Discussion of "Have Big Banks Become Safer" by Natasha Sarin and Larry Summers

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Motivation

- Significant changes in regulations post-crisis
    - more equity, multiple metrics, stress tests, systemic risk, SIFIs. [Ingves(2015)]
- The Sarin-Summer puzzle: Market-based measures of risk have not declined.

US Aggregate SRISK

Source: Vlab, based on
[Acharya et al.(2009)Acharya, Pedersen, Philippon, and Richardson]

MVE

- Key point is market value of equity

Large US Banks	Pre-Crisis	2015
Price to Book	2.11	0.90
MVE / A	0.13	0.10
P/B (France)	1.44	0.73

Citigroup, MVE / A

Model

- Let π be probability of disaster

$$V_t = NI_t + \frac{(1-\pi)\,V_{t+1} + \pi V^D_{t+1}}{1+r}$$

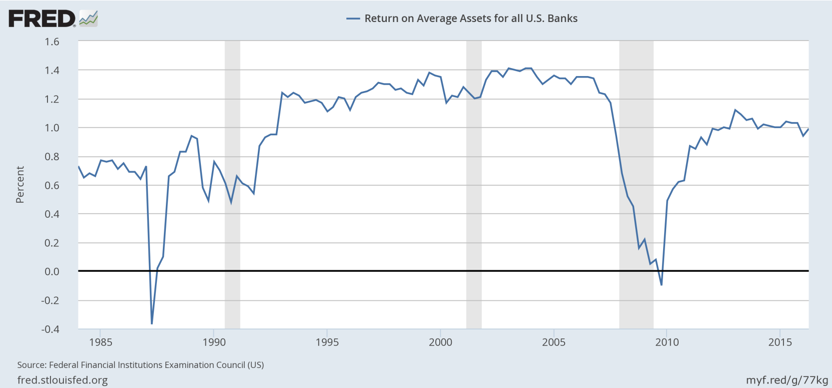
- Scale by assets A_t growing at rate g, assume constant ROA, and define $v \equiv V_t/A_t$

$$v = roa + \frac{1+g}{1+r}\left((1-\pi)\,v + \pi d\right)$$

- Therefore MVE/A is

$$v = \frac{roa + \frac{1+g}{1+r}\pi d}{1-(1-\pi)\,\frac{1+g}{1+r}}$$

ROA ≈1%


FRED
Return on Average Assets for all U.S. Banks
Percent
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
1985
1990
1995
2000
2005
2010
2015
Source: Federal Financial Institutions Examination Council (US)
fred.stlouisfed.org
myf.red/g/77kg

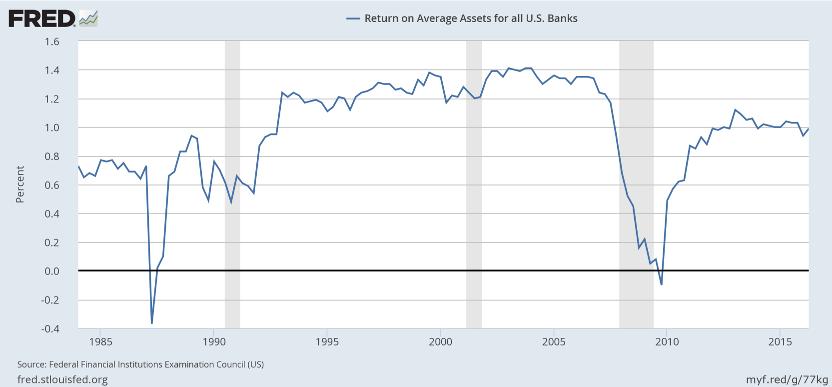
Impact of Risk on Valuation

- Back-of-the-envelope, $d = 0$, $roa = .01$

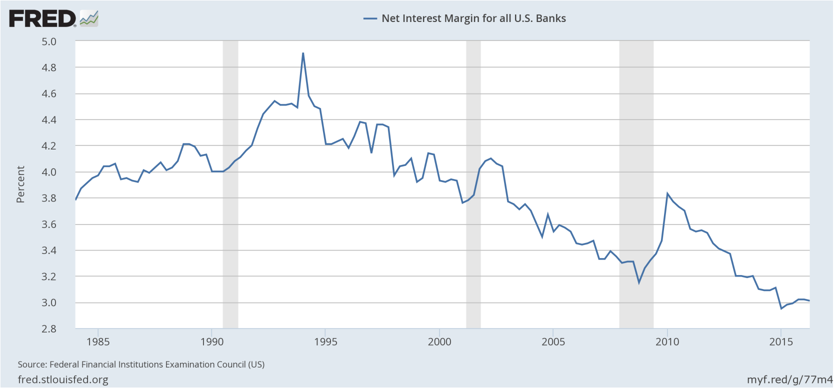
	Pre-Crisis	2015
actual MVE / A	0.13	0.10
π	0.32%	0.94%
predicted MVE / A	0.13	0.12

- Risk can easily account for 1/3 of valuation
- Based on disaster risk, unrelated to predictability of net income in normal times

ROA has declined



Partly because of NIM



Impact of ROA on Valuation

- Back-of-the-envelope, $d = 0$

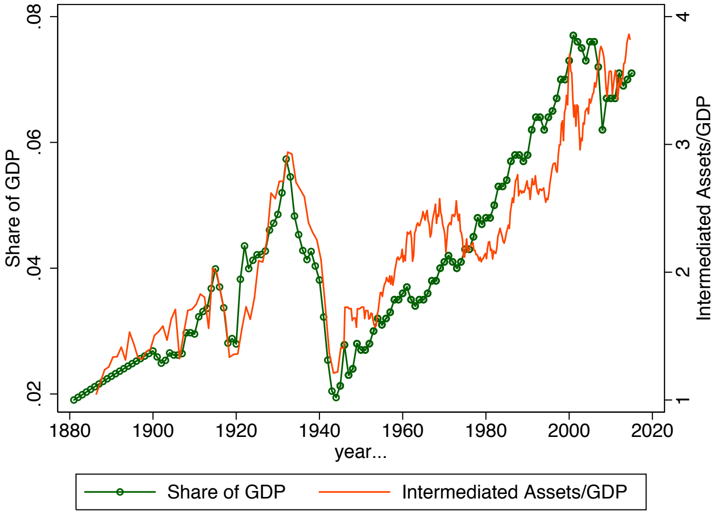
	Pre-Crisis	2015
actual MVE / A	0.13	0.10
roa	1.2%	1%
predicted MVE / A	0.13	0.11

- ROA can account for 2/3 of decline in valuation

Why is ROA lower?

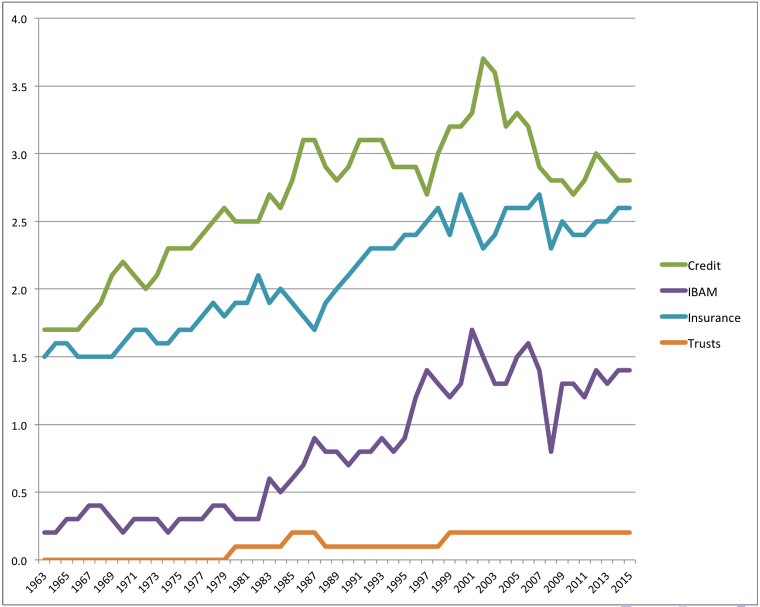
- Low interest rate –> franchise value of core deposits lower
- Low credit demand
- Risk vs ROA? How did banks make so much money during the boom?
  - When everyone underestimates π (real estate), we have standard mispricing.
  - But if some underestimate more than others? When Dusseldorf believes the Wall Street knows what it's doing, willing to clear the market for credit junk –> Supply chain of profitable credit products –> ROA increases
  - So repricing of risk could also explain drop in ROA, at least in theory
- Then there is non bank competition (fintech, etc.)
- Then, there is regulation

Finance is not really shrinking



Source: [Philippon(2015)]

But banking is, relatively



Regulations to blame?

- Post crisis idea: move away from banking towards AM
  - But why need a bank then? See MS's recent departures.
- Dealer inventories are down. Large trades harder to make.

Dealer Inventory Much Lower

Source: New York Federal Reserve, Haver Analytics. As of Dec. 31, 2015. Prior to April 2013, the primary dealer corporate bond positions data included non-agency RMBS and CMBS.

Regulations to blame?

- Post crisis idea: move away from banking towards AM
  - But why need a bank then? See MS's recent departures.
- Dealer inventories are down. Large trades harder to make.
  - Regulatory collateral damage? MM in bonds not a very risky business. Why shrink it? Collateral effect of leverage ratio?
  - Or is it just HFT competition?

Conclusion

- Repricing of risk a big part of the story
  - lower valuation
  - exit some lines of business
- Important to further decompose
  - macro factors (low rates, end of secular credit cycle)
  - regulatory collateral damage

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Measuring systemic risk.
Working Paper NYU, 2009.

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