FinTech: Shaping the Financial World

April 22, 2020
Class 7: Overview

• Facebook Libra Update
• Credit Sectors & Market Design
• Earlier FinTech - Credit Cards
• Disruptive Tech Across Credit Value Chain
• FinTech Credit Competitive Landscape
• Marketplace Lending
• Credit Scoring & Alternative Data
• Professionalism & Academic Integrity
Class 7: Readings

• 'Apple Card: 12 Fintech Companies Driving Credit Card Innovation' Crunchbase

• 'Need a loan? There's a tech company for that' Jason Abbruzzese, NBC

• 'Get to Know Your Marketplace Lenders' American Banker

• 'Alternative Data Across the Loan Life Cycle: How FinTech and Other Lenders Use It and Why' Experian
Class 7: Study Questions

• How have Big Tech firms positioned themselves to offer credit and lending products to consumers and businesses?

• What is marketplace or peer-to-peer lending? What is point of sale lending? How might they change the provision of consumer credit and its competitive landscape?

• How is so-called ‘Alternative Data’ and machine learning changing the world of credit ratings and underwriting?
# Libra vs. China DCEP

<table>
<thead>
<tr>
<th>Name of currency</th>
<th>Libra</th>
<th>Digital Currency Electronic Payment (DCEP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuer</td>
<td>Libra Association led by Facebook</td>
<td>People’s Bank of China (PBoC)</td>
</tr>
<tr>
<td>Blockchain Type</td>
<td>Permissioned blockchain (accessible to association members only)</td>
<td>Centralized private network controlled by PBoC</td>
</tr>
<tr>
<td>Peg</td>
<td>Basket of currencies including USD, EUR, JPY, GBP and SGD</td>
<td>Renminbi (RMB)</td>
</tr>
<tr>
<td>Status</td>
<td>Release Date TBC</td>
<td>Release Date TBC</td>
</tr>
</tbody>
</table>

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Source: ‘The Digital Currency Race’, Tabul8tor (12/4/19)
Libra 2.0

Source: ‘Understanding Libra 2.0: A compliant global platform for the digital programmable EUR, USD, GBP & Co.’, Philipp Sandner (4/17/20)

Courtesy of Phillipp Sandner. Used with permission.
Credit Sectors

• **Household:**
  - Mortgages, Auto, Credit Card, Personal Loans, Student Loans
  - Super Prime, Prime, Subprime
  - Secured, Unsecured, Term, Revolving
  - Purchase, Debt Consolidation, Refinance, Point of Sale

• **Corporate:**
  - Small Business, SBA Loans, SME / Mid Market, Large Enterprise
  - Bonds, Loans
  - Investment Grade, High Yield, Leveraged Loans
  - Unsecured - Cash Advance, Purchase Credit, Working Capital
  - Secured - Floor Plans, Invoice Factoring, Inventory Finance
Household Debt as Percent of GDP
Non Financial Corporate Debt as % of GDP

Source: IMF DataMapper
Credit & Lending: Market Design

Data
  • Alternative Data, Credit Scoring, Cross Selling, Marketing & Underwriting

Funding
  • Balance Sheet, Securitization, or Issuer Bank Partner

Marketing Channels
  • User Experience & User Interface

Risks
  • Credit / Default, Market (Basis, Rate, Spread, Volatility), & Prepayment
  • Funding, Liquidity, Model, Operational, & Reputational / Compliance

Roles
  • Brokerage / Origination, Underwriting, Credit Enhancing, Securitizing, Credit Rating, Appraising, Servicing, Collecting / Foreclosing, & Funding
Credit Cards & Charge Coins

Term ‘Credit Card’
Edward Bellamy’s Science Fiction
‘Looking Backward’ 1887

Charge Coins & Charga-Plates
Late 1880s – 1960s

First Bank Card
Charge-It
Flatbush National Bank
Brooklyn, 1946

Merchant Credit Cards
Late 1920s – 2000s

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Credit Cards

First General Merchant Card
Diners’ Club
1949

American Express
First Plastic Card
1959

Bank of America
First General Purpose
Credit Card
1966

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Disruptive Tech Across Credit Value Chain

Source: ‘Bridging the credit gap for Micro and Small Enterprises through digitally enabled financing models’, CGAP & Dalberg (January 2019)
FinTech – Payments & Credit

Big Tech

Payment Unicorns

Credit Unicorns
FinTech SME Lending Companies

- Alipay
- Amazon
- BlueVine
- Brex
- C2FO
- DPO
- Fundbox
- Fundation
- Funding Circle
- Intuit
- Kabbage
- Lendio
- Payoneer
- PayPal
- Prosper
- Seed
- Square
- Stripe
- Tencent WeBank
- Toast
- Upserve

AvidXchange, Tradeshift, TripActions
## Largest U.S. Mortgage Lenders – 2018
(out of $1.7 Trillion Originated)

<table>
<thead>
<tr>
<th>Lender</th>
<th>Loans</th>
<th>Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wells Fargo</td>
<td>258,762 loans</td>
<td>$83.4 B</td>
</tr>
<tr>
<td>Quicken</td>
<td>375,656 loans</td>
<td>$81.4 B</td>
</tr>
<tr>
<td>JP Morgan Chase</td>
<td>187,642 loans</td>
<td>$57.7 B</td>
</tr>
<tr>
<td>Bank of America</td>
<td>192,652 loans</td>
<td>$55.2 B</td>
</tr>
<tr>
<td>United Wholesale Mortgage</td>
<td>145,579 loans</td>
<td>$41.6 B</td>
</tr>
<tr>
<td>LoanDepot</td>
<td>124,027 loans</td>
<td>$32.0 B</td>
</tr>
<tr>
<td>U.S. Bank</td>
<td>132,253 loans</td>
<td>$29.5 B</td>
</tr>
<tr>
<td>Caliber Home Loans</td>
<td>104,037 loans</td>
<td>$29.1 B</td>
</tr>
<tr>
<td>Fairway Independent Mortgage</td>
<td>105,780 loans</td>
<td>$24.9 B</td>
</tr>
<tr>
<td>Flagstar Bank</td>
<td>73,087 loans</td>
<td>$19.6 B</td>
</tr>
</tbody>
</table>

Source: ‘Here are the top 10 mortgage lenders of 2018’ Housing Wire (9/6/19)
Market Share by Credit Card Issuer

Source: ‘List of Credit Card Companies, Card Networks & Major Cards’, WalletHub (1/13/20)

Note: Nilson Report and Federal Reserve data on outstanding credit card balances, as of Dec. 31, 2018.
Leading Chinese Credit Card Issuers

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Source: ‘Despite rapid digitisation of payments in China, credit card usage will reach new heights by 2020’, The Asian Banker (2/28/19)
U.S. Unsecured Personal Loans

Source: ‘U.S. Consumers Expected to Maintain Strong Credit Activity in 2020’, TransUnion (12/12/19)
Personal Loan Industry Trends

Percentage of total unsecured personal loan balances originated by fintech vs. others

Source: ‘Fintechs help boost US personal loan surge to a record $138 billion’, CNBC (2/21/19)
FinTech Personal Loan Companies

• Affirm
• Afterpay
• Avant
• GreenSky
• Klarna
• Lending Club
• Lending Tree
• Marcus (by Goldman Sachs)
• Monzo
• Nubank
• Prosper
• Revolut
• Rocket Loans
• SoFi
• Square Installments
• Upstart
Private Student Loan Originators

- Ascent
- Citizens Bank
- College Ave
- CommonBond
- Credible (comparison shopping)
- Discover
- Earnest
- EDvestinU
- INvested

- LendKey (partners w/ banks)
- MPower
- Navient
- Prodigy
- Sallie Mae
- SoFi
- SunTrust Bank
- Wells Fargo
Marketplace Lending - Lending Club
Online Fee Based Platforms Connecting Borrowers with Investors

Borrowers

3M+
Mainstream Consumers

600-850
FICO Range

$68K
Median Income

15.9%
Average APR

up to $40k
Loan Size

$16k
Average Loan Size

Investors

200k+
Self-directed individuals

80+
Managed Accounts

60+
Banks

90+
Institutions

16 months
Average Duration

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Source: ‘Investor Roadshow Presentation, Summer 2019’, Lending Club (Summer 2019)
Lending Club

2010
$102.2M originations facilitated
<10 Banks and Other Institutional
<30K Self-directed retail investors

2014
$4.4B originations facilitated
>70 Banks and Other Institutional
>90K Self-directed retail investors

2018
$10.9B originations facilitated
>230 Banks and Other Institutional
>200K Self-directed retail investors

Source: ‘Investor Roadshow Presentation, Summer 2019’, Lending Club (Summer 2019)
China Peer to Peer Lending

• 343 Companies, down from 2680 in 2016 per 493 B yuan ($70 B) loans outstanding down from 1.3 T yuan ($189 B)

• November 2019 Announced new P2P lender regulations
  • Require 1 B yuan Capital
  • Only Institutional Funding
  • Or must exit business

Source: ‘China’s scandal-plagued P2P sector faces ‘continued pressure’ in 2020 amid tightening regulation’ South China Morning Post (1/7/20)
Credit Scoring


• National Credit Reporting Cos: Equifax, Experian, Trans Union
  • Innovis, PRBC

• Other Screening Credit Reporting Cos:
  • Check and Bank (6), Employment (15), Gaming (1), Low Income (5), Personal Insurance (4), Medical (2), Retail (1) Supplementary (4), Tenant (7), Utilities (1)

• FinTech Startups:
  • Credit Score Services: Credit Karma, Credit Sesame, Credit.com, Mint, NerdWallet, Quizzle
  • Data Aggregation: Envestnet |Yodlee, Finicity, Plaid

Source for credit reporting companies: ‘List of Consumer Reporting Companies’ CFPB (2020)
Professionalism & Academic Integrity

• Success goes to those Prepared, Curious & Self Starters
• Respect & Courtesy builds Reputations, Networks & Trust
• Learning comes best to those who Listen as well as Talk
• Understanding Strategy and Paying Attention to Details both Matter
• Staying True to your Values is the best alternative

• Avoiding Plagiarism is not just an Academic Integrity Policy
  • It respects other Authors
  • It protects one’s Grade, Job and Reputation

Be attentive, speak in class, keep your video on, and audio muted unless speaking
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