data amplified
2016 | the future of business reporting

SINGAPORE
8-10 NOVEMBER
2016

The Use of Social Media in Traditional Credit Risk Analysis with XBRL

SPEAKER:

Wei Zhao

Seatig Inc.

Introduction – Seatig Inc.

- Seatig Inc. is a software technology and consulting firm for Wall Street companies
- Financial/accounting application consulting and development for companies in other industries

Introduction – How we are involved with XBRL

- FinTech applications
  - Social media data used in calculation of credit risk and credit scores
- Chinese mega manufacturing enterprises
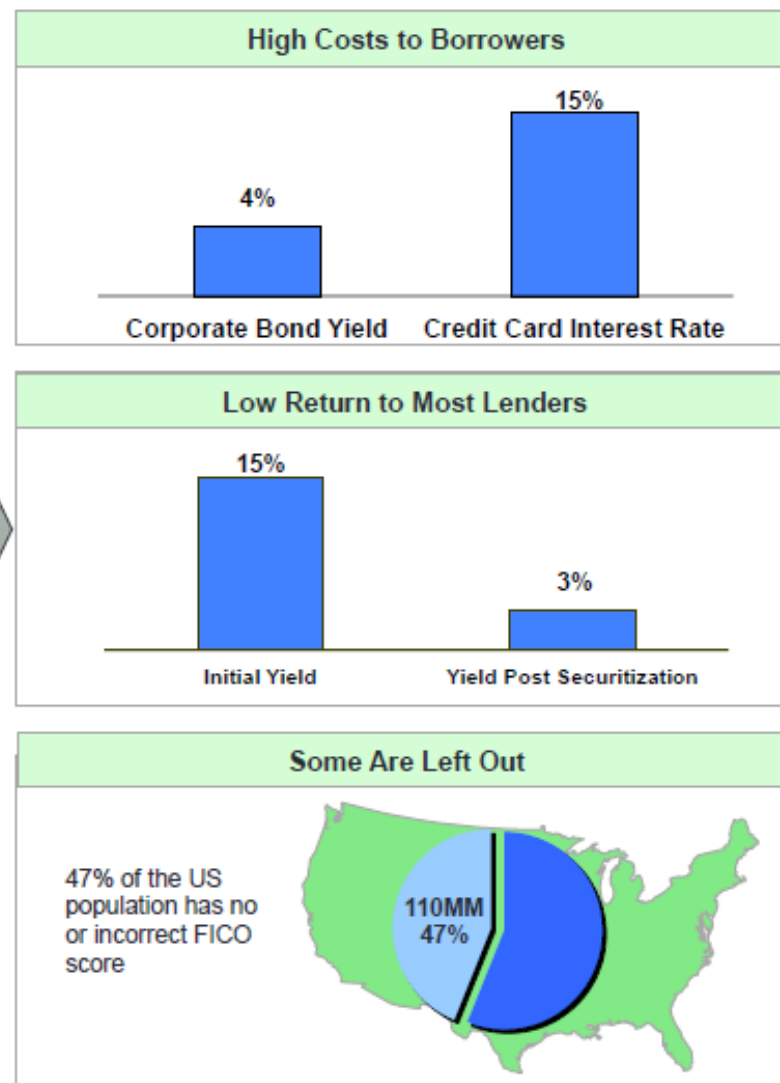 - Corporate data aggregation/reporting/exchange

Consumer Credit Scores

- 3 Credit reporting bureaus
  - Experian®, Equifax®, and TransUnion®
- One algorithm company
  - FICO® Scores are developed by Fair Isaac Corporation
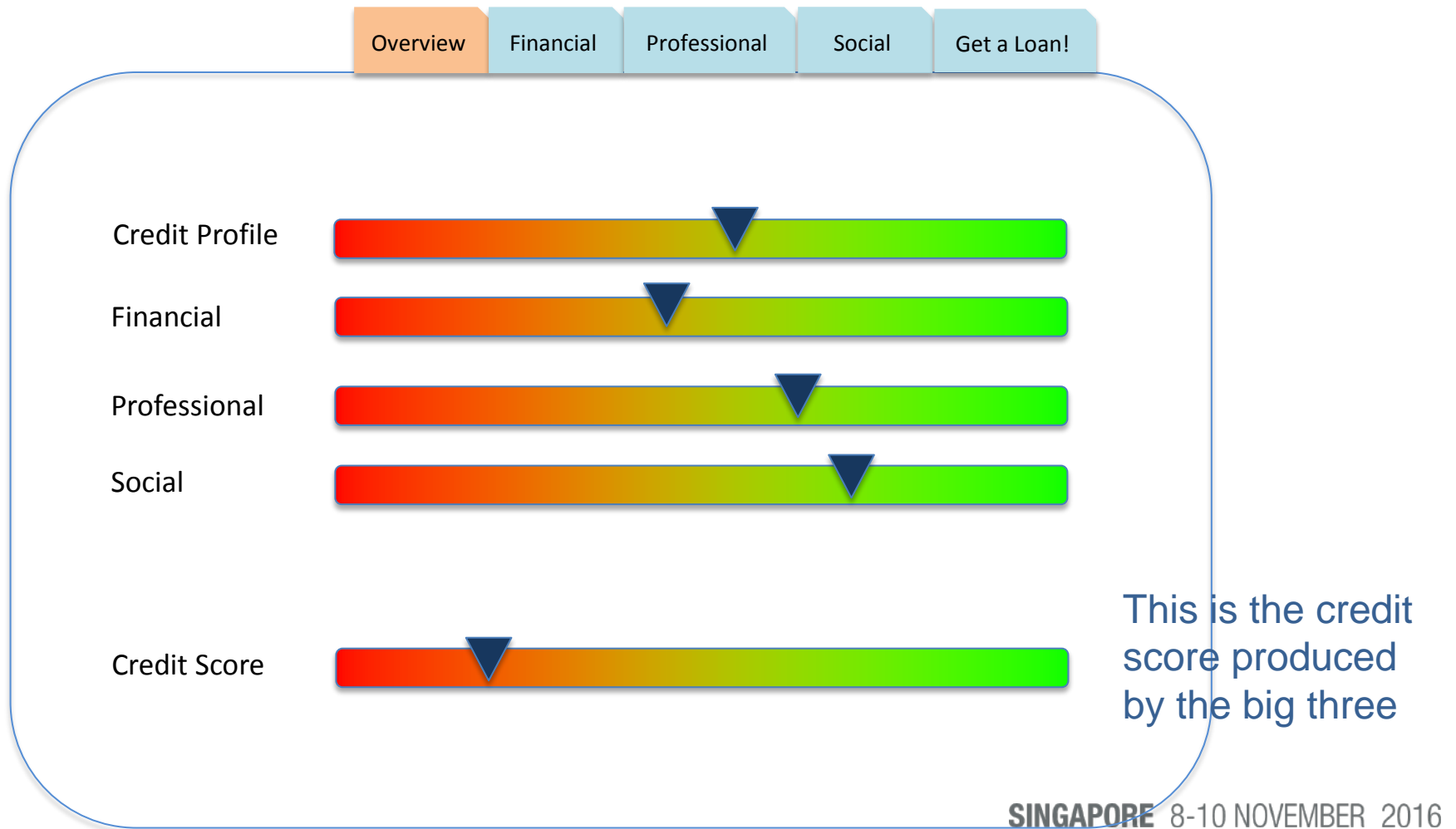 - Little improvement for 30 years

Problems for traditional credit reporting

Current Consumer Credit Reporting

1. Incomplete Assessment
2. Inaccurate Data
3. Opaque Model
4. No Borrower Interaction

High Costs to Borrowers

- Corporate Bond Yield: 4%
- Credit Card Interest Rate: 15%

Low Return to Most Lenders

- Initial Yield: 15%
- Yield Post Securitization: 3%

Some Are Left Out

47% of the US population has no or incorrect FICO score

110MM 47%

The new credit score calculation

| Overview | Financial | Professional | Social | Get a Loan! |

Credit Profile

Financial

Professional

Social

Credit Score

This is the credit score produced by the big three

The new credit score calculation

The new credit score calculation

Please help us know more about you

2 — Professional — 3

LinkedIn Connect

🔒 We don't store passwords.

We get the following:
• Education
• Work History
• LinkedIn Contacts

SKIP

| Overview | Financial | Professional | Social | Get a Loan! |

Professional

Employment Status	Self-Employed
Profession	Accountant
Industry	Banking
Years of Experience	15
Skills	High/Med/Low
Education	College

The new credit score calculation

Please help us know more about you

3 Financial

Choose your bank

AMERICAN EXPRESS   Bank of America   CHASE

citi   usbank   USAA   WELLS FARGO

Don't see your bank here?
Request bank

SKIP

| Overview | Financial | Professional | Social | Get a Loan! |

Financial

Balance Sheet/Net Worth Composition Graph

Balance Sheet/Net Worth Growth Graph

Income/Spending Trend Graph

The new credit score calculation

Overview | Financial | Professional | Social | Get a Loan!

I want a [Type of credit] of [Amount] for [# years] to [Purpose] .

Submit

I have the following choices

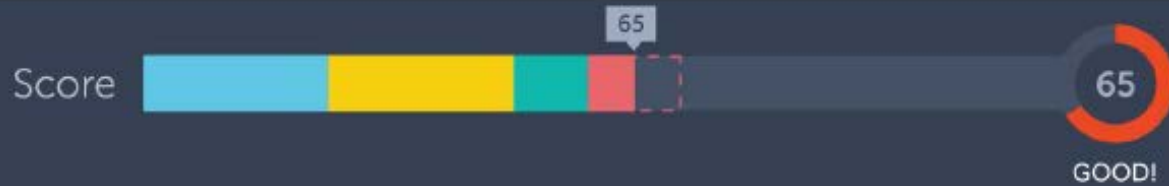|		Amount	Rate	Term	Bank Name	
○	1					Get it!
○	2					Get it!
○	3					Get it!
○	4					Get it!
○	5					Get it!

The new credit score calculation

	Establishment	Happy Mango
Inputs	1. Delinquencies 2. Inquiries 3. Usage 4. Length of History 5. Bankruptcies	1. Financial 2. Professional 3. Endorsement
Collection	Hundreds of Disparate Sources to match with the individual	On-line private and public sources funneled through each individual
Analytics	Group Level Statistics	Direct & Individualized
Output	Likelihood to pay	Ability to Pay Reliability to Pay

The Architecture
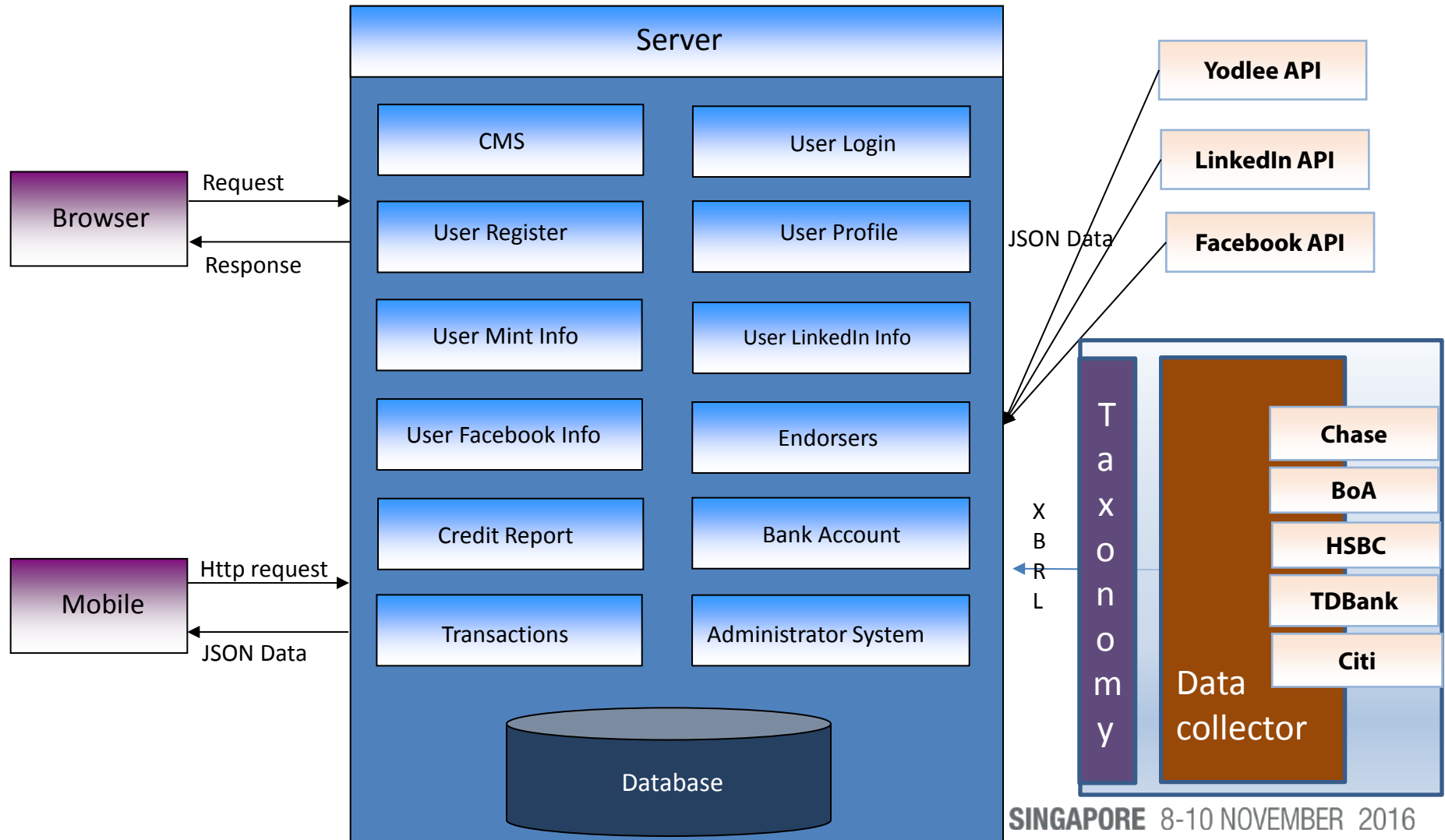
Browser → Request → **Server**

Browser ← Response

Server

CMS	User Login
User Register	User Profile
User Mint Info	User LinkedIn Info
User Facebook Info	Endorsers
Credit Report	Bank Account
Transactions	Administrator System

Database

Mobile → Http request

Mobile ← JSON Data

Yodlee API

LinkedIn API

Facebook API

JSON Data

Taxonomy

Data collector

XBRL

Chase

BoA

HSBC

TDBank

Citi

SINGAPORE 8-10 NOVEMBER 2016
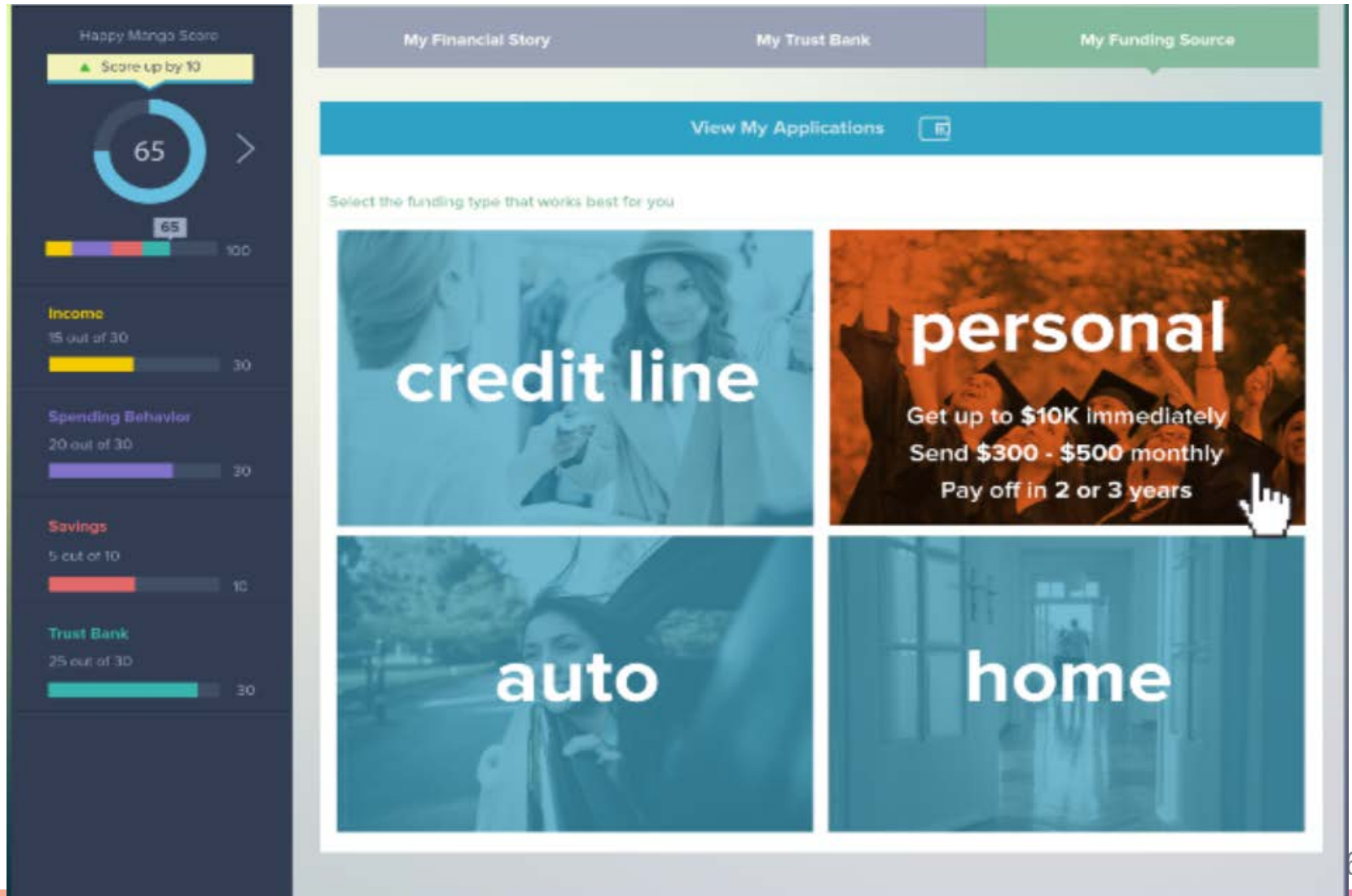
Data samples

Data samples

Data samples

Data samples

Cash
Checking Account 1
Checking Account 2
Savings Account 1
Savings Account 2

Liquid Financial Investments
Investment Account 1
Investment Account 2

Illiquid Financial Investments
401K
Roth IRA
Equity Investment
Loans

Non-Financial Assets
Home
Auto
Misc. Home Assets

Total Assets

Unsecured Loans
Credit Card 1
Credit Card 2
Credit Card 3
Student Loan
Medical Loans
Other Unsecured Loans

Secured Loans
Securities Margin Loan
Mortgage Balance Outstanding
Car Loan Outstanding
Other Secured Loans

Contingent Loans
Employer Loan
Other Contingent Loans

Total Liabilities

Data samples

Home
Auto
Financial
Other

Total Equity

Individual Cash Flow Statement

Cash Inflow
Salary
Investment Income
Other Sources of Income

Total Cash Inflow

Cash Outflow
Mortgage
Car Loan
Student Loan
Reoccuring Spending
Discretionary Spending

Total Cash Outflow

Net Cash

Ratio Calculation

	Liquid Asset / Monthly Expenditure
80%	Liquid Asset & Financial Assets / Monthly Expendi
	Liquid Assets / Total Debt
80%	Liquid Asset & Financial Assets / Total Debt
	Liquid Assets / Unsecured debt
	Liquid Assets / Net Worth
80%	Liquid Assets & Financial Assets / Net Worth
	Liquid Assets / Net Worth
80%	Liquid Assets & Financial Assets / Net Worth
	Debt / Net Worth
	Non-Mortgage Debt / Net Worth
	Monthly Earnings / Fixed Expenditure
	Liquid Assets & Financial Investments / Earnings
	Debt / Earnings
	Saving Rate / Earnings