FinTech:
Shaping the Financial World

April 27, 2020
Class 8: Overview

- Credit Scoring & Alternative Data
- Challenges of Traditional Banking
- Online Banking
- Neo & Challenger Banks
- Funding & Valuations
- Traditional Banks Mobile Offerings
FICO Scores

Source: ‘What’s in my FICO. Scores?’, myFICO, Fair Isaac Corporation
Alternative Data

• Bank, Checking, Employment, Income, Insurance, Tenant, Utilities
• Cash Flow Underwriting

• Consumption and Purchase Transactional Data

• App Usage, Browsing History, Email Receipt, Geolocation, Social Media Data,
• Educational Background, Employer, Occupation, Work History
Alternative Data FinTech Landscape

Source: ‘Alternative Data Goes Mainstream in Financial Services’, Datanami (11/21/19)
Class 8: Readings

• 'The Challenger Banks That Threaten to Disrupt Financial Institutions'
  Bill Streeter, The Financial Brand

• 'Dawn of The Neobank: The Fintechs Trying to Kill the Corner Bank'
  Forbes

• '2020 will be a challenging year for challenger banks'
  Romain Dillet, TechCrunch
Class 8: Study Questions

• What are Challenger or Neobanks?

• What gaps or ‘pain points’ in traditional banking might Challenger Banks be addressing? What challenges face these new banks?

• How might Challenger or Neobanks affect the banking landscape?
Challenges of Traditional Banking

• Legacy Branch Networks
• Legacy Tech
• Product Commoditization
• Competitive Landscape
• Costs & Fees
• User Interface and User Experience
• Trust
History of Online Banking

1983

Bank of Scotland
In 1983 Bank of Scotland offered UK customers Homelink, which enabled consumers to send transfers and pay bills via a television set and a telephone.

1990

Telebank
Founded in 1990, Telebank was a completely branchless bank, initially operating via the phone and later online.

1994

Stanford Federal Credit Union
In 1994, the Stanford Federal Credit Union launched the first online banking website.

1995

Wells Fargo
In 1995, Wells Fargo began offering customers online access to their accounts, becoming the first major bank to do so.

1999

Yodlee
Founded in 1999 as the first account aggregation platform. 2001: Acquired Vertical One. 2015: Acquired by Envestnet for approximately $600 mm.

1999

ING Direct
Launched in 1999 by Bank One with the slogan 'If your bank could start over, this is what it would be.'

1996

Net.Bank
Online only NetBank was founded in 1996 and went public in 1997.

2001

Bank of America
In 2001 Bank of America reached 3 million online customers (20% of its customer base).

2006

Mint
Launched in 2006, quickly became a big player in the new wave of PFM. 2009: Acquired by Intuit.

2009

Aldermore
UK Based online bank founded in 2009 focused on helping SMEs access lending products.

2009

Ally Bank
_transformed from GMAC Bank to Ally Bank in 2009 as an online only bank.

Top reasons consumers adopt challenger bank solutions

Easy to set up an account 43%
More attractive fees/rates 15%
Access to different products/services 12%
Better experience 11%
Better quality of services 10%
More innovative products than available from banks 6%
Greater level of trust than traditional institutions 2%

SOURCE: Cornerstone Advisors © February 2020 The Financial Brand
Neo and Challenger Banks

- Ally Bank (2009)
- Aspiration (2013)
- Atom Bank (2016)
- Axos (1999)
- BankMobile (2015)
- BigPay (2018)
- Bunq (2012)
- Chime (2013)
- Dave (2016)
- KakaoBank (2016)
- Marcus (2016 by Goldman Sachs)
- MoneyLion (2013)
- Monese (2015)
- Monzo (2015)
- N26 (2016)
- Nubank (2013)
- OakNorth (2015)
- Revolut (2015)
- SoFi (2011)
- Starling Bank (2014)
- Tandem (2015)
- TymeBank (2015)
- Uala (2017)
- Varo (2015)
- Volt (2017)
- WeBank (2015)
Neo and Challenger Banks

# Product Offerings

<table>
<thead>
<tr>
<th>Product</th>
<th>Revenue Stream</th>
<th>Example Companies (★ Indicates Starting Product Category)</th>
</tr>
</thead>
</table>
| Checking / Savings Accounts & Debit / Prepaid Cards | • Interchange  
• Fee Income | BankMobile, Aspiration, Revolut, STARLING BANK, SoFi, STASH, Atom, TANDEM, Varo, N26, monzo, SoFi, SIMPLE, Capital, Chime |
| Investment Products | • Fee Income | MoneyLion, Aspiration, SoFi, Capital, N26, STASH, Chime |
| Installment Loans | • Interest Income (if on balance sheet)  
• Gain on Sale / Servicing Fees | MoneyLion, upgrade, Varo, SoFi, BankMobile, N26, TANDEM |
| Student Loans | • Interest Income (if on balance sheet)  
• Gain on Sale / Servicing Fees | SoFi, Earnest |
| Credit Cards | • Interchange  
• Interest Income  
• Servicing Fees | Deserve, Ollo, BankMobile, TANDEM, N26, upgrade |
| Home Mortgages | • Interest Income  
• Gain on Sale  
• Servicing Fees | SoFi, Atom, TANDEM |
| HELOC / Home Equity Loans | • Interest Income  
• Gain on Sale  
• Servicing Fees | N/A |

(1) Coming in 2020  
(2) Currently only offered in Germany  
(3) Not offering complete challenger bank solutions, only home equity loans at the moment.

Number of customers - Selected top 8 bank challengers in Europe

In million

Source: ‘Bank Challengers in Europe’, Inteliace Research, SlideShare (January 6, 2020)

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## Customer Accounts

<table>
<thead>
<tr>
<th>Founded</th>
<th>Bank</th>
<th>Country</th>
<th>Current Number of Customer Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Kakaobank</td>
<td></td>
<td>10 Million</td>
</tr>
<tr>
<td>2015</td>
<td>Monese</td>
<td></td>
<td>1 Million</td>
</tr>
<tr>
<td></td>
<td>Monzo</td>
<td></td>
<td>2 Million</td>
</tr>
<tr>
<td></td>
<td>STASH</td>
<td></td>
<td>4 Million +</td>
</tr>
<tr>
<td>2014</td>
<td>Revolut</td>
<td></td>
<td>6 Million</td>
</tr>
<tr>
<td></td>
<td>Starling Bank</td>
<td></td>
<td>1 Million</td>
</tr>
<tr>
<td></td>
<td>Aspiration</td>
<td></td>
<td>1.5 Million</td>
</tr>
<tr>
<td></td>
<td>MoneyLion</td>
<td></td>
<td>5 Million (1)</td>
</tr>
<tr>
<td>2013</td>
<td>N26</td>
<td></td>
<td>3.5 Million</td>
</tr>
<tr>
<td></td>
<td>NuBank</td>
<td></td>
<td>15 Million</td>
</tr>
<tr>
<td></td>
<td>Capital</td>
<td></td>
<td>1.8 Million</td>
</tr>
<tr>
<td></td>
<td>Tandem</td>
<td></td>
<td>6.5 Million</td>
</tr>
<tr>
<td></td>
<td>Chime</td>
<td></td>
<td>500 Thousand</td>
</tr>
</tbody>
</table>

Challenger Bank Valuations

Nubank: $10.4 billion
SoFi: $4.3 billion
N26: $3.5 billion
Monzo: $2.6 billion
Revolut: $1.7 billion
Chime: $1.5 billion
Atom Bank: $1.3 billion
Dave: $1.0 billion
MoneyLion: $0.7 billion

Sources: the companies, CB Insights, PitchBook.

Funding to Date

Post Money Valuation

- **nu**bank: $10,400, July 29, 2019
- **Chime**: $5,800, December 5, 2019
- **N26**: $3,500, July 18, 2019
- **Monzo**: $2,500, June 24, 2019
- **Revolut**: $1,700, April 25, 2018
- **Ualà**: $1,000, November 25, 2019

Amounts represent cumulative funding as of January 2020


Courtesy of FT Partners. Used with permission.
<table>
<thead>
<tr>
<th>Company</th>
<th>Number of customers, [no common definition] in million, as of Dec. 2019*</th>
<th>Focus</th>
<th>Company valuation per customer post money, in '000 US$, as of Dec 2019*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revolut</td>
<td>9.0</td>
<td>Accounts, fx, payments, P2P</td>
<td>0.82</td>
</tr>
<tr>
<td>TransferWise</td>
<td>6.0</td>
<td>Payments, fx</td>
<td>0.58</td>
</tr>
<tr>
<td>N26</td>
<td>4.5</td>
<td>Accounts, payments, business banking</td>
<td>0.78</td>
</tr>
<tr>
<td>monzo</td>
<td>3.5</td>
<td>Accounts, payments, loans, business banking, other</td>
<td>0.74</td>
</tr>
<tr>
<td>monese</td>
<td>1.4</td>
<td>Transfers, Accounts</td>
<td>1.03</td>
</tr>
<tr>
<td>Starling</td>
<td>1.0</td>
<td>Accounts, payments, loans, business banking</td>
<td>n/a</td>
</tr>
<tr>
<td>Curve</td>
<td>0.8</td>
<td>Payments, fx, card aggregation</td>
<td>0.40</td>
</tr>
<tr>
<td>Tandem</td>
<td>0.5</td>
<td>Savings, credit cards</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Traditional Banks Mobile Offerings

Traditional banks have started responding to Challenger Banks by offering competing online / mobile solutions.

SunTrust launches LightStream
Jan. 2012

Customers Bank launches BankMobile
Mar. 2012

JPMorgan Chase & Co. launches Finn by Chase (1)

Wells Fargo launches Greenhouse in pilot states
Nov. 2018

CIT launches high-yield savings product CIT Savings
Jan. 2015

Goldman Sachs launches Marcus

Citizens Financial Group, Inc. launches Citizen Access
Jun. 2018

PNC launches PNC High Yield Savings
Oct. 2018
