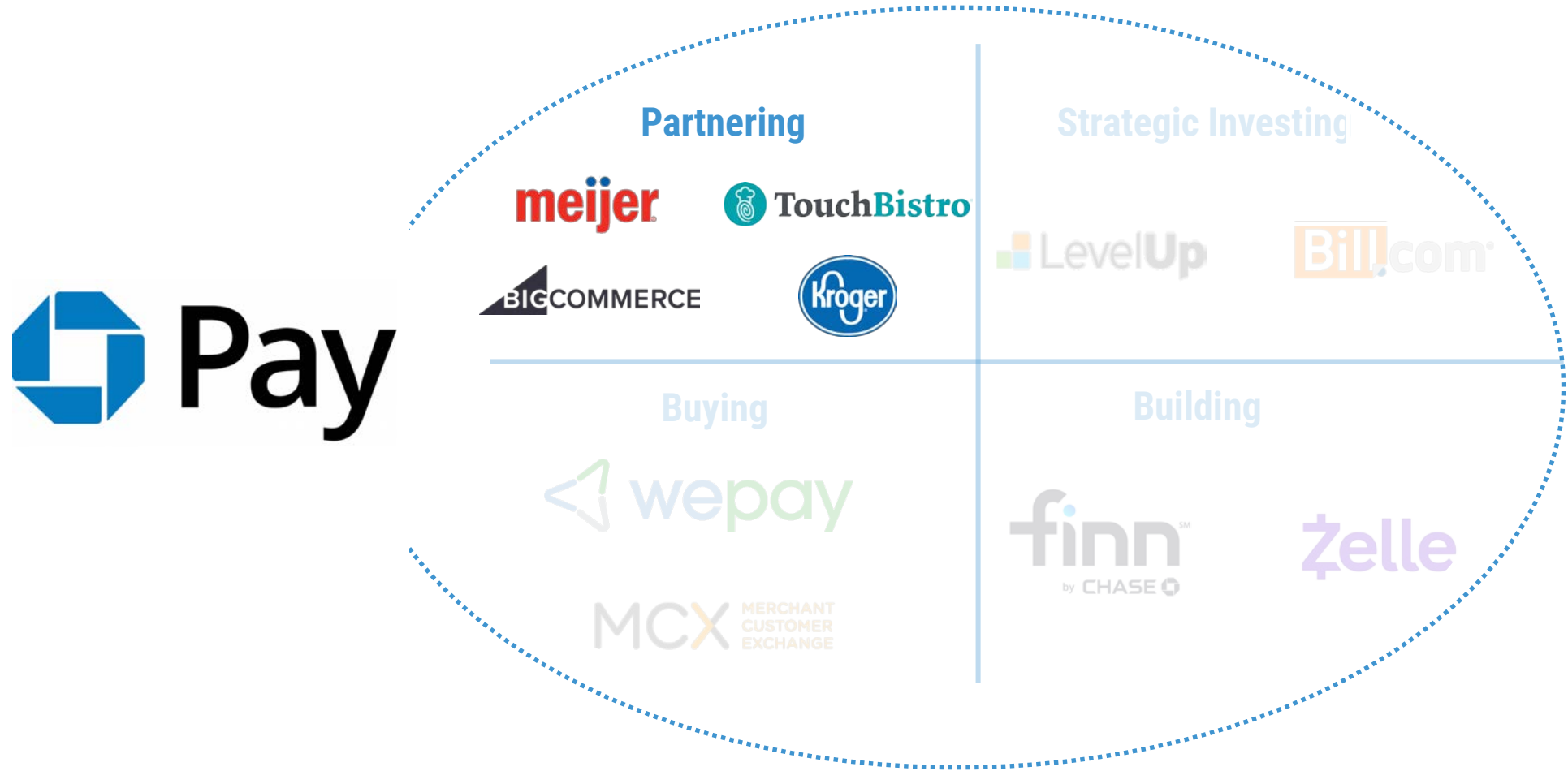
Chase QuickPay is bigger than Venmo



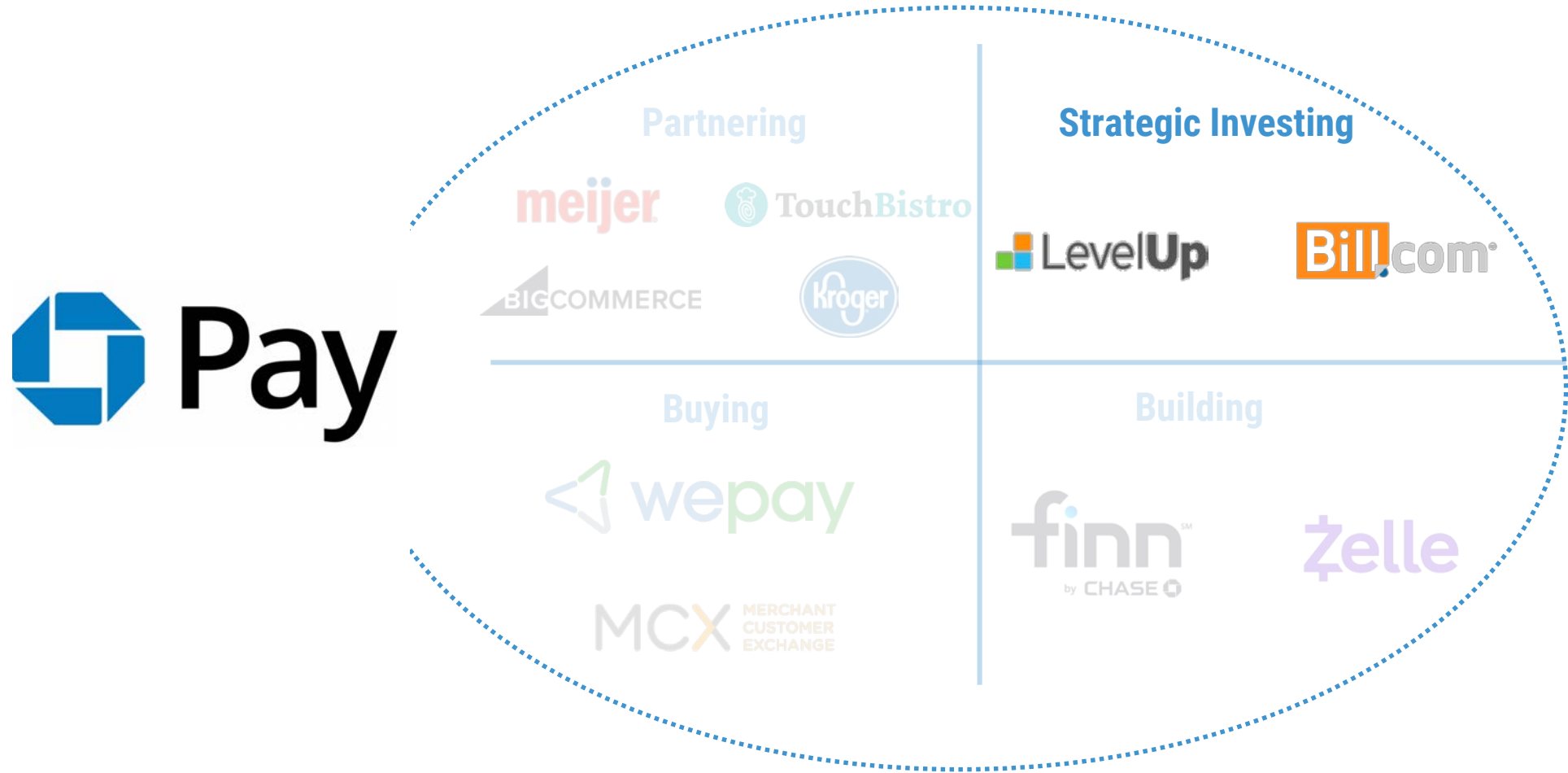
Chase Pay is expanding through all channels



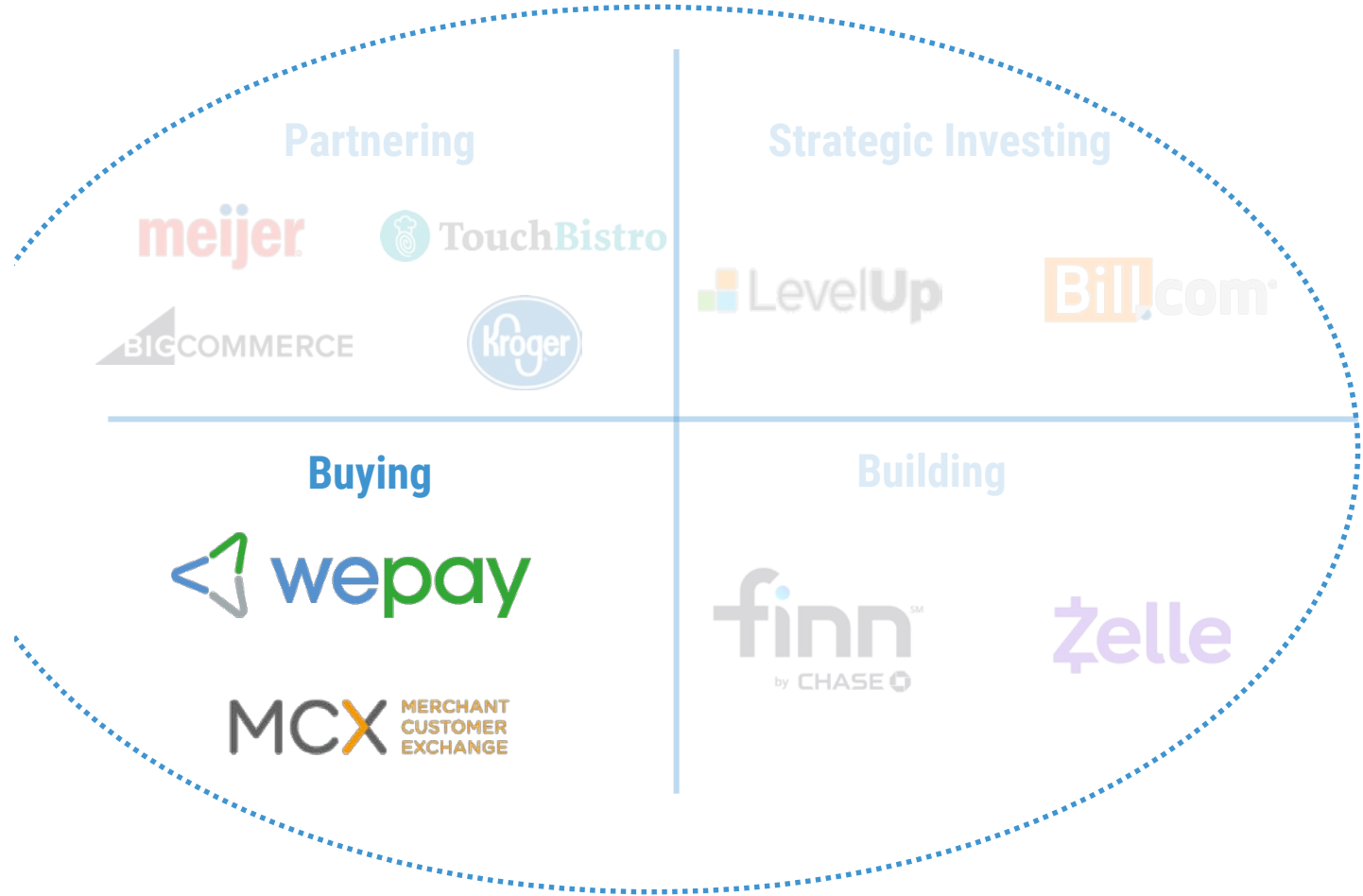
Chase Pay is partnering to grow retail presence



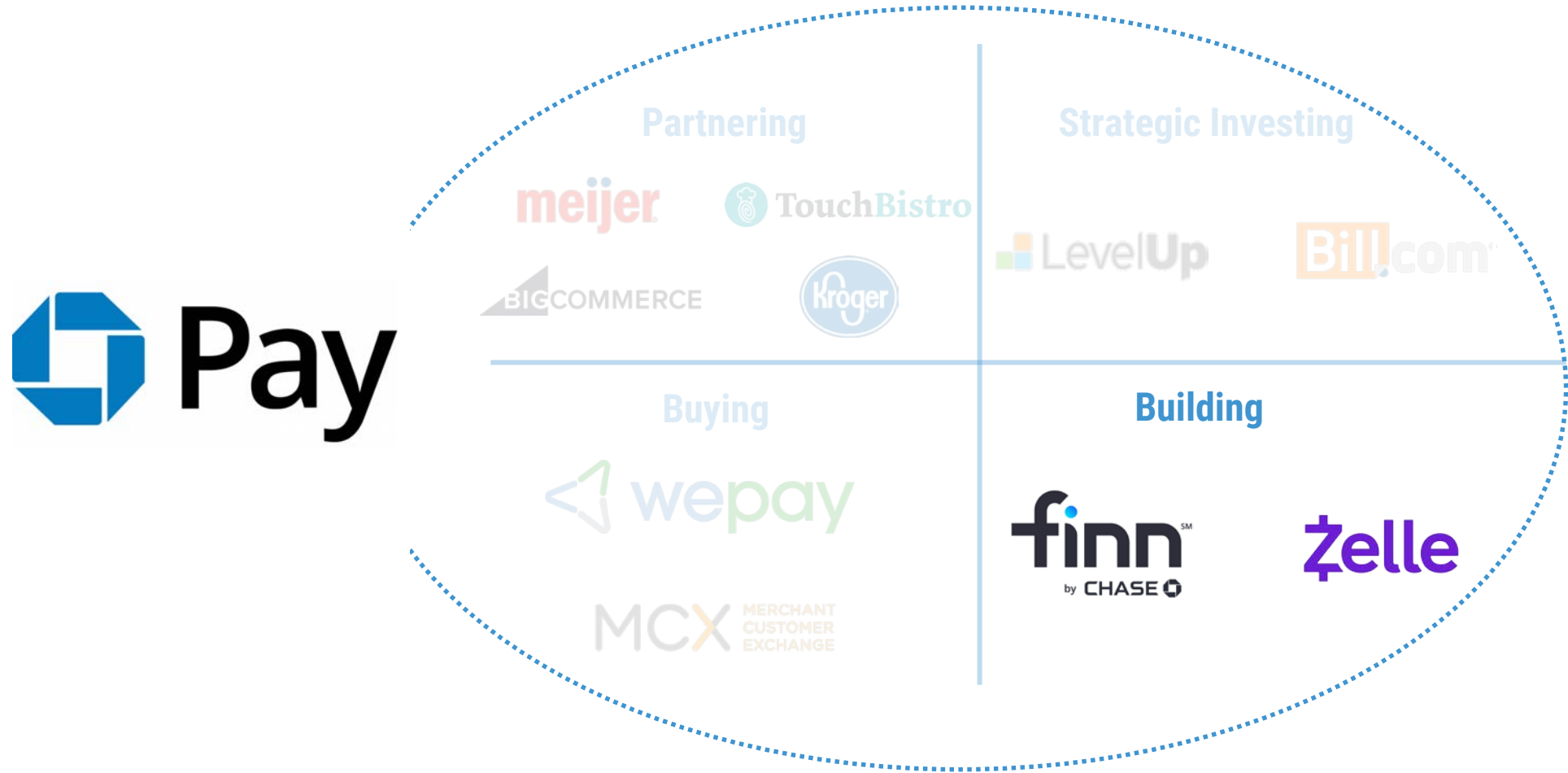
Chase Pay expands through strategic investments



Chase Pay enters integrated payments via M&A

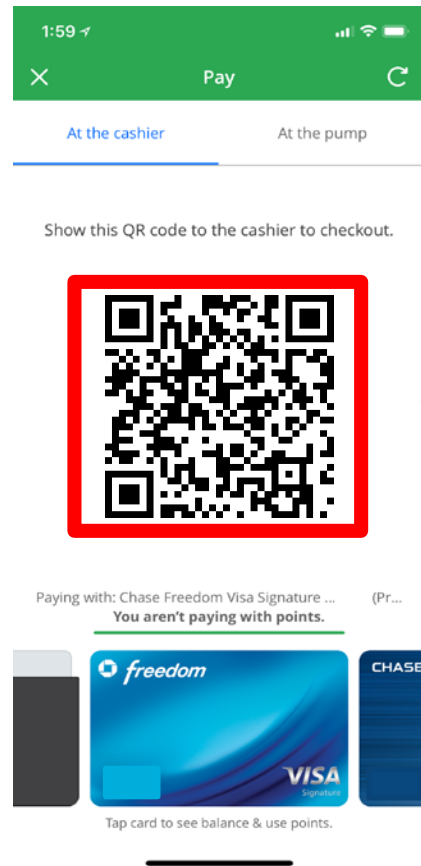


Chase Pay builds channels for future expansion



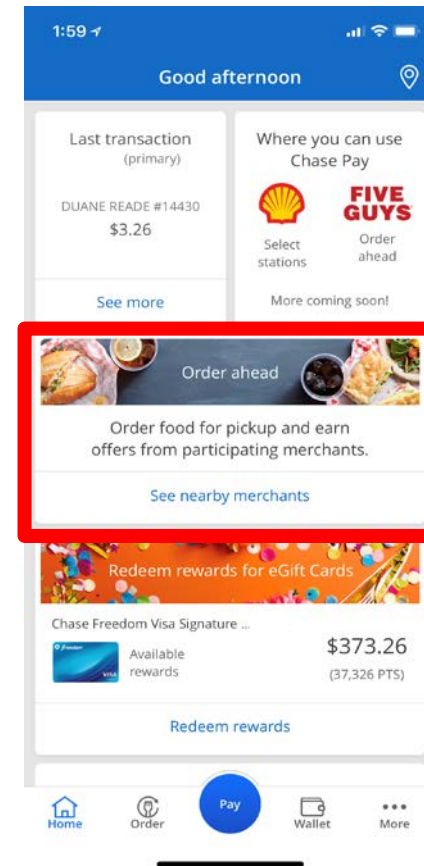
What this all looks like...

POS Payments



- Chase cards → QR codes → scanned at POS

Chase Pay Dashboard



- LevelUp order ahead integration

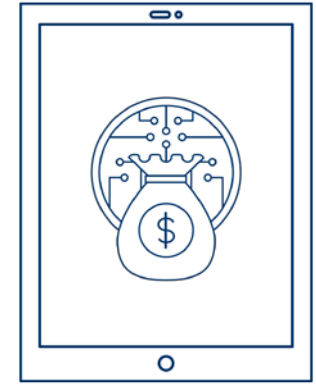
JPM's playbook, from the consumer perspective:



① Digitally **create**
account with bank



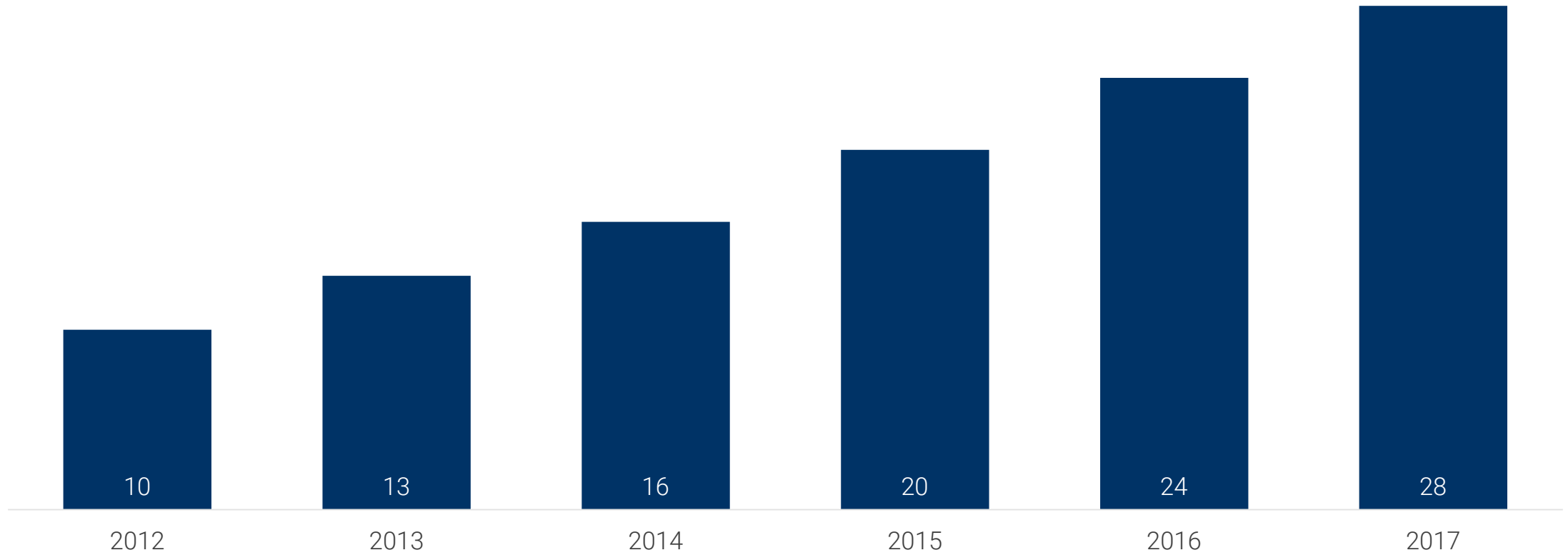
② Gain access to
payment network



③ **Bundle digital**
financial services

Chase Mobile: A strategic mobile asset with 28M+ users

Chase Mobile app users (in millions)



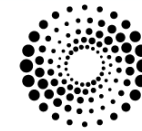
JPMorgan chooses to build vs. buy in digital wealth

JULY 13, 2017

Bloomberg

JPMorgan is said to have explored buying SigFig in 2015

DECEMBER 20, 2017



REUTERS

JPMorgan Chase powers up robo-advisor for fintech race

JPM partners with InvestCloud to build out digital wealth services

JPMORGAN
CHASE & CO.

+

investcloud[®]

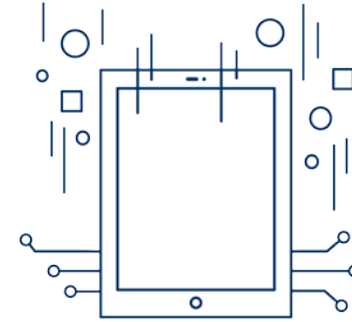
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**Data wrangling on
back-end**

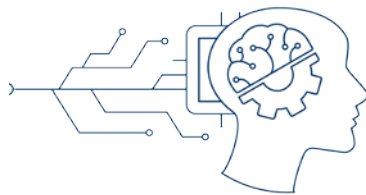
JPM is building 4 types of digital wealth solutions



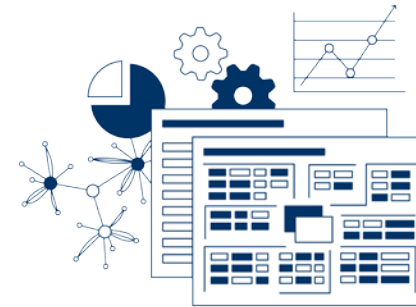
Digital advice – robo-advisor



Online and mobile investing



Ideas & insights



Digital portfolio insights

JPMorgan will take on robo-advisor startups that feature lower fees



Betterment

Morgan Stanley

J.P.Morgan

Management Fees

Management Fees

0.25%; first \$10,000 is managed free

0.25% to 0.40%, depending on plan

VS.

0.35%

0.25% to 0.50%,

“When you talk about robo and investing, well we can do that, **and give it away for free** if we want.”



Jamie Dimon
Chairman & CEO
June 2017

Talent fuels innovation: open positions

2,225

Technology jobs

117

Product manager jobs

65

Digital jobs

Talent fuels innovation: COBOL to APIs

Wealth Management - Digital Wealth Management - Product Manager - Associate - New York, NY

Req #: 180055279
Location: New York, NY, US
Job Category: Digital

Digital Product Manager - Personalization Platforms

Req #: 180039514
Location: New York, NY, US
Job Category: Digital

VP- Mobile Product Manager for Finn by Chase - New York, New York

Req #: 180056935
Location: New York, NY, US
Job Category: Digital

VP Digital Product Manager - Technical API Strategy

Req #: 180042953_1
Location: Columbus, OH, US
Job Category: Digital

VP Marketing Manager - Gamification

Req #: 180043926
Location: New York, NY, US
Job Category: Marketing/Communications

Machine Learning Engineer

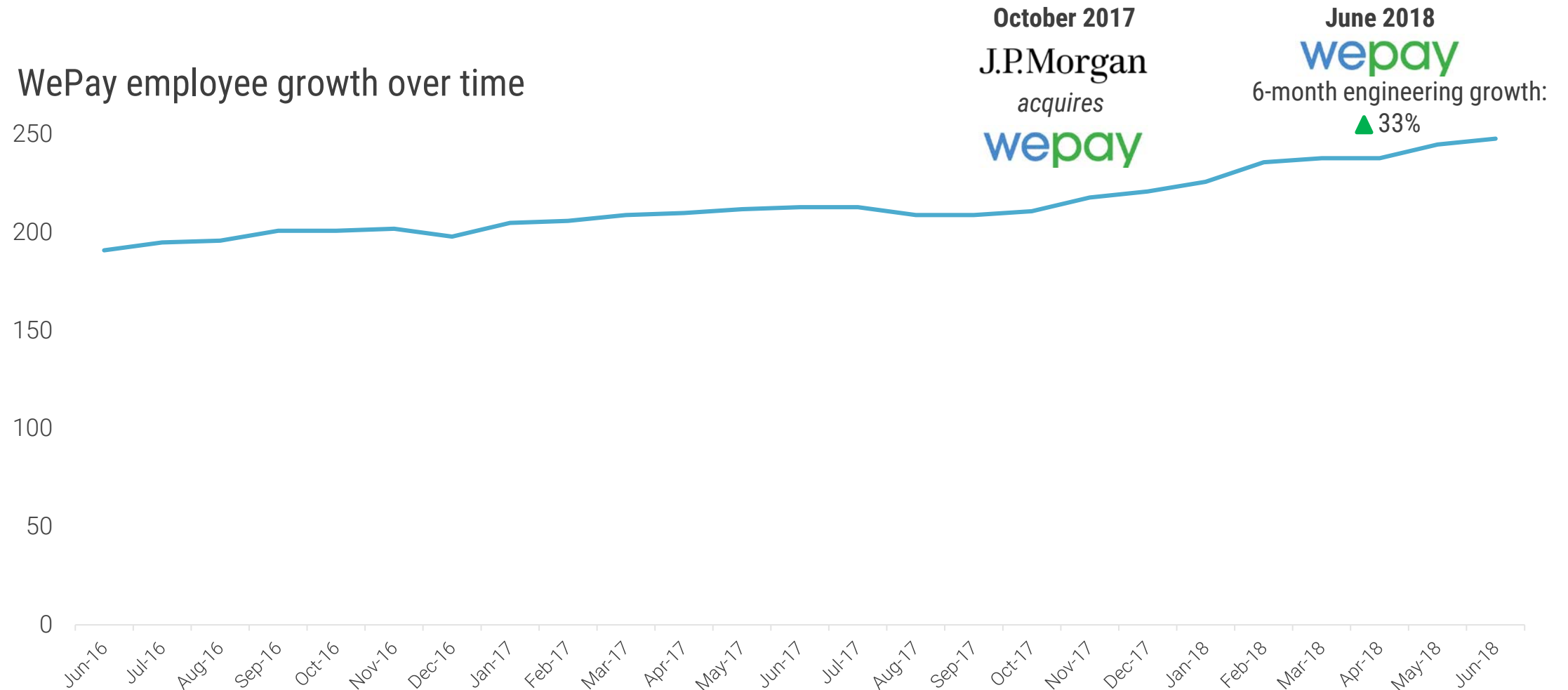
Req #: 170096894
Location: New York, NY, US
Job Category: Technology

Mobile Channel Enterprise Product Lead

Req #: 180035583
Location: San Francisco, CA, US
Job Category: Digital

Talent fuels innovation: Silicon Valley hub

WePay employee growth over time



Let's dive into the
playbooks of:

JPMORGAN CHASE & Co.

&

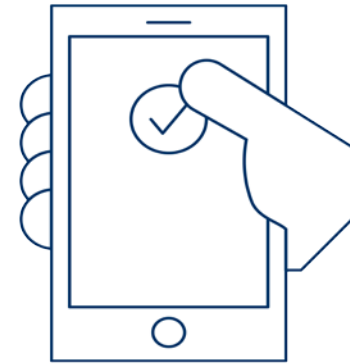
**Goldman
Sachs**



Our view of Goldman's playbook from the consumer perspective:



① Join through
Clarity Money or
Marcus website



② Receive personalized
Marcus offers

Our view of Goldman's playbook from the consumer perspective:



① Join through
Clarity Money or
Marcus website



② Receive personalized
Marcus offers

Marcus chooses to buy vs. build a consumer-facing app

JULY 6, 2017

BUSINESS INSIDER

Goldman Sachs is building a consumer iPhone app

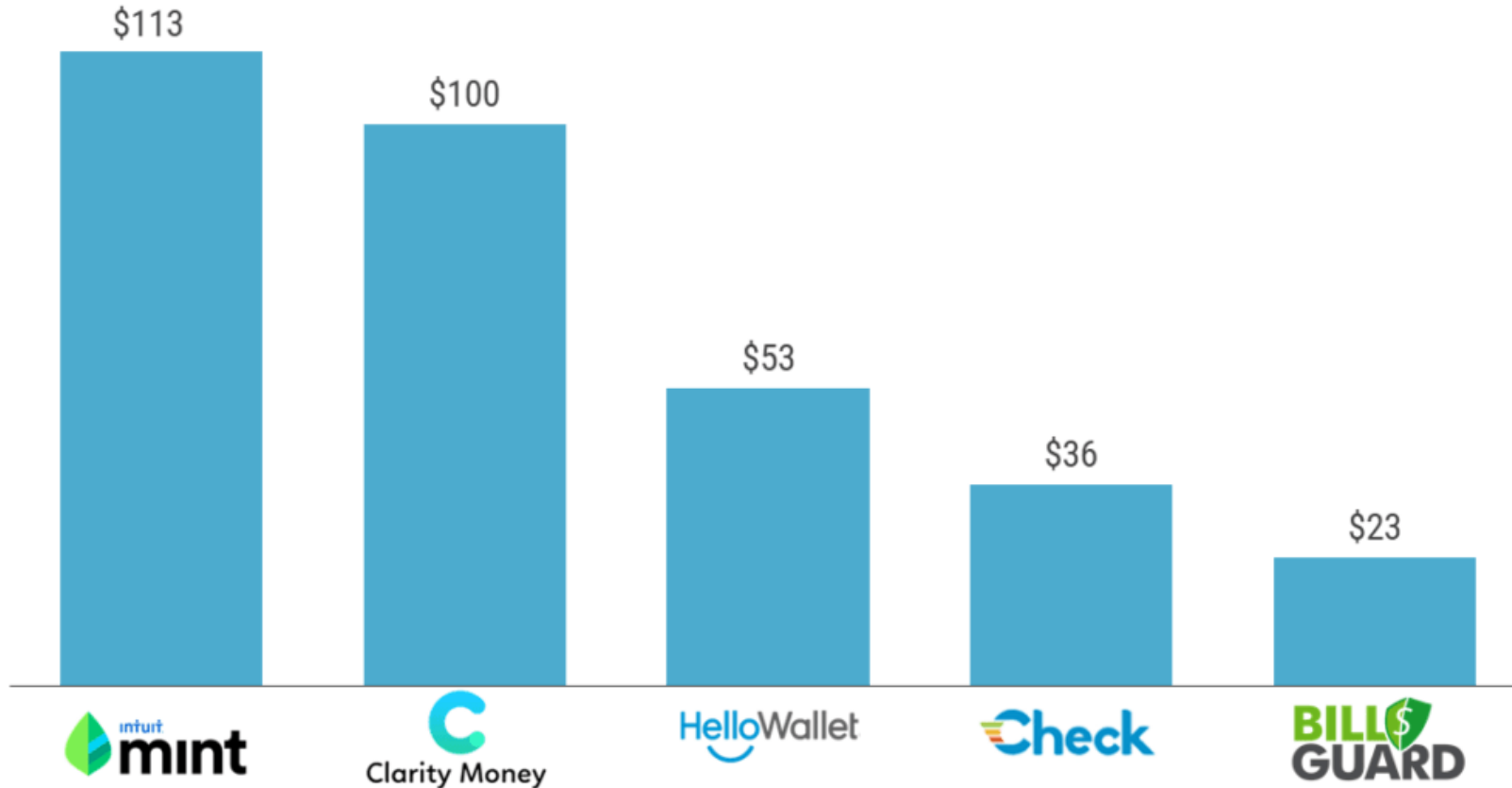
APRIL 16, 2018

BUSINESS INSIDER

Goldman Sachs bought a money-management app

Clarity Money vs. historic PFM acquisitions

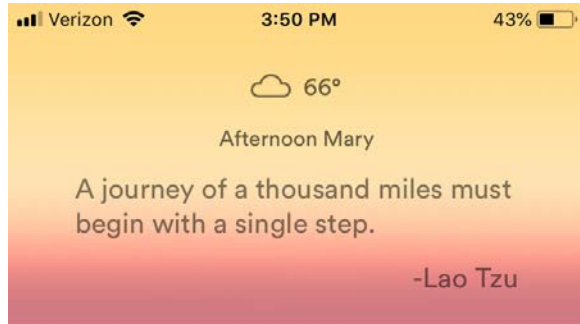
Valuation per user of acquired PFM apps



Note: acquisitions took place between Sept '09 – April '18.

 CBINSIGHTS

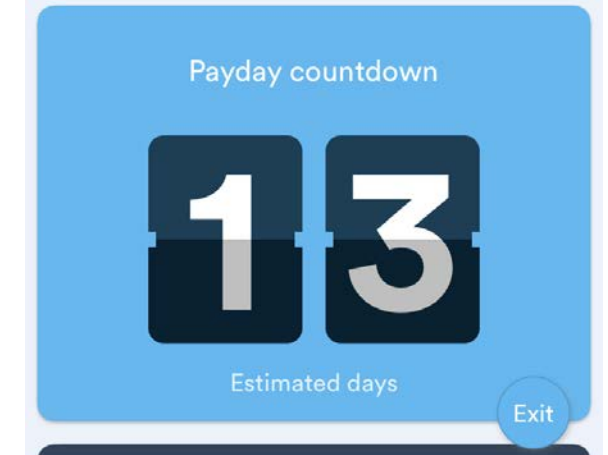
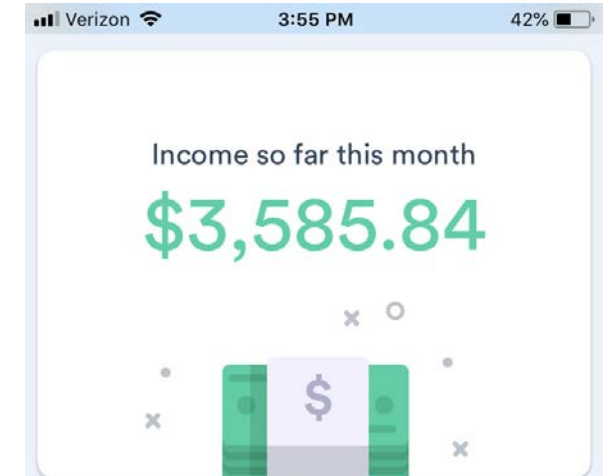
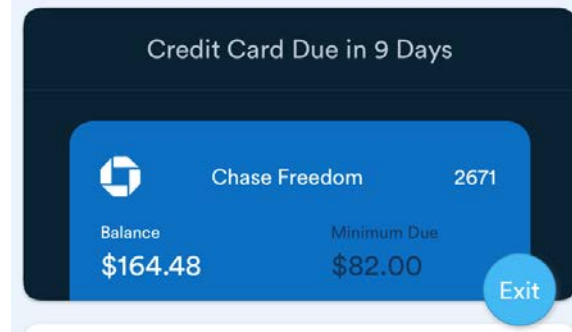
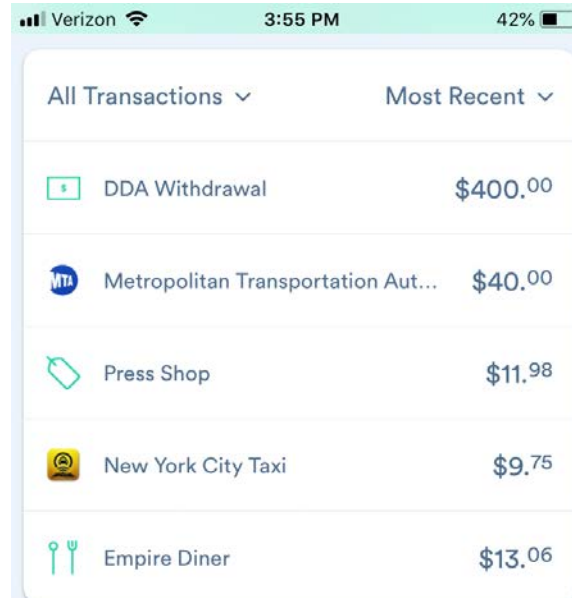
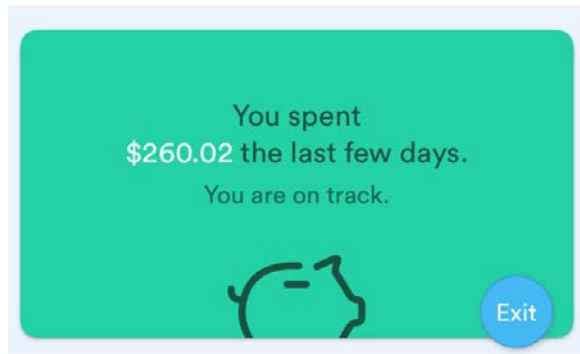
Clarity Money = financial wellness in one place



Cash **\$6,189.⁷⁰**

Credit Debt **\$2,448.⁹⁶**

Investments **\$9,588.²²**



Our view of Goldman's playbook from the consumer perspective



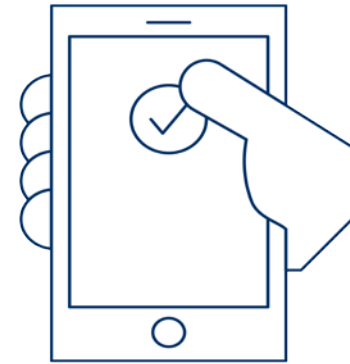
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Join through
Clarity Money or
Marcus website

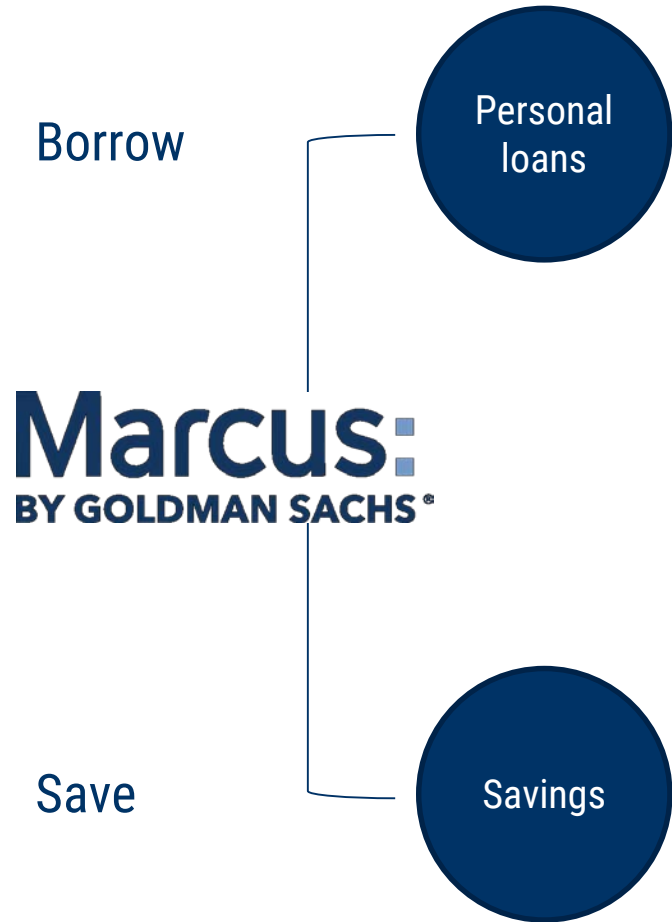


2

Receive personalized
Marcus offers



What is Marcus?



The screenshot shows the Marcus website homepage with a dark blue background. At the top left is the "Marcus: BY GOLDMAN SACHS" logo. At the top right are links for "Use loan invitation code", "Menu", and "Log in". The main headline reads "No-fee Personal Loans. High-yield Online Savings. Make money yours™". Below this, there are two columns: "Get a loan" with details "No-fee, fixed-rate loans from \$3,500 to \$40,000" and a "Find your loan" button; and "Start saving" with a "1.70%" rate and "Online Savings Account Annual Percentage Yield (APY)" and a "Start saving" button. At the bottom left is the "MEMBER FDIC" logo and the text "All loans and savings deposit products provided by Goldman Sachs Bank USA." On the right side of the page is a large illustration of a glowing lightbulb with a dollar sign inside.

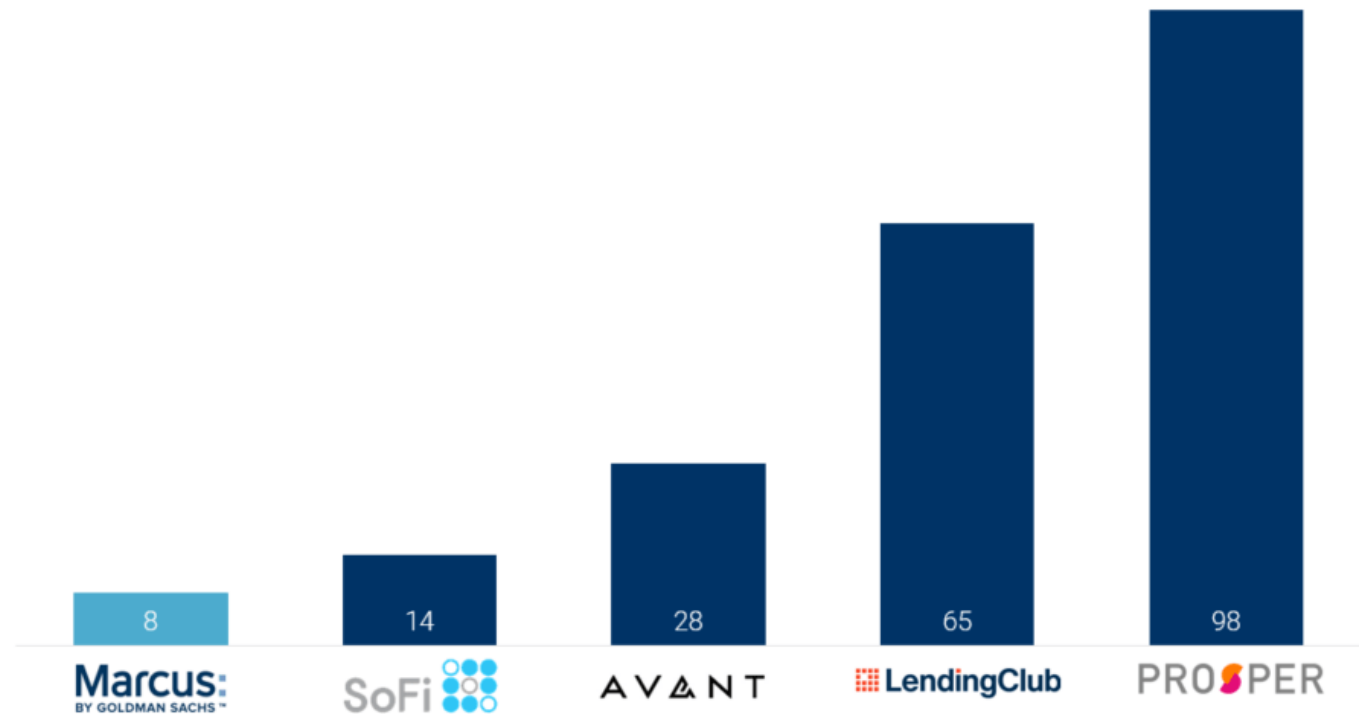
Goldman's Marcus is the fastest lender to reach \$1B issued

The online lender hit \$2.5B in originations for 350K borrowers in just 1.5 years after its launch. Marcus also acquired GE Capital Bank and now holds \$17B+ in deposits.



Marcus reached \$1B faster than earlier fintechs

Number of months to \$1B in loans originated

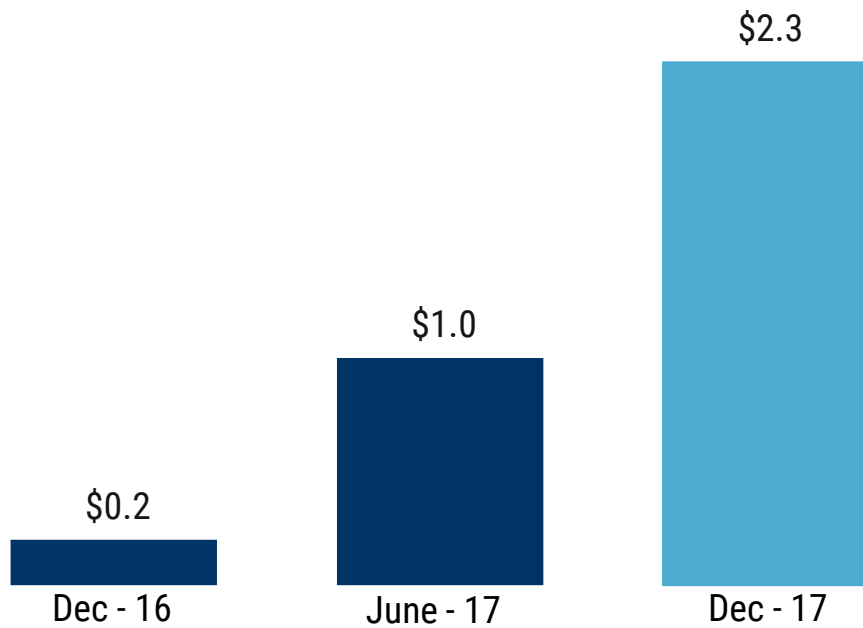


Source: Lend Academy

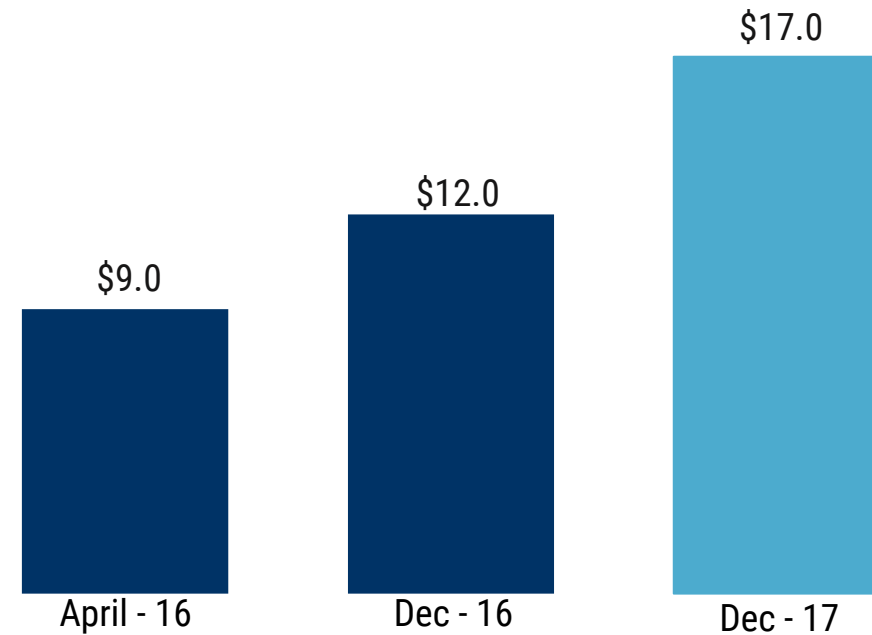
CBINSIGHTS

Marcus is growing quickly





Life-to-date Loans Originated (\$B)



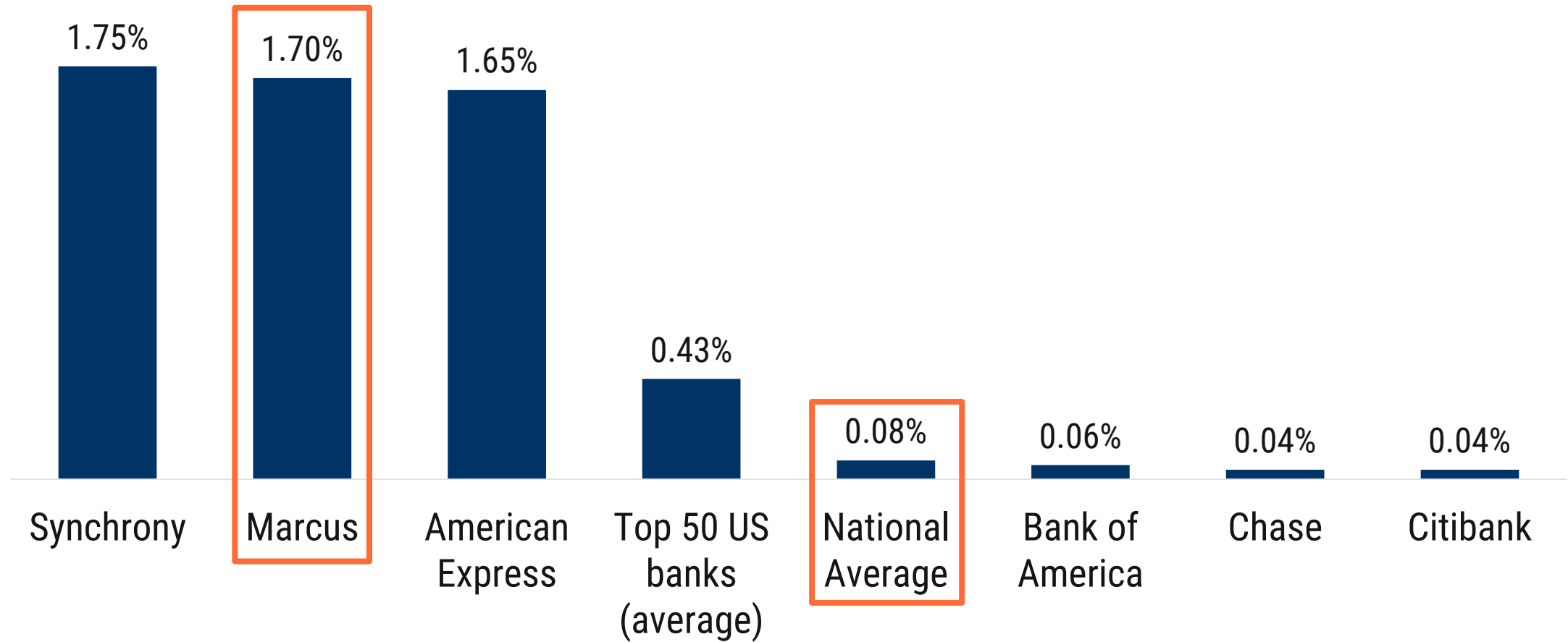
Marcus Deposits (\$B)



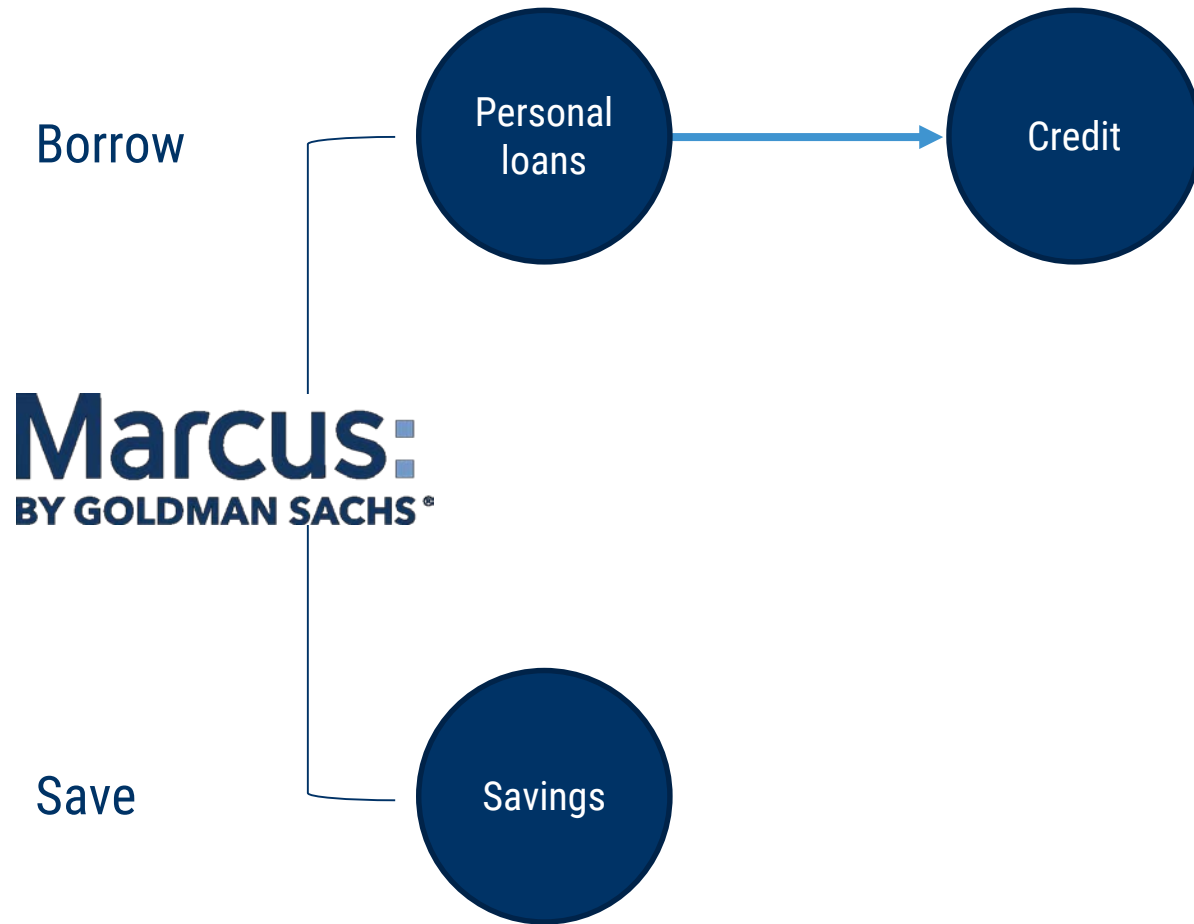
Marcus vs. alternative lenders

	Origination fee (% of loan amt)	Late Fee	APR	Term Length	Borrow Amount
 Marcus: BY GOLDMAN SACHS*	None	None	6.99% - 24.99%	36 to 72 months	\$3,500 to \$40,000
 LendingClub	1.00% - 6.00%	5.00% of unpaid payment or \$15	5.99% - 35.89%	36 or 60 months	\$1,000 to \$40,000
 PROSPER	1.00% - 5.00%	5.00% of unpaid payment or \$15	5.99% - 35.99%	36 or 60 months	\$2,000 to \$35,000
 Upgrade	1.00% - 6.00%	\$10	5.96% - 35.97%	36 or 60 months	\$1,000 to \$50,000

Marcus savings rates are 21X the national average



Marcus announced plans to introduce credit



Goldman's Marcus teams up with Apple

Now



Future



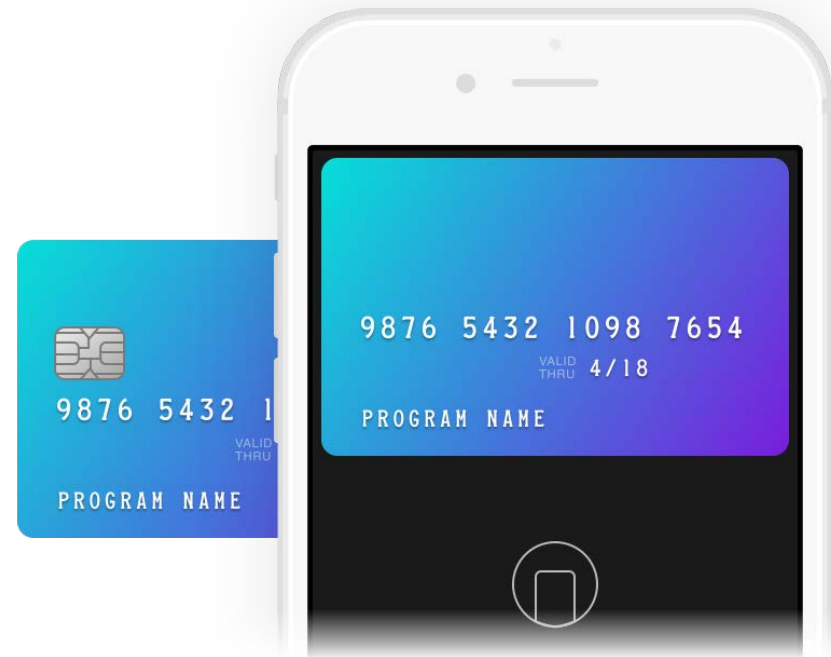
- **Confirmed:** Apple-branded Goldman credit card
- **Speculation:** In-store Marcus loans to Apple customers
- **Speculation:** Apple Pay and Clarity Money integration

No interest if paid in full within the promo period.

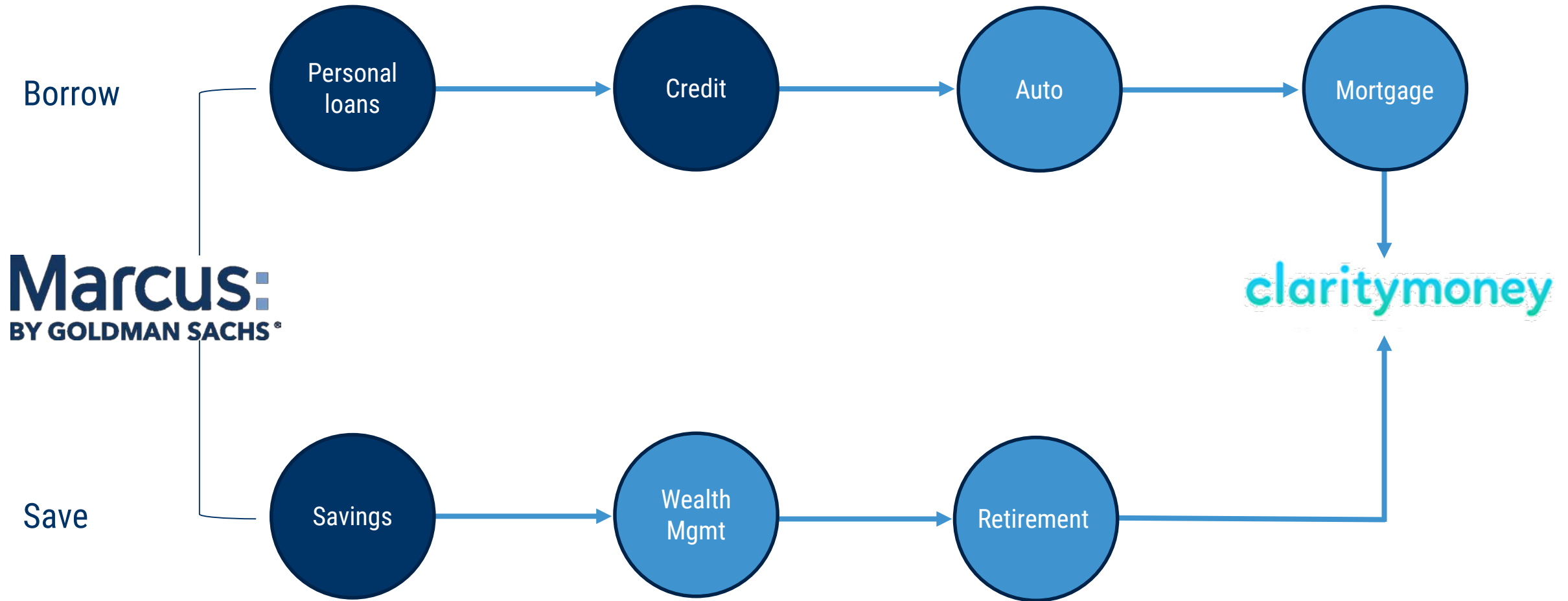
Goldman backs customized payment card company Marqeta

What could this mean for Marcus?

- Lenders can instantly transfer borrowed funds to digital credit card
- Opens the door for Marcus to offer Affirm-style POS lending



Marcus: build strategy



Goldman's mortgage investments



- Direct mortgage lender (US only)
- 100% online application process
- No commission or fees



- Mortgage matching and consulting service, based in Japan



- Free online mortgage broker
- Calculate what one can afford to borrow based on current situation, and finds best deals (even for refi's)

Goldman's small business lending investments



- Credit Karma for business credit
- Monitors scores and matches you with best financing offers



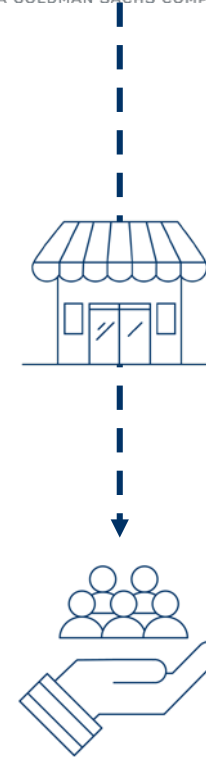
- Loans secured against salary (UK only)
- B2B2C SMB lending

Ayco is a B2B lever that Marcus can pull on

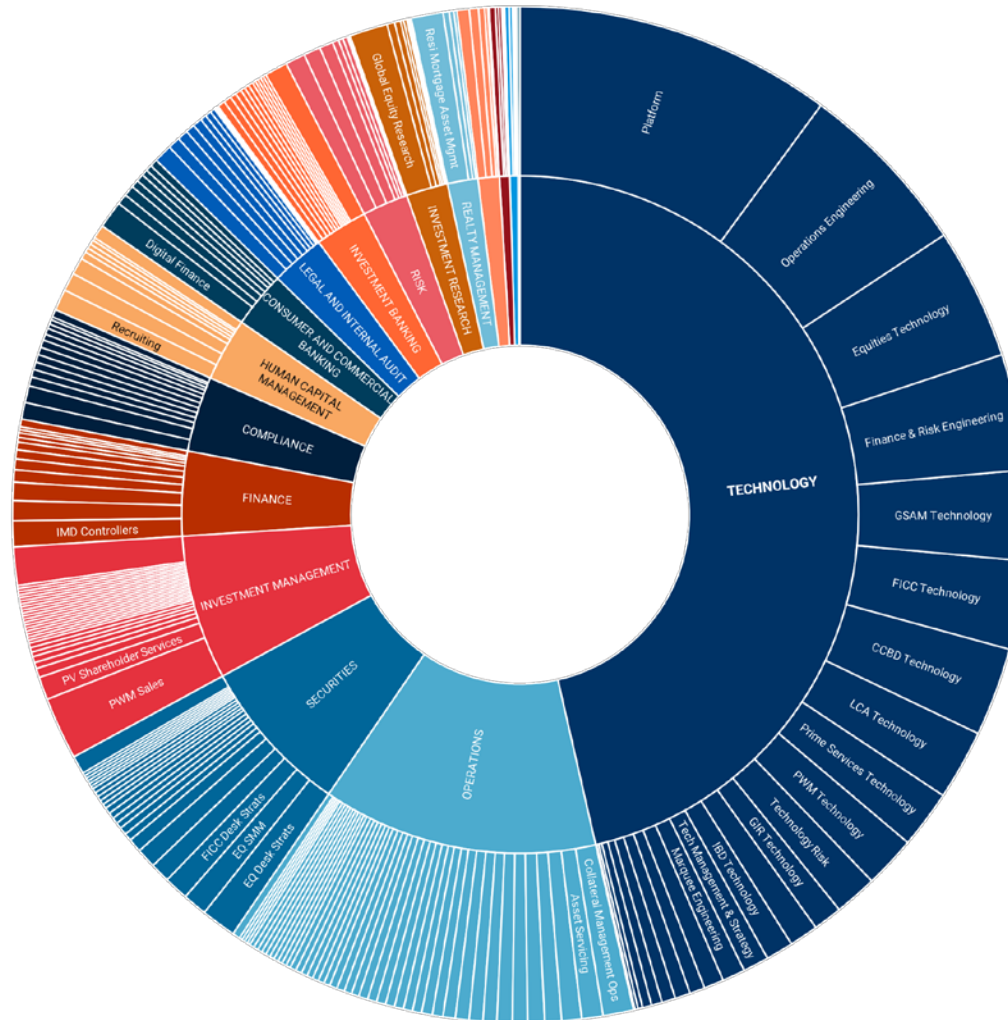
What they do?

- **Now:** Since Fall '17, Ayco has built websites for 70 companies that help rank-and-file employees understand and manage their finances
- **Goal:** Add wealth services, 401(k) offerings, and other Marcus offerings

AYCO
A GOLDMAN SACHS COMPANY



Talent fuels innovation: open positions



Talent fuels innovation: M&A

claritymoney

“Marcus also welcomed Clarity Money’s team of engineers, designers and marketers, led by its Founder and Chief Executive Officer, Adam Dell, who will join Goldman Sachs as a partner.”

 **FINAL**

“With Final, Goldman gains about a dozen engineers and product managers with experience building a consumer finance product from scratch.”


BOND STREET

“Goldman is poaching about 20 employees from online small-business lender Bond Street...a mix of engineers, product developers, and risk and marketing specialists.”

Reasons **to be skeptical**

JPMorgan continues to embrace its branches

2006



2017



Pivoting into a consumer-first brand is hard

DealBook / Business & Policy

Goldman Buys \$2.8 Billion Worth of Venezuelan Bonds, and an Uproar Begins

The Guardian

Goldman Sachs to pay \$5bn for its role in the 2008 financial crisis

The settlement holds the bank accountable for its 'serious misconduct' in falsely assuring investors that securities it sold were backed by sound mortgages

More
competitors?



Barclays is building a retail bank in the US

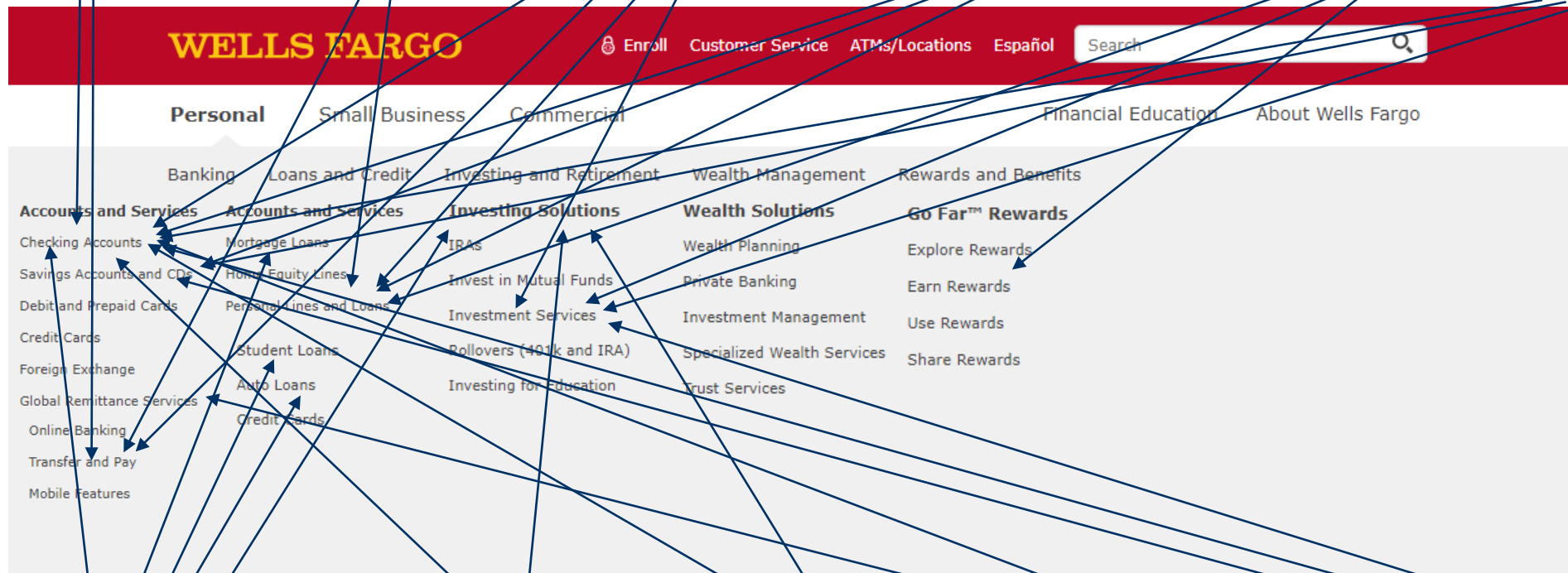
Barclays is expanding its US business beyond credit cards and savings accounts -- it's launching online personal loans next year.

Barclays' foray into online lending positions it to compete with the Lending Clubs and Marcus of the world

LOOKING AHEAD

The battle for **digital finance**

Startups also have convergence in mind



Who does JPMorgan admire?



Questions?

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