


## Company Overview

## Sallie Mae Overview

- Provides consumer banking services primarily in the form of primary educational loans, making up $94 \%$ of its current loan book
- SLM is a market leader within the private education sector, holding over $54 \%$ of the market share
- SLM has established business relations with over 2,400 universities and 374,000 families throughout the U.S. managing more than $\$ 26.5$ billion in assets


## Navient Spinoff

- Navient is a student loan servicer that serves around 6.5 million borrowers
- The company spun-off of Sallie Mae in 2014 acting as a serviced for federal and private student loans while Sallie Mae offers private student loans
- The company spun-off as Sallie Mae was no longer allowed to offer both private and federal loans


## Company Timeline

- SLM began in 1972 as a federally chartered government-sponsored enterprise known as the Student Loan Marketing Association
- It began to privatize its operations in 1997, a process that resulted in complete privatization in 2004 when Congress terminated its federal charter
- In 2006, Sallie Mae acquired Upromise
- The Health Care and Education Reconciliation Act of 2010 forced Sallie Mae to shift its business to private education loans not insured by the federal government
- It began trading publicly in 2011 and spun off Navient Corporation in 2014



## Company Overview (Cont.)

## Federal Government

- Federal government accounts for $92 \%$ of loans given out to students US government holds loans valued at more than $\$ 1.5$ trillion
- From 2011-2016 the government saw an over $600 \%$ increase in owned student debt


## 2019 US Student Loans



- Private Student Loans
- Government Student Loans


## Institutional Lenders

- Largest players besides Sallie Mae are divisions within the US's largest consumer lenders
- The divisions account for a cumulative lending of 21.79 billion while Sallie Mae holds loans valued at over \$20.99 Billion

Institutional Market Share


## Refinancing Companies: SoFi

- Social Finance (SoFi) is a leading provider of student loan refinancing offering peer to peer lending
- Enables students to receive a lower interest rates based on their career experience, monthly income, financial history and education

SoFi Loan Growth


Less of a threat
More of a threat


## Funding Sources

- Sallie Mae operates as a simple lending company, using its borrowed capital to lend back out to students. The company obtains its funding from two main sources, deposits and loan securities.
- The company is able to generate revenues by collecting financing at a lower cost than it is lending out, collecting the spread


## Deposits Funding

- Brokered Deposits: Larger versions of traditional retail deposits. These are deposits made to an insured banking institution by a $3^{\text {rd }}$ party broker. Typically these are divided portions of a large denomination deposits made by high-networth individuals
- Retail Deposits: The Traditional mass market banking from the owned and operated Sallie Mae Bank, a traditional banking company based in Utah which targets average consumers


## Loan Securitization

- A common way lending institutions raise capital is through loan securitization, which is when a bank - such as Sallie Mae - sells off a portion of its loans to the public market to raise further capital
- Will go more into this type securitization later


\$1.9 Billion
Revenues

$$
2018 \text { Originated Loans }
$$

\$20.3 Billion
Loan Portfolio

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\begin{aligned}
& \text { Company } \\
& \text { Overview }
\end{aligned}
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Industry
Overview


Thesis

Risk
Factors

## Company Overview (Cont.)

## Student Loan Types

- In 2018, the company generated over $\$ 1.9$ Billion in interest income, primarily from its student loan portfolio and its corresponding interest payments
- Around $\sim 86 \%$ of the company's $\$ 20.3$ Billion portfolio came from three loan products...

1. Deferred: Students aren't required to make payments while in school and during a 6-month grace period
2. Fixed Payment: Loan requires monthly fixed payments while the student is in school
3. Interest Only: Student only pays monthly on the interest on their debt

## Portfolio Quality

- In 2018, the company's overall Student Loan portfolio had an average FICO score 746, with 98\% cosigner rate
- The overall portfolio in 2018 had an overall FICO score of $\sim 700$, with $87.2 \%$ cosigner rate




## Current Expected Credit Loss (CECL

- The regulation "Current Expected Credit Losses" is a new credit loss accounting standard that was issued by FASB on June 16, 2016
- CECL requires the estimation of losses on the lifespan of loans
- The regulation will officially take affect starting December 15, 2019
- Credit Suisse Equity Research analysts anticipates a $10 \%$ impact on 2020 GAAP earnings per share.

$$
\begin{array}{cc}
\mathbf{- 1 0} \% & \mathbf{+ 4 0 0} \% \\
\text { CS Expected } & \text { Increase to Bad Debt } \\
\text { Impact on EPS } & \text { Expense Reserves }
\end{array}
$$




## Student Loan Types

- Student loans in the US are the $2^{\text {nd }}$ largest source of debt, only being beaten by mortgages
- In Q2 '19, the student loans industry totaled over \$1.61 Trillion, while mortgages came in at $\$ 10.1$ Trillion
- The industry is also the US' fastest growing source of debt for US households, growing over 150x faster than mortgages since 2007
- The average student pays $\$ 96,000$ for four years of college, which more than $53 \%$ of families needed loans to pay children's undergraduate education
- $70 \%+$ of undergraduate students finance their education with one or more student loans



## Political Fears

611,577 views \| Jun 24, 2019, 07:18am

## Bernie Sanders: I Will Cancel All \$1.6 Trillion Of Your <br> Student Loan Debt <br> DEMOCRATIC CANDIDATES POLICIES <br> How Elizabeth Warren would cancel student loan debt

Sallie Mae employees enjoy free trip to Maui amid \$1.6T student loan crisis

- Those who have been following the 2020 Presidential Election Campaign have likely heard about student loan debt forgiveness platforms
- Currently Bernie Sanders and Elizabeth Warren, highpolling democratic candidates, have put forward ambitious student debt forgiveness plans
- The possibility of this type of forgiveness is uncertain, and the reach the candidates into private debts is limited
- Bernie is the only leading democratic presidential candidate to attack private student lenders, while Warren promises to eliminate federal student loan debt



## Industry Overview <br> Government vs Private Student Loans

## Government Student Loans

- The US government is the largest lender for student loans, holding a student loan portfolio at more than $\$ 1.49$ Trillion
- Nearly $92.3 \%$ of US Student Loans are issues by the federal government and some smaller state government programs
- The loans are given out on need-basis rather than on credit
- The government loses ~\$250 Billion per year on these loans
- YOU CAN NOT DEFAULT ON FEDERAL LOANS


## Private Student Loans

- Many large private student loan companies, such as Sallie Mae and NelNet, started out as quasi-governmental agencies or under the department of education
- These quasi-governmental companies were very successful under the Federal Family Education Loan Program
- The loans are now given out on a credit-worthy-basis
- Most of these loans require high FICO's and co-signers
- Students CAN default on these loans


## History of Student Loan 'Crisis'

- The US government holds a very large portion of total US Student Loan debts, totaling $\$ 1.49$ Trillion. These loans make up over 37.8\% of ALL US Government assets. This hasn't always been the case, and the increase was directly attributable to the Affordable Care Act in 2012
- Prior to the ACA, the federal government would give financing to private banks, such as Sallie Mae, to lend out to students. In the event that the student had to default on these loans, the government would "back up" the loan, and pay the balance to the bank. This was carried out under the Federal Family Education Loan Program (FFEL), which allowed the government to hold 0 debts on its book up to 2012.
- The ACA created the Federal Direct Loan Program (FDLP) to replace FFEL. The passing of this program caused the number of privately originated student loans to fall by over $90 \%$ between 2011-2016.
- From 2011-2016 the government has seen an over $600 \%$ increase in its owned student debt



## Industry Overview

Types of Student Loans

## Student Loan Types

- The department of education is one of the biggest banks in the country, and as such this federal department lends their subsidized student loans through several ways.
- Federal Direct Loan Program (FDLP): This program was created after the passage of the Health Care and Education Reconciliation Act of 2010. The FDLP is the sole government-backed loan program in the US. Prior to this, the government provided guaranteed loans to private lenders, which was eliminated in 2010 due to a perception they benefited private student loan companies at the expense of taxpayers. Under this program are all future Stafford and PLUS loans.
- Federal Family Education Loan Program (FFEL): This program was discontinued following 2010. Under this program, the federal government provided loans through private lenders with federally guaranteed funds. This program
- Perkins Loans: Federal Perkins loans are low-interest loans made through a school's financial aid office using federal funds. These loans are given to undergraduate and graduate students with that demonstrate exceptional financial need. This program ended on June 30, 2018, and as a result no new students can receive Perkins Loans




## Industry Overview <br> Tuitions Rising but Incomes Flat?

## Bubble?

- There has been a lot of discussion and fear in the market and in the news lately about a student loan bubble
- This "bubble" is being driven by high government funding for college and slowing household income growth. The bubble is also being suppressed by government default laws
- Recent data says that $11 \%$ of borrowers are 90 days or more delinquent, which is result of the education rising over $150 \%$ across four decades, while income growth has plateaued seeing only a $20 \%$ increase across the same time period


## Government Funding

- Significant research has gone into researching the cause and effect government spending has on tuition
- The Federal Reserve of New York found that for every additional $\$ 1$ the federal government spent on loans, tuitions rose by over $\$ 0.65$



## Household Income

- Household income in the US grows around $0 \%-1 \%$ annually
- Student loans however have been growing between $2 \%-3 \%$ annually
- This diverging growth creates fears on long-term growth potential




## Default Rates

- Default rates on government student loans in the US are extremely rare
- In 2018, congress created a program titled "The Public Service Loan Forgiveness Program"
- Of the 54,184 requests, less than $1 \%$ of were approved
- Looking at the possibility of a selfcorrecting cycle, where there are mass delinquencies and defaults, this too seems unlikely.
- The fact remains that there is no mechanism from the student loan bubble to burst.



## Industry Overview <br> Asset Backed Securities

## History of Asset Backed Securities

- Asset backed securities are unique security whose income payments and hence value is derived from and collateralized by a specific pool of underlying assets
- Often these assets are a group of smaller illiquid assets which are unable to be sold individually
- The ABS market was first created in the 1980's with the securitization of auto loans and credit card receivables
- The sector has grown rapidly since, evolving into a diversified $\$ 1.61$ trillion market
- The main "buckets" of these ABS' are consumer, corporate, commercial, and whole business



## ABS types



- Consumer ABS: Backed by the cash flows from personal financial assets, such as student loans, credit cards, and auto-loans.
- Corporate ABS: Securities constructed from pools of debt securities. These include more complex securities such as CLOs, CBOs, CDOs, ABS CDOs, TRUP CDOs, CRE CDOs, CDO-squared.
- Commercial ABS: Backed by cash flows from receivables, such as trade receivables, loans and/or leases on commercial equipment.
- Whole Business ABS: Supported by cash flows from operating assets, such as franchise and brand royalties, and billboard leases.



# Industry Overview <br> Asset Backed Securities How it's Made 

## Creation of ABS

- The SPV is typically created by the originator of the assets being securitized and is a bankruptcy remote entity
- This type of legal structure insulates investors who purchase securities issues by the SPV from the risk of bankruptcy of the asset originator
- Instead, investors are only exposed to the risks that could disrupt cash flows from the designated pools of assets
- Often, the credit risk of this pool of assets is lower than the overall business risk of the asset originator
- One important factor for the originator of the assets creating the SPV, is the Credit Risk Retention regulation
- The regulation was passed by the Department of the Treasury and the Federal Reserve in October 2014 under Section 941 of the Dodd-Frank Act for ABS'
- The regulation requires sponsors of $A B S$, such as Sallie Mae, to retain an economic interest in an ABS transaction of at least $5 \%$ of the credit risk


The SPV purchases a pool of diversified, cash flow generating assets, such as commercial mortgages, franchise royalties,
or bank loans.
The SPV finances this purchase by selling
debt and equity interests in the pool, which
are collateralized by the underlying assets.
By transferring risk assets to the SPV in
return for cash, this improves the credit
profile of the originator.

The cash flows generated by
the assets are used to service
interest and repay principal
to debt investors, with equity
investors receiving any
residual cash flows.



## CECL Fears Overblown

- Analysts have been concerned over the ambiguity surrounding how the company will account for the upcoming CECL regulation.
- The Federal Reserve and the OCC predict that the new CECL rule - which will take affect by 2020 - will cause the industry's allowances to increase by upwards of $30 \%-50 \%$
- Current market analysts are anticipating a $10 \%$ impact on 2020 GAAP EPS, and a reserve ratio of 7.2
- This anticipated reserve ratio would be upwards of $400 \%$ larger than the company's current reserve ratio of $1.8 \%$

| \$MM | Current Accounting CECL Accounting Adjusted Core Presentation |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending Loan Balances |  |  |  |  |  |  |
| 2019E | \$ | 24,009 | \$ | 24,009 | \$ | 24,009 |
| 2020E |  | 26,424 |  | 26,424 |  | 26,424 |
| Reserve Ratio |  | 1.8\% |  | 7.2\% |  | 7.2\% |
| Period Ending Reserves (\$) |  |  |  |  |  |  |
| 2019E |  | 441 |  | 1,729 |  | 1,729 |
| 2020E |  | 503 |  | 1905 |  | 1905 |
| 2020E Reserve Build |  | 62 |  | 176 |  | 176 |
| 2020e NCO's |  | 303 |  | 303 |  | 303 |
| 2020E Provisions |  | 365 |  | 479 |  | 303 |
| Incremental Provisions from CECL |  |  |  |  |  |  |
| 2020 EPS | \$ | 1.41 | \$ | 1.21 | \$ | 1.52 |
| Impact on Current 2020E EPS |  |  | \$ | (0.20) | \$ | 0.11 |
|  |  |  |  | (-14.3\%) |  | 7.8\% |

## High Tier-1 Capital Ratio

- One of the biggest risks small-midsized banks face from the upcoming CECL regulation, is maintaining compliant levels of liquidity
- SLM is not exempt from the 'US Basel III' minimum regulatory capital-ratios
- The company keeps their capital ratio almost 4\% $5 \%$ above these minimum levels

Sallie Mae Capital Ratio Surplus


| Ratio Type | Minimum <br> Ratio | Conservation <br> Buffer | Effective <br> Minimum | SLM Ratio <br> 2018 |
| :--- | :---: | :---: | :---: | :---: |
| Common Equity Tier 1 Capital Ratio | $4.5 \%$ | $2.5 \%$ | $7.0 \%$ | $12.1 \%$ |
| Tier 1 risk-based capital ratio | $6.0 \%$ | $2.5 \%$ | $8.5 \%$ | $12.1 \%$ |
| Total risk-based capital ratio | $8.0 \%$ | $2.5 \%$ | $10.5 \%$ | $13.3 \%$ |
| Tier 1 leverage ratio | $4.0 \%$ | $2.5 \%$ | $6.5 \%$ | $11.1 \%$ |



## Investment Thesis

Historically Low Multiples Create Strong Buying Opportunity


Return on Assets



Return on Invested Capital



## What is refinancing?

- Existing loans can be refinanced into loans with better term
- Existing loan paid off with a new loan at a lower rate
- Possible after a history of credit worthiness is demonstrated


## Why is it bad for SLM?

- Purpose of HY loans is to "milk" exorbitant interest
- Same reason why many HY loans have prepayment penalties
- Refinancing would negate any point of a HY loan


## Student Loans:

8.5\% Avg. Fixed Rate
7.9\% Avg. Variable Rate

## Mortgages:

4.0\% Avg. Fixed Rate 3.2\% Avg. Variable Rate

Who is doing this? Mostly startups
commonbond earnest LendKey

## A few banks are doing it as well



## Citizens

Financial Group, Inc.

First Republic
It's a privilege to serve you ${ }^{\circ}$

## Refinancing is a threat because:

- Refinancing firms allow students to cut the tenor of their existing loans with SLM and replace it with lower rate debt


## But there's a few issues:

- This option is only available for the top pool of students that have great credit (less than 10\%)
- Most traditional banks won't even bother with this because of the complications with student debt vs regular debt (no collateral, grace period, deferment)


## Personal Loan:

7.8\% Avg. Fixed Rate
6.8\% Avg. Variable Rate

## Credit Card Debt:

17.4\% Avg. Variable Rate


Source: $\overline{\text { NerdWallet, CreditCards.com, Bankrate.com }}$


# The Bigger Issue (Part 1) 

Is the refinancing startup model realistic?

Purpose of a Firm for Equity Owners


## A Note On Capital Raising

- The traditional ways to raise money are debt and equity. Equity is more expensive than debt.
- Banks have a special form of financing called "deposits".
- Deposits are a form of debt with the lowest cost of capital, or from your perspective, the lowest rate of return.
- To raise money through deposits, you need to be a national or state-chartered bank - these regulations are put in place because deposits are a serious business.
- Banks need to be certified to take your money.

| Type | Form | Cost | Return | Restrictions |
| :--- | :--- | :---: | :---: | :--- |
| Debt | Deposits | Lowest <br> $(<1 \%)$ | Lowest <br> $(<1 \%)$ | Highest <br> - Need license |
|  | Loans/Bonds | Lower <br> $(<5 \%)$ | Lower <br> $(<5 \%)$ | High |
| - Need assets |  |  |  |  |
| Equity | Stock | Highest <br> $(\sim 8 \%)$ | Highest <br> $(\sim 8 \%)$ | Lowest |
| - Need literally nothing |  |  |  |  |

Ultimately, banks are able to lower their cost of capital through deposits. On the flip side, it's very difficult to become a bank without deposits. The return on loans doesn't justify a firm that can't raise deposits.


## The Bigger Issue (Part 2)

Is the refinancing startup model realistic?

## State Chartered Deposit Charters

- The Bank Holding Act Company of 1956 prohibits non-banks from being able to take deposits (by preventing FDIC insurance).
- The loophole is that if you're a "non-bank bank", you're allowed to apply for a state chartered ILC (industrial loan company). Only 7 states use this, the most prominent of them being Utah.
- Why many banks are "chartered in Utah".
- Google and Walmart have applied for these charters and were denied.
- SoFi has been denied its bank charter in 2017 and it desperately needs one to offer the rates it does.

SoFi's Bank Charter Has Almost No Chance, Former SEC Chairman Says

- Grace Noto $\#$ September 18, 2017


# Embattled Fintech Firm SoFi Drops Plan to Open a Bank 

ByPeter Rudegeair<br>Updated Oct. 13, 2017 4:06 pm ET



# The Bigger Issue (Part 2) 

## SoFi Disclaimer

"SoFi Money is a cash management account not a bank account, and is offered by a broker dealer. The SoFi Money account is a brokerage account. Neither SoFi nor its affiliates is a bank."
"The cash balance in SoFi Money accounts is swept to one or more program banks where it earns a variable rate of interest and is eligible for FDIC insurance. FDIC Insurance does not immediately apply. Coverage begins when funds arrive at a partner bank. There are currently six banks available to accept these deposits, making customers eligible for up to $\$ 1,500,000$ of FDIC insurance (six banks, $\$ 250,000$ per bank). If the number of available banks changes, or you elect not to use, and/or have existing assets at, one or more of the available banks, the actual amount could be lower."

| Lender | Fliod APr | Verioblo APR | Banks can offer |
| :---: | :---: | :---: | :---: |
|  | 3.14-6.69\% ${ }^{*}$ | 2.39-6.01\% ${ }^{*}$ |  |
| $\cdots$ | 3.21-7.24\% ${ }^{*}$ | 2.14-7.21\% ${ }^{\text {* }}$ |  |
| earnest | 3.45-6.99\%* | 2.05-6.49\% ${ }^{*}$ | If you're only |
| Sofita | 3.46-7.94\% ${ }^{*}$ | 2.14-7.94\% ${ }^{*}$ | capitalized by debt |
| OEENEED | 3.48-6.03\% ${ }^{\text {* }}$ | 2.67-7.41\% ${ }^{\text {a }}$ | nd equity, this |
| LendKey | 3.49-8.36\% ${ }^{*}$ | 2.01-8.88\% ${ }^{*}$ |  |



# The Bigger Issue (Part 2) 

## State Chartered Deposit Charters

- The Bank Holding Act Company of 1956 prohibits non-banks from being able to take deposits (by preventing FDIC insurance).
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#### Abstract

"SoFi Money is a cash management account not a bank account, and in affornd hur huntar doalar Tha SoFi Money account is DFi nor its affiliates is "The cash b more progra and is eligib immediately partner ban these depos

\section*{Translation: We don't} take deposits, but we have friends that do. pt to one or e of interest e does not s arrive at a ble to accept $1,500,000$ of e number of FDIC insura and/or have existing assets at, one or more of the available banks, the actual amount could be lower."




Refinancing cannot be a threat because there are real barriers to entry to getting the charter and those with the charter don't see it as worth while.




- Student Loans has become the key issues of concerns for 2020 elections
- The 2020 election could help ease investor fears on the winning of candidates with a student forgiveness program, if a candidate, who's not running on student loan forgiveness, win the election
- We would argue that federal level of loan cancellation program is difficult to enact with huge budgetary and fascial implications

- If the government slows student lending, this would provide stronger demand for private lenders. Also, the cutback on University funding would push to tuition higher
- This higher demand and tuition would likely benefit Sallie Mae as the industry leader



Student Loan Bubble
Student Loans Owned and Securitized, Outstanding


- If there are major reforms to student loan default and delinquency regulations, the entire student loan industry could see a major correction
- Such a market correction would greatly reduce Sallie Mae's ability to use Student Loan backed ABS' as collateral to receive the funding to keep operations running

Comprehensive Student Loan Forgiveness Program

## POLITICS

Trump Education Official to Resign and Call for Mass Student-Loan Forgiveness
A. Wayne Johnson, appointed by Education Secretary Betsy DeVos, calls
the student-loan system 'fundamentally broken'

- If the political candidates win election during the 2020 election and implement their policies of comprehensive student loan forgiveness, Sallie Mae could be at risk of having regulations forcing private lenders to take a hair-cut on their positions
- Until more details were available on what this loan forgiveness would look like, it is difficult to predict specific impact such a regulation might have on Salle Mae.




## Valuation

Where to start?


## Valuation

Where to start?

| 2019 EBITDA | $\$ 1,057.2$ |
| :--- | :---: |
| Implied Mrultiple | 8.00 x |
| Implied EV | $\$ 8,457.5$ |
| Discounted EV | $\$ 7,831.0$ |
| (-Debt) | $\$ 3,080.0$ |
| (+Cash) | $\$ 420.0$ |
| Equity Vahe | $\$ 5,171.0$ |
| Shares Outstancling | 94.9 |
| Implied Share Price | $\$ 54.49$ |

We applied a 8.0 x EV/EBITDA multiple. While we believe Hilton rightfully deserves a superior multiple given higher margins, we also believe WYND deserves a slight premium at current valuations

Given this multiple, we achieve a PT of $\$ 54.49$, representing a $30 \%$ upside to current valuation


| Capital Requirements | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019E | 2020E | 2021E | 2022E | 2023E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capital Adequacy |  |  |  |  |  |  |  |  |  |  |  |
| Tier One Capital | 0.0\% | 11.4\% | 12.5\% | 11.8\% | 10.4\% | 11.7\% | 10.0\% | 9.0\% | 8.0\% | 8.0\% | 8.0\% |
| Risk-Weights |  |  |  |  |  | I |  |  |  |  |  |
| Available for Sale Investments | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% |
| Loans Held for Investment | 70.0\% | 70.0\% | 70.0\% | 70.0\% | 70.0\% | 70.0\% | 70.0\% | 70.0\% | 70.0\% | 70.0\% | 70.0\% |
| Other Interest Earning Assets | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% |
| Loan Balance | \$ | \$ 9,510 | \$ 11,631 | \$ 15,138 | \$ 18,568 | \$ 22,271 | \$ 26,141 | \$ 29,046 | \$ 32,676 | \$ 32,676 | \$ 32,676 |
| Tier One Above 6.5\%? | Not OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK |



| Capital Requirements |  | 2013 |  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019E | 2020E | 2021E | 2022E | 2023E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capital Adequacy |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tier One Capital |  | 0.0\% |  | 11.4\% | 12.5\% | 11.8\% | 10.4\% | 11.7\% | 10.0\% | 9.0\% | 8.0\% | 8.0\% | 8.0\% |
| Risk-Weights |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Available for Sale Investments |  | 5.0\% |  | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% |
| Loans Held for Investment |  | 70.0\% |  | 70.0\% | 70.0\% | 70.0\% | 70.0\% | 70.0\%1 | 70.0\% | 70.0\% | 70.0\% | 70.0\% | 70.0\% |
| Other Interest Earning Assets |  | 5.0\% |  | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% | 5.0\% |
| Loan Balance | \$ | - | \$ | 9,510 | \$ 11,631 | \$ 15,138 | \$ 18,568 | \$ 22,271 | \$ 26,141 | \$ 29,046 | \$ 32,676 | \$ 32,676 | \$ 32,676 |
| Tier One Above 6.5\%? |  | Not OK |  | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK |
| Sallie Mae Balance Sheet |  | 2013 |  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019E | 2020E | 2021E | 2022E | 2023E |
| Liabilities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deposits | \$ | 9,002 |  | 0,541 | \$ 11,488 | \$ 13,436 | \$ 15,505 | \$ 18,943 | \$ 20,837 | \$ 22,921 | \$ 24,067 | \$ 24,549 | \$ 25,040 |
| Growth |  | - |  | 17.1\% | 9.0\% | 17.0\% | 15.4\% | 22.2\% | 10.0\% | 10.0\% | 5.0\% | 2.0\% | 2.0\% |
| YoY Delta |  | - |  | 1,539 | 947 | 1,948 | 2,070 | 3,438 | 1,894 | 2,084 | 1,146 | 481 | 491 |
| Long-term borrowings |  | - |  | - | 1,079 | 2,168 | 3,275 | 4,284 I | 5,141 | 5,655 | 5,938 | 6,057 | 6,178 |
| Growth |  | - |  | - | - | 100.9\% | 51.1\% | 30.8\% | 20.0\% | 10.0\% | 5.0\% | 2.0\% | 2.0\% |
| YoY Delta |  | - |  | - | 1,079 | 1,089 | 1,107 | 1,009 | 857 | 514 | 283 | 119 | 121 |
| Income taxes payable, net |  | 162 |  | 191 | 167 | 184 | 102 | - I | - | - | - | - | - |
| Upromise member accounts |  | 308 |  | 293 | 275 | 256 | 243 | 213 | 213 | 213 | 213 | 213 | 213 |
| Other liabilities |  | 69 |  | 117 | 109 | 142 | 179 | 225 | 225 | 225 | 225 | 225 | 225 |
| Total liabilities | \$ | 9,541 |  | 1,142 | \$ 13,118 | \$ 16,186 | \$ 19,305 | \$ 23,666 | \$ 26,417 | \$ 29,015 | \$ 30,443 | \$ 31,043 | \$ 31,656 |

Need to start with balance sheet when modelling out a lending institution


## Valuation

Where to start? Use liabilities to project out assets and NI

| Sallie Mae Balance Sheet | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019E | 2020E | 2021E | 2022E | 2023E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |  |  |  |  |  |  |  |
| Cash | \$ 2,183 | \$ 2,360 | \$ 2,416 | \$ 1,919 | \$ 1,534 | \$ 2,559 I | 1,808 | 1,819 | 29 | 1,034 | 2,089 |
| Available for Sale Investments | 102 | 169 | 195 | 209 | 244 | 176 | 176 | 176 | 176 | 176 | 176 |
| Loans Held for Investment | 7,931 | 9,510 | 11,631 | 15,138 | 18,568 | 22,271 | 26,141 | 29,046 | 32,676 | 32,676 | 32,676 |
| Loss Allowance | 84 | 68 | 113 | 185 | 251 | 341 | 341 | 341 | 341 | 341 | 341 |
| Loss Allowance \% of Loans | 1.1\% | 0.7\% | 1.0\% | 1.2\% | 1.4\% | 1.5\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% |
| YoY Delta | - | 1,578 | 2,121 | 3,507 | 3,430 | 3,703 I | 3,870 | 2,905 | 3,631 | - | - |
| Total Assets | \$ 10,707 | \$ 12,972 | \$ 15,214 | \$ 18,533 | \$ 21,780 | \$ 26,638 | \$ 29,757 | \$ 32,672 | \$ 34,514 | \$ 35,518 | \$ 36,574 |



## Where to start? Use liabilities to project out assets and NI



## Valuation

This is all assuming there's no equity raises
Lots Make College Happen



## Valuation

This is all assuming there's no equity raises
Lot's Make College Happen-


## Yes, it needs to balance

| Sallie Mae Balance Sheet | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019E | 2020E | 2021E | 2022E | 2023E |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Total Assets | $\$ 10,707$ | $\$ 12,972$ | $\$ 15,214$ | $\$ 18,533$ | $\$ 21,780$ | $\$ 26,638$ | $\$ 29,757$ | $\$ 32,672$ | $\$ 34,514$ | $\$ 35,518$ | $\$ 36,574$ |  |  |  |
| Total liabilities and equity | $\$ 10,707$ | $\$ 12,972$ | $\$ 15,214$ | $\$ 18,533$ | $\$ 21,780$ | $\$ 26,638$ | $\$ 29,757$ | $\$ 32,672$ | $\$ 34,514$ | $\$ 35,518$ | $\$ 36,574$ |  |  |  |
| Check | $\$$ | - | $\$$ | - | $\$$ | - | $\$$ | - | $\$$ | - | $\$$ | - | $\$$ | - |



| Net Income |  | 74 |  | 131 |  | 158 |  | 295 |  | 168 |  | 495 |  | 613 |  | 529 |  | 688 |  | 673 |  | 739 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Payout Ratio |  | . $\%$ |  | 40.0\% |  | 40.0\% |  | 40.0\% |  | 40.0\% |  | 40.0\% |  | 40.0\% |  | 40.0\% |  | 40.0\% |  | 40.0\% |  | 40.0\% |
| Return to Shareholder | \$ | 30 | \$ | 52 | \$ | 63 | \$ | 118 | \$ | 67 | \$ | 198 | \$ | 245 | \$ | 212 | \$ | 275 | \$ | 269 | \$ | 296 |


| Sallie Mae Valuation | 2013 |  | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | 2019E |  | 2020E |  | 2021E |  | 2022E |  | 2023E |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FCFE | \$ | 30 | \$ | 52 | \$ | 63 | \$ | 118 | \$ | 67 | \$ | 198 | \$ | 245 | \$ | 212 | \$ | 275 | \$ | 269 | \$ | 296 |
| Growth |  |  |  |  |  |  |  |  |  |  |  |  |  | 23.8\% |  | -13.7\% |  | 30.1\% |  | -2.1\% |  | 9.7\% |
| Discount Rate |  |  |  |  |  |  |  |  |  |  |  |  |  | 7.5\% |  | 7.5\% |  | 7.5\% |  | 7.5\% |  | 7.5\% |
| Discounted Value |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 228 | \$ | \$ 183 | \$ | 222 | \$ | 202 | \$ | 206 |


|  |  | Cost of Equity |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6.0\% | 6.5\% | 7.0\% | 7.5\% | 8.0\% | 8.5\% | 9.0\% |
|  | 0.5\% | 32.2\% | 23.6\% | 16.3\% | 10.0\% | 4.6\% | -0.1\% | -4.3\% |
|  | 1.0\% | 42.5\% | 32.2\% | 23.6\% | 16.3\% | 10.0\% | 4.6\% | -0.1\% |
| 3 | 1.5\% | 55.2\% | 42.5\% | 32.2\% | 23.6\% | 16.3\% | 10.0\% | 4.6\% |
| - | 2.0\% | 71.0\% | 55.2\% | 42.5\% | 32.2\% | 23.6\% | 16.3\% | 10.0\% |
| 을 | 2.5\% | 91.3\% | 71.0\% | 55.2\% | 42.5\% | 32.2\% | 23.6\% | 16.3\% |
| a | 3.0\% | 118.4\% | 91.3\% | 71.0\% | 55.2\% | 42.5\% | 32.2\% | 23.6\% |
|  | 3.5\% | 156.3\% | 118.4\% | 91.3\% | 71.0\% | 55.2\% | 42.5\% | 32.2\% |


| Perpetuity |  |  |
| :--- | ---: | ---: |
| Terminal FCFE | $\$$ | 206 |
| Perpetuity Growth |  | $2.0 \%$ |
| Cost of Capital |  | $7.5 \%$ |
| Perpetuity Value | $\$$ | 3,743 |
| Cumulative CF | $\$$ | 1,040 |
| Shares (000s) |  | 436 |
| Per Share Value | $\$ 10.97$ |  |
| Current Share Price | $\$ 8.30$ |  |
| Upside | $\mathbf{3 2 . 2 \%}$ |  |




