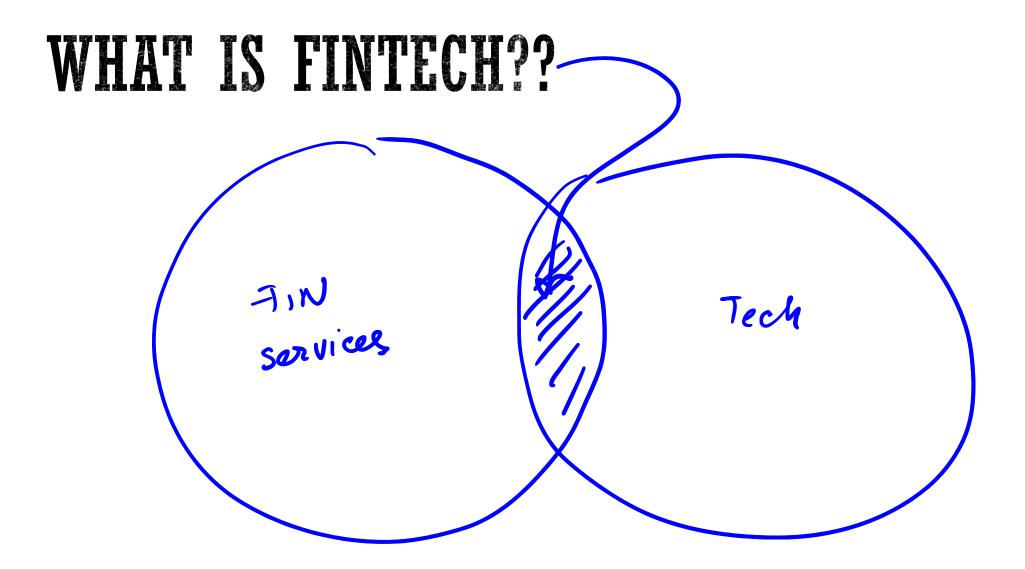
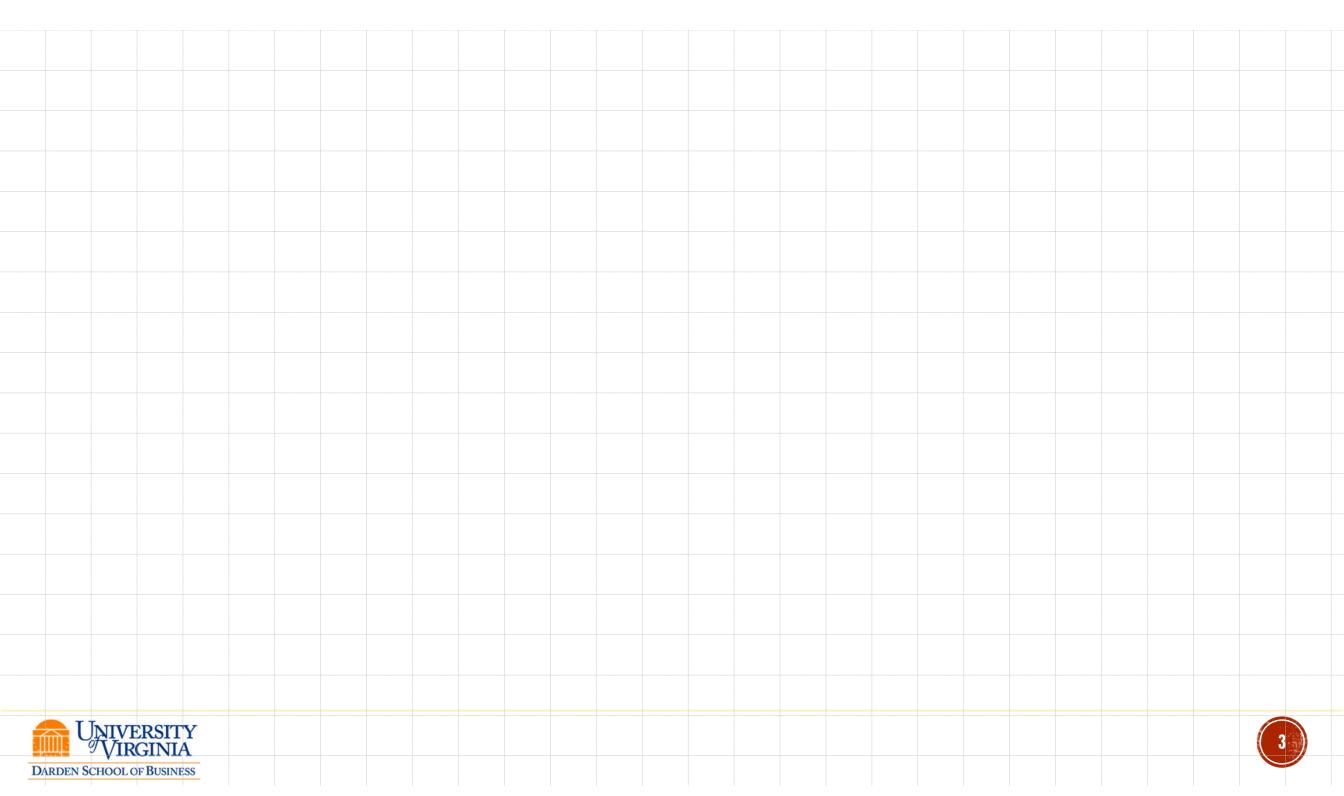


By Elena Loutskina ©









BREAKOUT ROOMS: TELL US ABOUT A FINTECH COMPANY

- Lets split into discussion rooms
- Assignment:
 - Choose a FinTech company
 - Tell us what it does
 - Tell us why you like it
- Find a slide with your team number
- <u>https://docs.google.com/presentation/d/1MxBBDgG4N0BD3</u> <u>Xh0LPVf7vIww9pEdflx3obckIwyqd0/edit?usp=sharing</u>
 - Share screen with team members
 - Discuss and fill in your slide





Breakout Room 1: Name of the company here

Business Model:

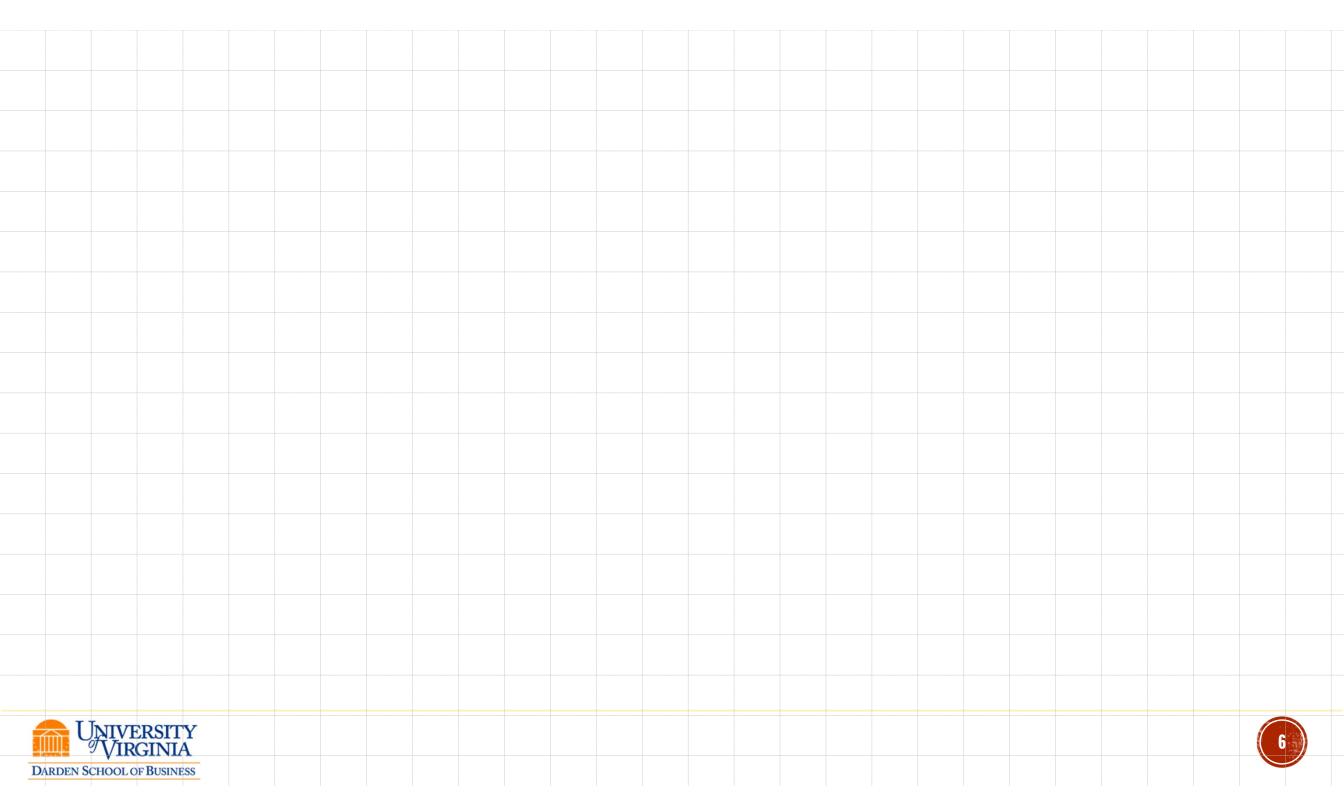
Tell us what does this company do here ...

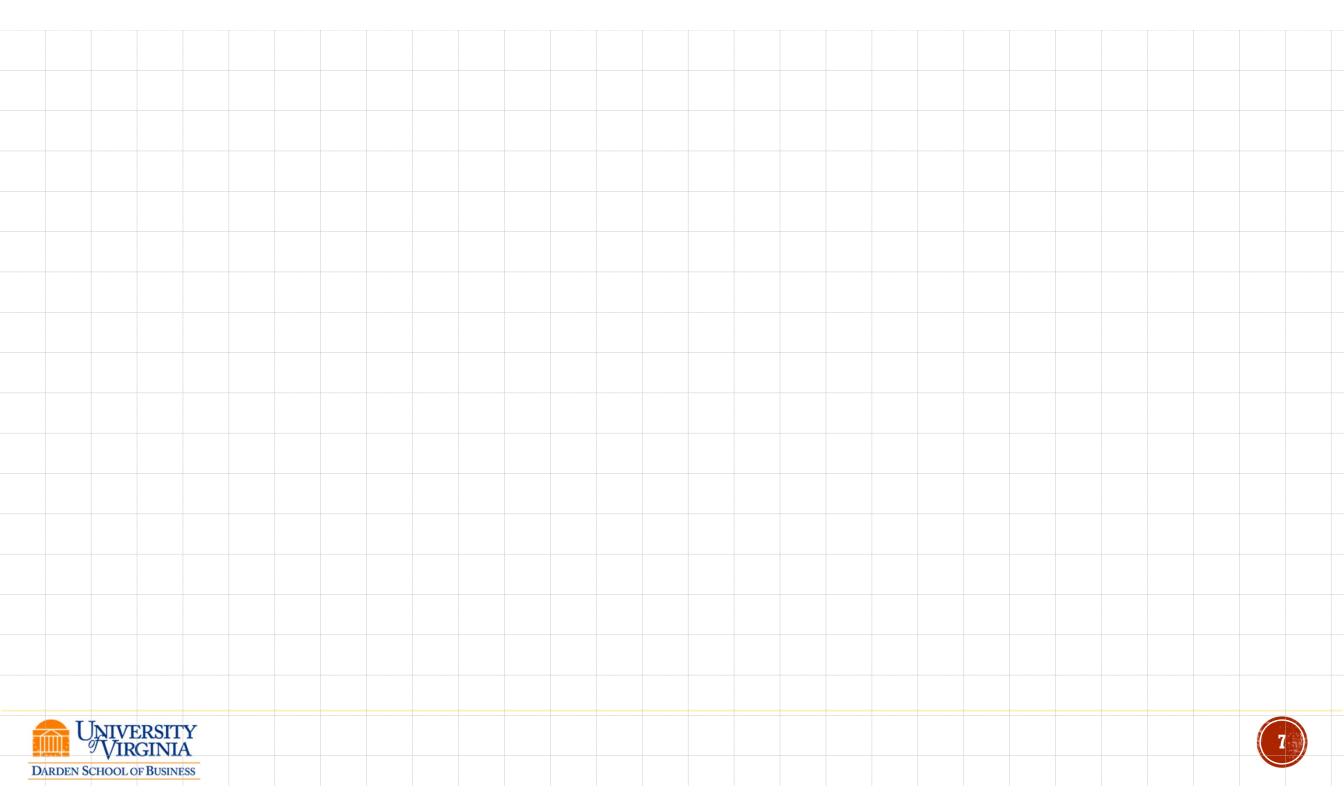
We like this company because:

Tell us why you picked this company here ...















Unbundling of a European Bank













Company Overview

VantageScore

| CEO: | Barrett Burns |
|---------------|---------------|
| Headquarters: | Stamford, CT |
| Founded: | 2006 |

- VantageScore was founded by the three national credit reporting companies (Equifax, Experian and TransUnion) to develop highly accurate credit scoring models and provide competition in the market
 - VantageScore Solutions is an independently managed company that holds the intellectual property rights to the VantageScore model
 - The models are marketed and sold independently by Equifax, Experian, and TransUnion through licensing agreements with VantageScore Solutions
- The team leverages its decades of collective analytical and extensive credit data experience to develop cutting-edge, patented, and patent-pending techniques that can analyze extensive, anonymous consumer credit data — data that more accurately reflects current economic conditions

VantageScore Ownership



Industries Served



Credit scoring advancements in data, analytics, segmentation, governance, and consumer interaction can help issuers optimize portfolio performance. As borrower behaviors change to reflect demographic and economic shifts, card issuers can leverage these innovations to improve the bottom line.



Mortgage

Bankcard

The VantageScore model can uniquely improve a mortgage lender's business while increasing responsible access to mortgage credit for consumers. By widening the window without lowering the bar in terms of credit standards, lenders can reach more qualified applicants.

Auto



In the auto industry, the VantageScore model provides significant predictive performance improvement for account management and originations across the risk distribution.

2019 Key Metrics

- Over 12 billion VantageScore credit scores used
- Over 4 billion VS credit scores used by credit card issuers
- 2.5k users, including 2.2 lenders
- 9 of 10 largest banks use VantageScore
- 20% CAGR since 2015



KODAK MOMENT

- Do you use any Kodak products today?
- Do you know that Kodak was the first company to invent a digital camera?
- Nokia
 - 2000: market cap of \$300 billion and revenues of \$28 billion
 - 2005: market cap of \$26 billion and revenues of \$2 billion
 - From 38% of the mobile phone market at the peak to <1% today





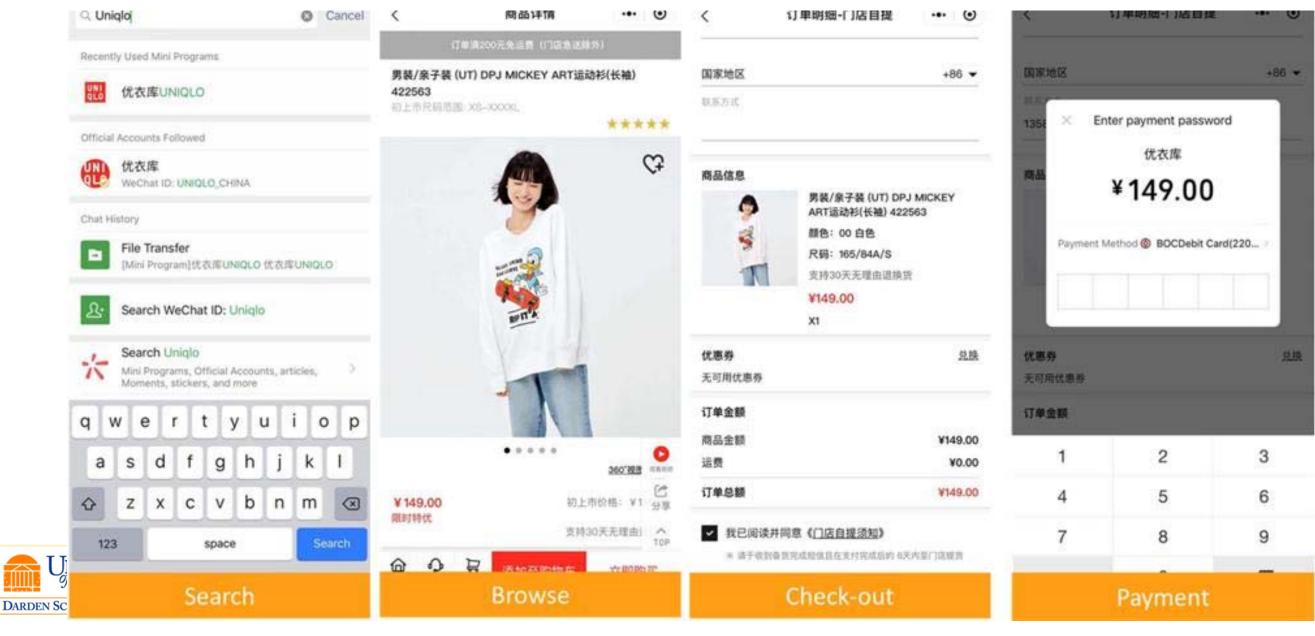
- At the height of the Apollo program an average launch would cost \$1.2 billion
 - Falcon Heavy Platform: \$6,000 to get 1 kilo (2.2 lb) into space
- Next 50-60 years
 - A lot of improvement over the original Apollo rocket design and...
 - About 1/3 reduction in costs...







WECHAT









WORLD TOP 4 COMPANIES

- Microsoft
- Apple
- Amazon
- Alphabet





WORLD TOP 10 COMPANIES

- Microsoft
 Apple
 Amazon
 Alphabet
 Facebook
 Facebook
 Alibaba
 Tencent <u>Wecket</u>
 Visa
- Berkshire Hathaway
 JPMorgan Chase





A BRAVE NEW DIGITAL WORLD

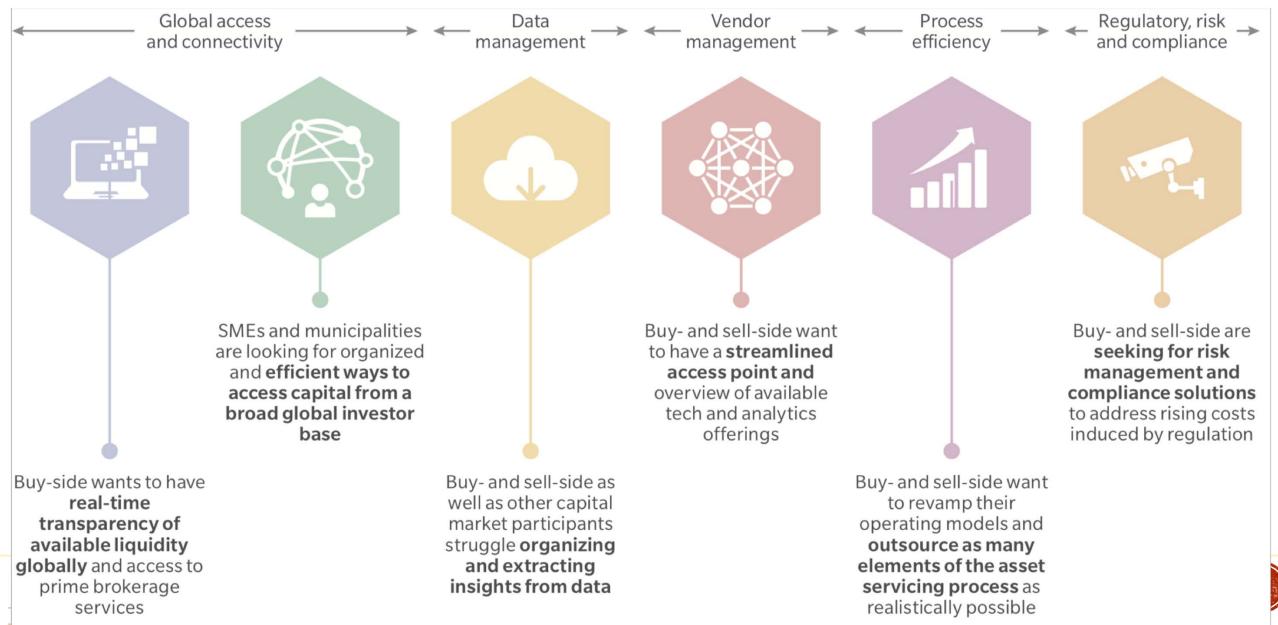
- Marginal cost of an additional digital transaction tends to zero
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- Economies of scale
- Attention is the name of the game
- Value creation and value chains get upended

Enabled by: cloud computing, mobile computing, edge computing, AI/ML, APIs, open banking regulation/legislation, faster payment rails, blockchain/crypto





CORE PROBLEMS FINTECH CAN TACKLE



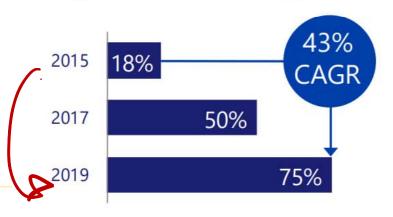
Fintechs Serve a Large Addressable Market with Very High Growth Rates

Internet Enabled Consumers¹



Fintech Adoption²

% of internet enabled consumers using at least 1 fintech app



| Users of Select Fintechs ³ Fintech users growing 50%+ | | | | |
|---|-----|-----|----------|--|
| (Millions) | | Yo | Y Growth | |
| Credit Karma | | 100 | ~18% | |
| Venmo | | 40 | N/A | |
| Coinbase | 30 | | ~36% | |
| Mint | 20 | | ~26% | |
| Square Cash | 15 | | ~100% | |
| NuBank | 15 | | ~150% | |
| Toss | 13 | | N/A | |
| Clearscore | 10 | | N/A | |
| Etoro | 10 | | N/A | |
| Revolut | 8 | | ~167% | |
| SoFi | 7.5 | | N/A | |
| Circle | 7 | | N/A | |
| Robinhood | 6 | | ~100% | |
| Transferwise | 6 | | ~50% | |
| Rainist | 5 | | N/A | |
| MoneyLion | 5 | | ~80% | |
| Chime | 5 | | N/A | |
| Acorns | 4.5 | | N/A | |
| Monzo | 3.6 | | ~137% | |
| N26 | 3.5 | | ~96% | |
| Dave | 3.5 | | N/A | |
| Stash | 1.7 | | ~100% | |

Fintech Funding⁴ VC-backed

\$120 Billion

(7,688 Deals) in the last 5 years

59 Unicorns

> Valued over \$200 billion





Total investment activity (VC, PE and M&A) in fintech in the Americas 2014–Q2'19





WHAT SERVICES/REVENUE STREAMS AT YOUR **BANK WILL BE AFFECTED?**

Fees Wire fees Exchange fees 7 Open banking Duline banking Lending







WHAT IS THE VALUE CHAIN IN CONSUMER LENDING? origination **Create** a Risk **Product:** Marketing and **Post Origination** Turnarounds Assessment and Monitoring Mortgage, Sales and Workouts Pricing Credit card, etc.





Investor(s)

- Obtain borrowers' information both validated and not.
- Obtain interest rate.
- Make lending decision
- Transfer funds

- Validate: borrowers' SSN, drivers license, bank account info, credit score.
- Collect additional borrowers information.

WHAT IS **P**2P MARKETPLACE?

Loan

MPI

(Fees/commissions)

- Provide/compute credit rating for each borrower
- Assign interest rate to each rating
- Administer loan payments

To apply for P2P loan

797

Borrower(s)

- Provide: SSN, drivers license, bank account.
 credit score.
- Provide additional data requested by platform.
- Agree to interest rate assigned by platform.







- Banks act as an intermediary between savers and borrowers. They pay interest on deposits and lend money to consumers and businesses
- They generate income by taking risk onto their balance sheets and managing spreads between the interest banks charge on loans and that paid on savings
- This risk-taking requires them to hold capital to absorb potential losses
- Depositors have limited control or visibility over how their money is used
- Banks engage in maturity transformation as the deposits are typically shorter term than the loans, creating a need for a liquidity buffer.

• Marketplace lenders directly match lenders with borrowers via online platforms

Marketplace lending (MPL)

Loan

MPL

(Fees/commissions)

dan repayments

- They do not lend themselves, so they do not earn interest and do not need to hold capital to absorb any losses
- They make money from fees and commissions from borrowers and lenders
- MPLs use traditional, bank-like, credit-scoring approaches, and publicise these credit risk scores
- MPLs offer transparency and control to lenders, such as through disclosure on recipients of funds lent out
- Generally, by design, there is no maturity transformation involved.





Borrower(s)



MARKETPLACE LENDERS

MPL P2P INDUSTRY: ADVANTAGES

a fundamentally lower-cost operating model

an ability to use public data to (safely) overcome incumbents' data advantage in scoring risk, potentially going on to achieve better risk-pricing by taking a more agile 'Big Data'-based approach

a superior customer (borrower) experience, driven by speed and convenience

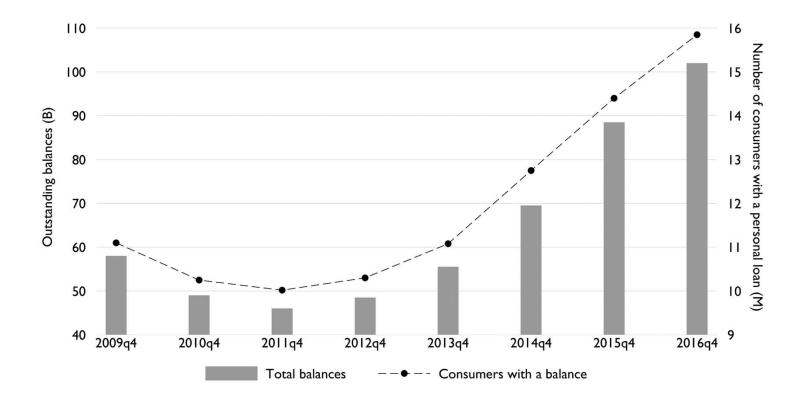


an ability to better absorb and diversify risk by matching the appetite of borrowers and investors for both risk and duration.





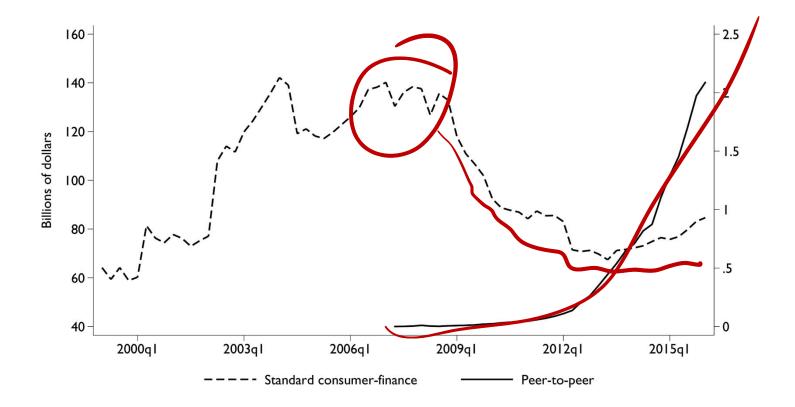
P2P INDUSTRY THE CASE OF U.S.





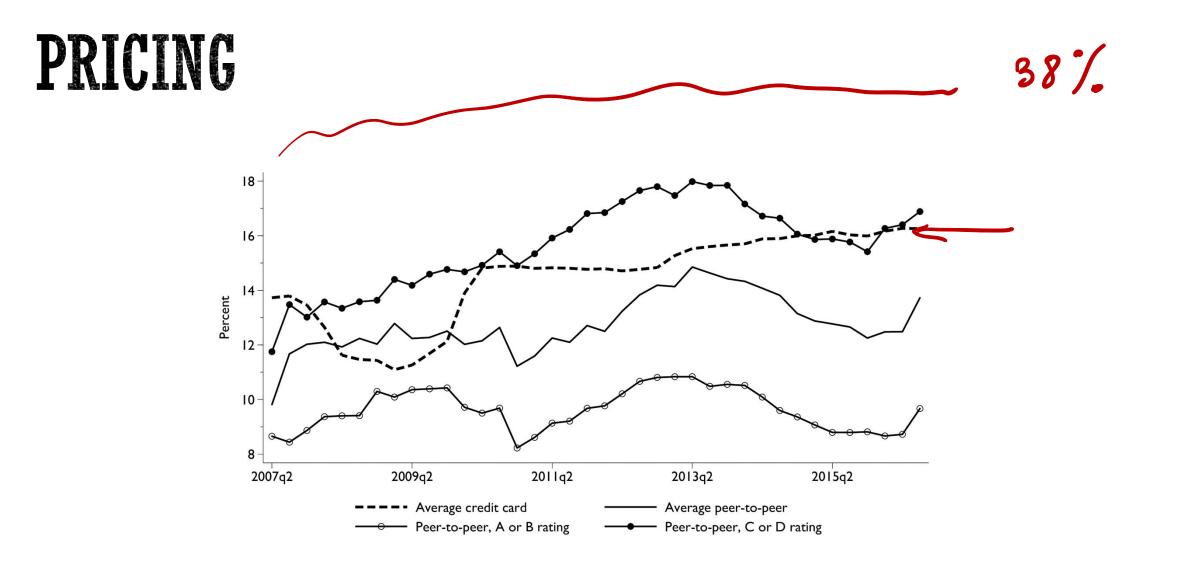


P2P INDUSTRY













IS THIS A VIABLE MODEL? Denied ly lie bank? Surderpanked Hedge Funds





WHAT FUELS THIS GROWTH?

- Institutional investor participation
 - Hedge funds
 - Private equity funds
 - 2016: Estimated to be <u>at least 80%</u> of the funded loans
- Technology development
 - "Robo-advisors" in P2P space
 - From small portfolio firms (>\$20,000) to large institutional lenders (>\$5,000,000)
 - Lending Club and Prosper have their own robo-advisory platforms
- Securitization
 - In 2013 NYC based Eaglewood Capital closed \$53 million deal
 - 2016, more than 60 P2P loan securitization deals were registered.
 - In Q2 of 2017, the deal volume reached \$3 billion or 80% year-to-year growth.

• Weak regulatory oversight





P2P INDUSTRY MARKETING PITCH

- If you already have excessive debt, P2P is great for you:
 - Refinance expensive credit cards with cheaper P2P loans
 - Credit Score improves
- If you do not have access to credit
 - P2P is the solution to the under-banked
- Great for economy
 - Cheaper and abundant credit
 - No regulatory burden: lower costs
 - P2P lenders use private capital





PR05PER

Real customer stories



I'll be able to pay off my credit card debt in 3 years at **half the interest rate I was paying before.** Nik #MyProsperStory Entry

It was tough getting my finances back together and I was relying on my credit card. Prosper let me consolidate and **now I only have one payment.**



Shanita #MyProsperStory Entry

Prosper helped me pay for essential things we needed, as well as pay down credit card debt.





LendingClub

Join over 1.5 million customers we've helped

~80% of Lending Club loans based on borrower reports



Pay down credit cards

300,000+ customers have paid down credit cards.

Learn more



Consolidate your debt

800,000+ customers have consolidated their debt.

Learn more



Improve your home

100,000+ customers have improved their homes.

Learn more



Cover major expenses

57,000+ customers have paid major expenses.

Learn more

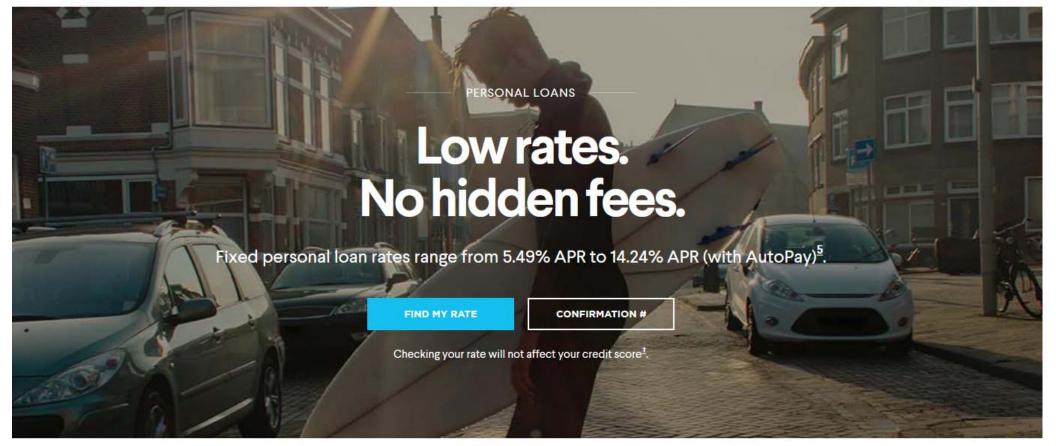




PRODUCTS BENEFITS RESOURCES AT WORK

COMPANY





PAY OFF CREDIT CARDS OR INVEST IN A MAJOR PURCHASE

Are you paying more than 10% interest on your credit cards? SoFi Personal Loans could help you save thousands. With low personal loan interest rates and a fixed monthly payment, you can get loans to pay off credit cards, pay off high interest debt, or make a major purchase. It only takes minutes to apply.





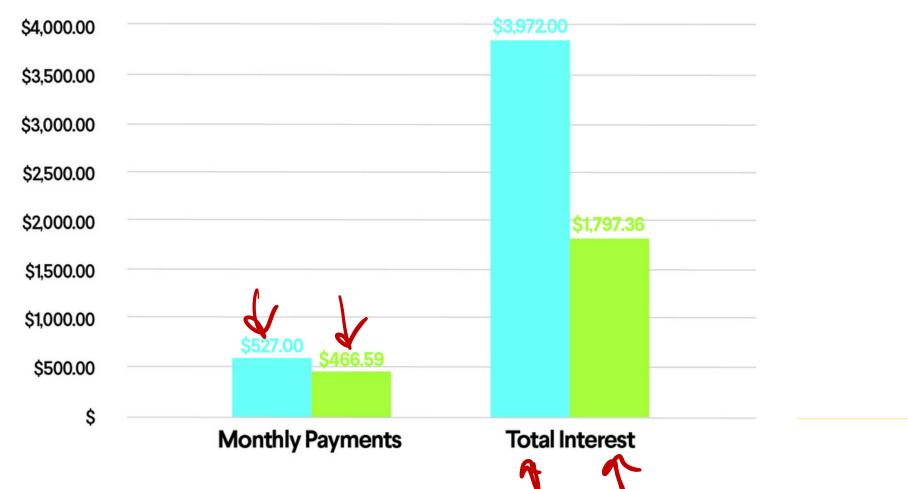


JNIVERSITY VIRGINIA

DARDEN SCHOOL OF BUSINESS

Let's say you have a \$15,000 balance on a fixed-rate credit card with a 16% APR, and your goal is to pay it off within three years. Your monthly payment would be about \$527, while your total interest cost would be about \$3,972—and that's if you *don't continue to charge new credit card debt*.

But if you qualify for a 7.5% APR personal loan with a three-year term, and use it to refinance your credit card debt, your monthly payment would go down by \$60 *and* you'd save over \$2,000 on total interest over the life of the loan.



🛛 Credit Card (16%) 🛛 📮 Personal Loan (7.5%)

Marcus: BY GOLDMAN SACHS

Marcus vs. credit cards: Calculate your savings.

You could save money and pay off credit card balances faster with a loan from Marcus. This calculation assumes (1) equal monthly payment amounts for the credit card and Marcus loan, (2) a FICO score of 700 to 740, (3) a 16.99% average credit card APR with 54 on-time monthly payments and (4) a 12.99% average Marcus APR with 48 on-time monthly payments. For a \$14,000 loan, that means an estimated total cost of \$20,114.21 for the credit card vs. \$18,024.74 for Marcus. Actual savings will vary based on your actual APRs and credit terms. Learn more

Enter your credit card debt

\$14,000

You could save \$2,089.54 with a 48-month Ioan





Do consumers really refinance their (credit card) debt using P2P loans?

 San Bernardino shooter Syed Farook received a \$28,500 loan through online lender <u>Prosper Marketplace</u> Inc. just two weeks before he and his wife opened fire at a holiday party, killing 14 people and wounding 21 others.





Dear Igor Tarassenko,

Getting the money you need through Prosper couldn't be easier. You're already pre-approved for a personal loan, and it's easy, fast and free to apply. Here's how it works:

1. Choose the amount you need - from \$2,000 up to \$35,000

Your monthly payment stays the same³ with **no surprises or hidden fees**. Your loan will be fully paid at the end of 3 or 5 years,² and you'll never be penalized for paying it off early.

2. Check your rate before you decide - it won't affect your credit score

Simply visit **SaveWithProsper.com** and enter your Confirmation Number to request your cash. Your low FIXED rate won't change over the life of your loan. That could **save you thousands in interest** compared with high-rate credit cards.

3. Get your money in as few as 3 days

You could have your cash within days, **deposited directly into your account**. There's no need to go to a bank and wait weeks for a decision — our investors are ready to help you meet your financial goals when you are.

That's it! You can use the money to pay off credit cards, make home improvements, or even start a business. Why wait? Request your money today — you'll be glad you did.

Sincerely,

Chris Lawson Vice President, Borrower Services

You're pre-approved

- Save thousands in interest
- Lock in a low FIXED rate



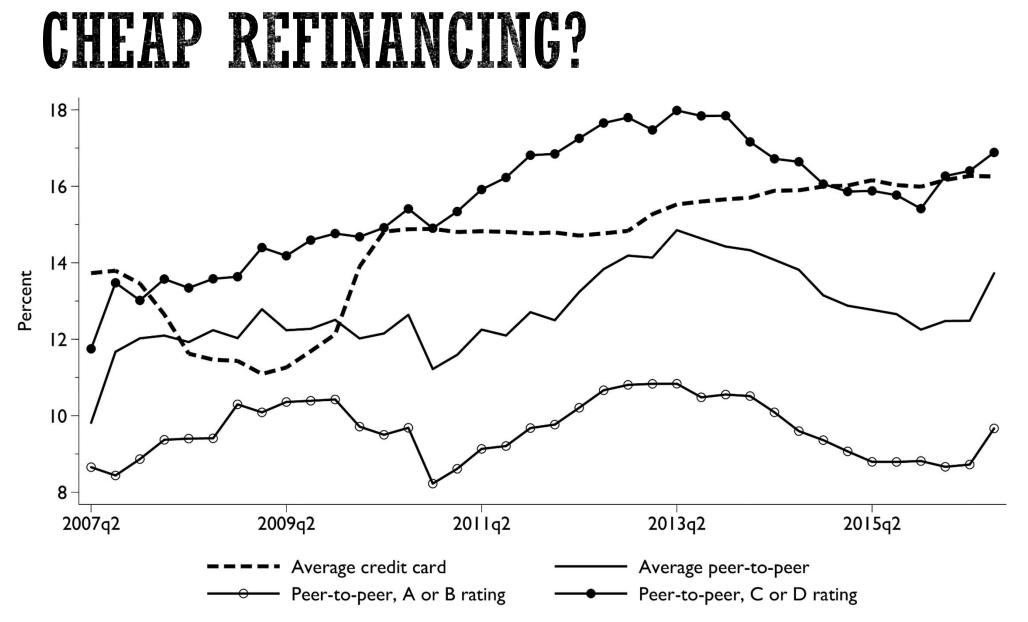
REFINANCING

CHEAP REFINANCING?

 APR by Prosper Rating Range from 5.99% (AA) to 36.0% (HR) for first-time borrowers.... Loan origination fees vary from 1%-5% of loan amount.... Between April1, 2016 and March 31, 207 the average three-year loan rate presented to other preapproved applicants was 15.2% (18.7% APR).

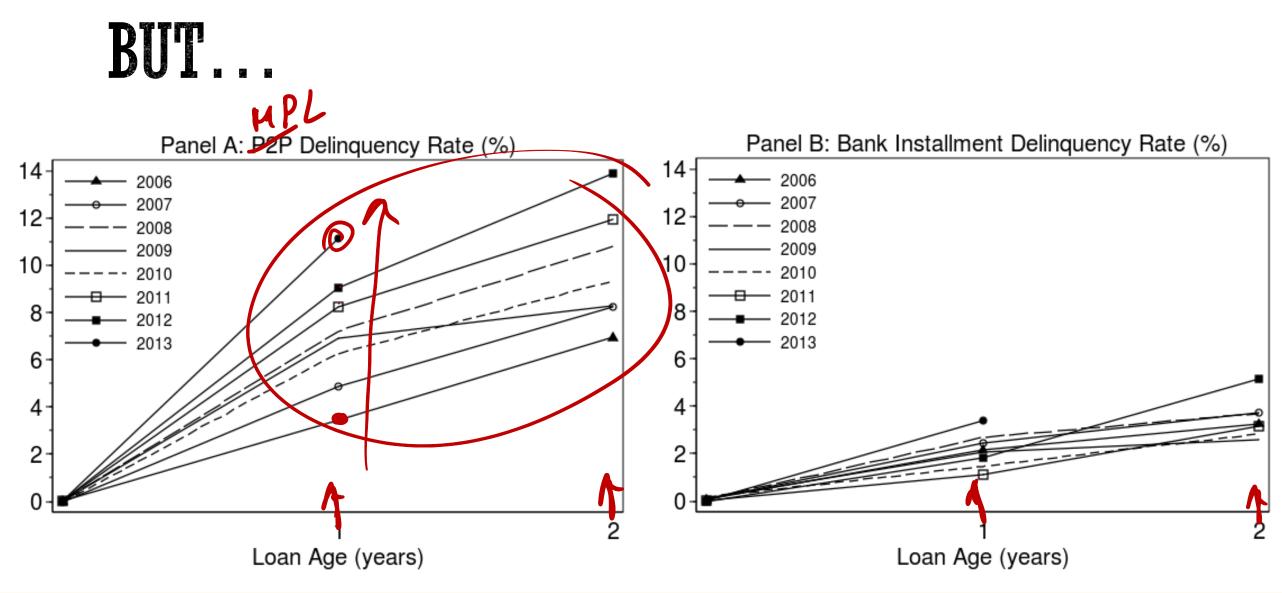








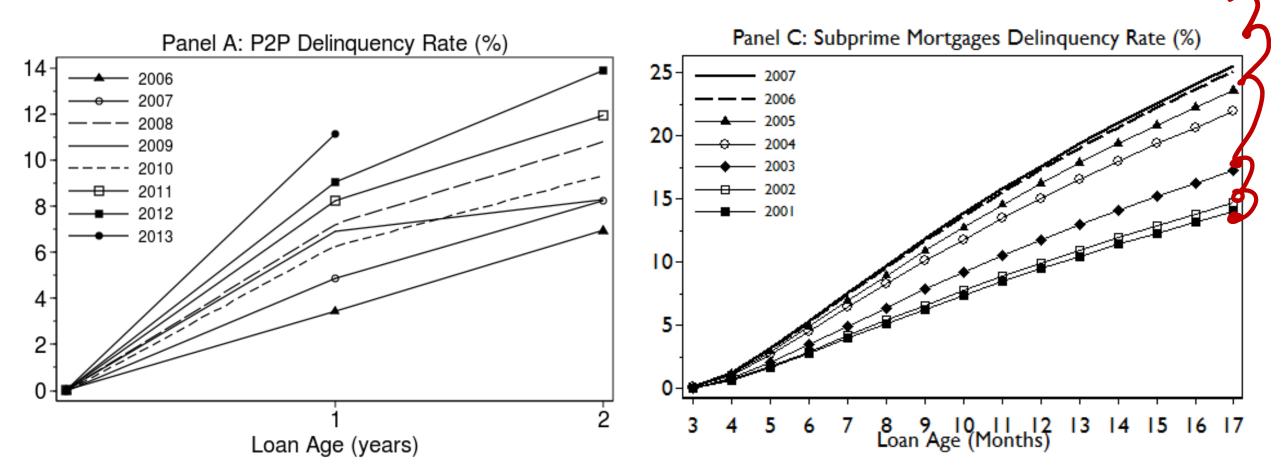
















BUT...

- Late 2016: Moody's put bonds backed by Prosper originated loans on watch for a downgrade. The reviews for downgrade were prompted by a faster buildup of delinquencies and charge-offs.
- Early 2017: Citigroup, that repackage roughly \$1.5bn of Prosper's loans into securities, severed their partnership.



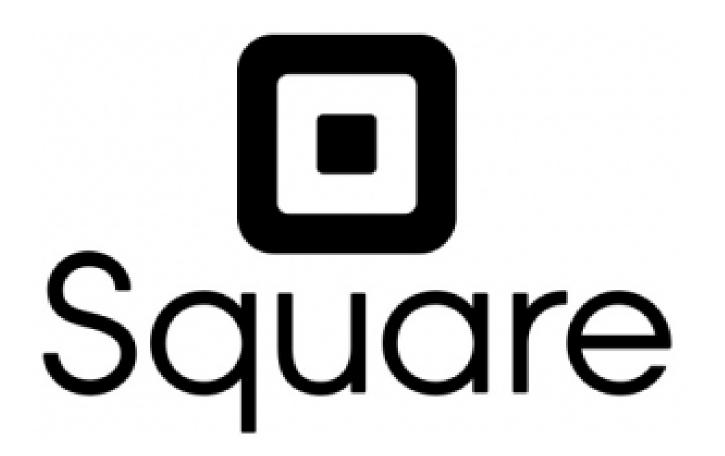


IS MPL A VIABLE LENDING MODEL?





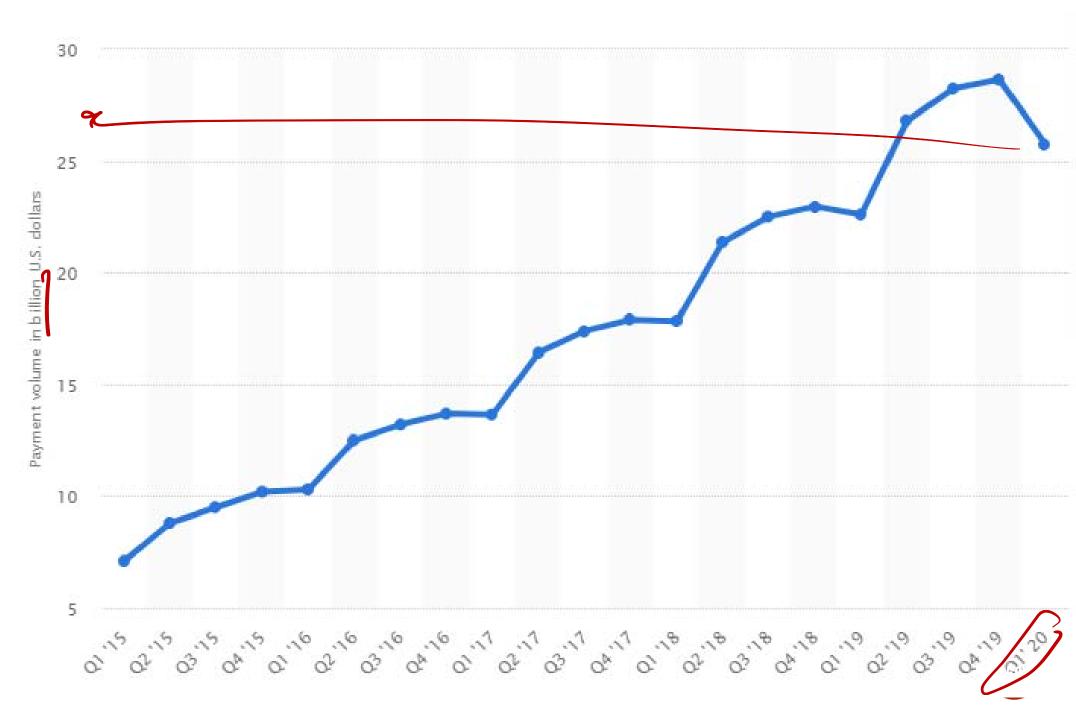
HOW ABOUT ...







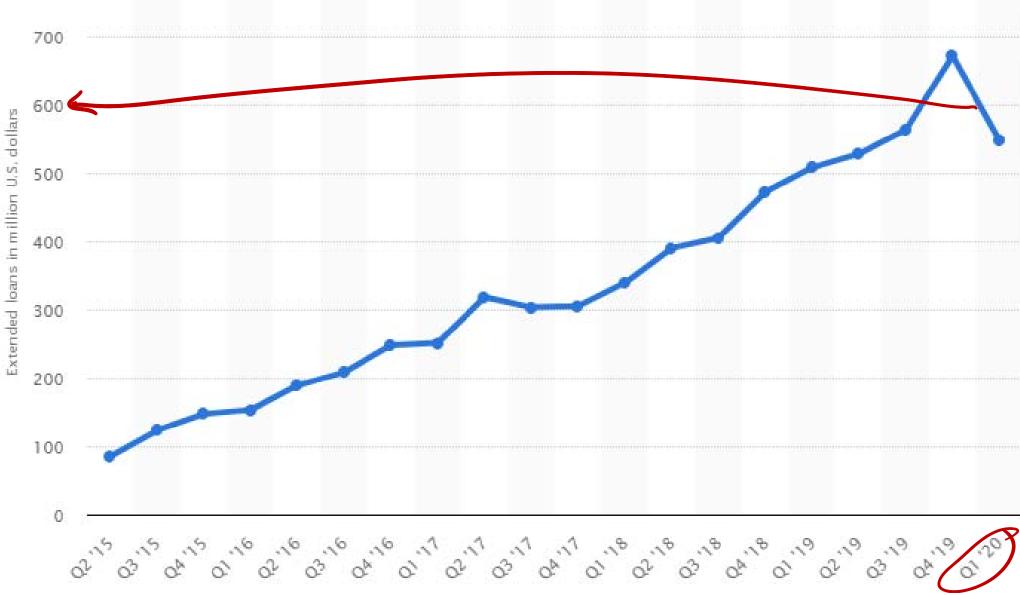






SQUARE BUSINESS LOAN VOLUME

800









WHAT IS OPEN BANKING?





WHAT IS AN API?







? THE PROBLEM

Receiving ACH payments allows for direct bank transfers, but getting users to connect their accounts can be a cumbersome process.

Plaid makes it easy to set up ACH transfers from any bank or credit union in the U.S. Once a user links their account via their banking credentials, Plaid retrieves their account and routing numbers. ACH payments can be set up in moments.



Paysafe:

7TransferWise

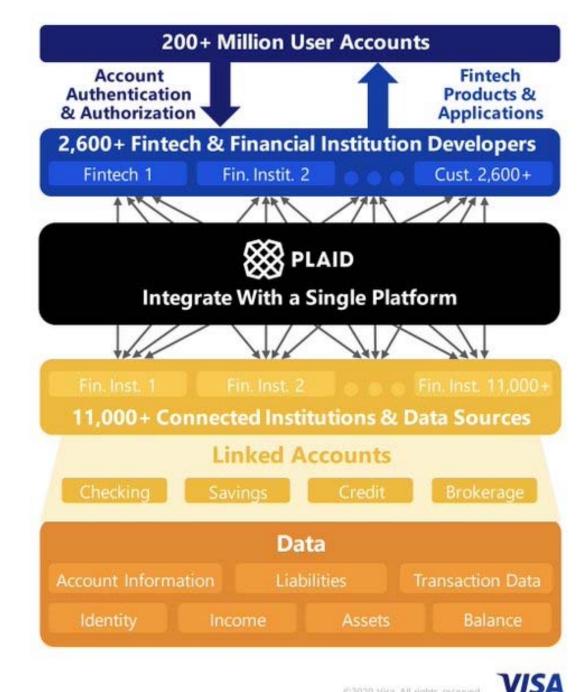
venmo





Plaid is the Best-in-Class Platform **Connecting Fintech Developers**, **Financial Institutions and Consumers**

- Plaid is a financial data network that makes it easy for people to securely connect their financial accounts to the apps they use to manage their financial lives
- Provides safe, secure connections for 80% of the largest U.S. fintech apps
 - 11,000+ bank and financial services companies
 - 2,600+ fintech developers
 - 200+ million consumer accounts, including one in four people with a U.S. bank account
- Headquartered in San Francisco; Founded in 2013
- Currently ~450 employees



VISA BOUGHT PLAID FOR \$5.9 BILLION

NILSON REPORT:

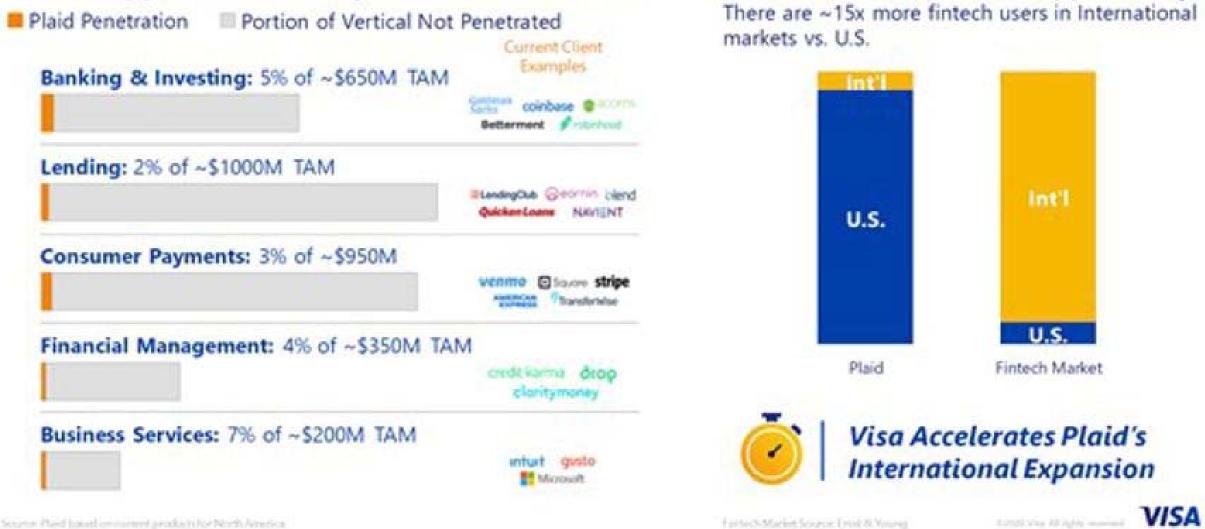
US MERCHANTS PAID \$88.4 BILLION IN CARD FEES IN 2016.





Plaid Expands Visa's Addressable Market by Providing High Value Services to High Growth Fintechs

Growth Opportunities in Key N.A. Fintech Verticals



International Expansion Opportunity

VISA RECENT ACQUISITIONS







MASTER CARD RECENT ACQUISITIONS







DAVE: OUTSMARTING OVERDRAFTS Founding Story

Dave is the finance version of David vs. Goliath. Three friends were fed up with their banking experience, often incurring \$38 overdraft fees and never having insights into how much money was left before payday.

With customer loyalty at big banks at an all time low, they figured building the next great financial institution, one that could service 99% of Americans, not just the 1%, was the right idea for the times.

Instead of building a bank right away, they started with solving for simple pain points like overdraft protection and automated budgeting to amass millions of loyal members.

Today, Dave has reinvented many other areas of finance, from no-interest cash advances, income creation, unbounceable checks and more to truly take on goliath.







A BRAVE NEW DIGITAL WORLD

- Marginal cost of an additional digital transaction tends to zero
- Capital requirements to build a digital business are lower
- Opex & Capex to manage a digital business are lower
- Economies of scale
- Attention is the name of the game
- Value creation and value chains get upended

Enabled by: cloud computing, mobile computing, edge computing, AI/ML, APIs, open banking regulation/legislation, faster payment rails, blockchain/crypto





IMPLICATIONS

- Service not product (products become services, SaaS)
- Share the value chain, instead of controlling it
- Orchestrate value among n+1 participants instead of exclude partners
- Networked businesses instead of siloed businesses
- Interoperability
- Using data (securing data, sharing data, monetizing data)
- Technology (cloud computing, APIs, ML, AI...) is the business model, instead of supports the business model





NEW BANKING/FINSERV MODELS?

- Bank as a Service (BaaS)
- Platform banking
- Marketplace banking
- Niche Banking
- Unbundled mono line
- Digital first (& only?)
- Defi (decentralized finance)
- Trojan Horse (big tech play)





INCUMBENTS REINVENTING BANKING

- DBS
- ING
- Capital One
- Goldman Sachs
- BBVA











ONE LAST THING

There is no such thing as a new idea. It is impossible. We simply take a lot of old ideas and put them into a sort of mental kaleidoscope. We give them a turn and they make new and curious combinations. We keep on turning and making new combinations indefinitely; but they are the same old pieces of colored glass that have been in use through all the ages.

Mark Twain





