

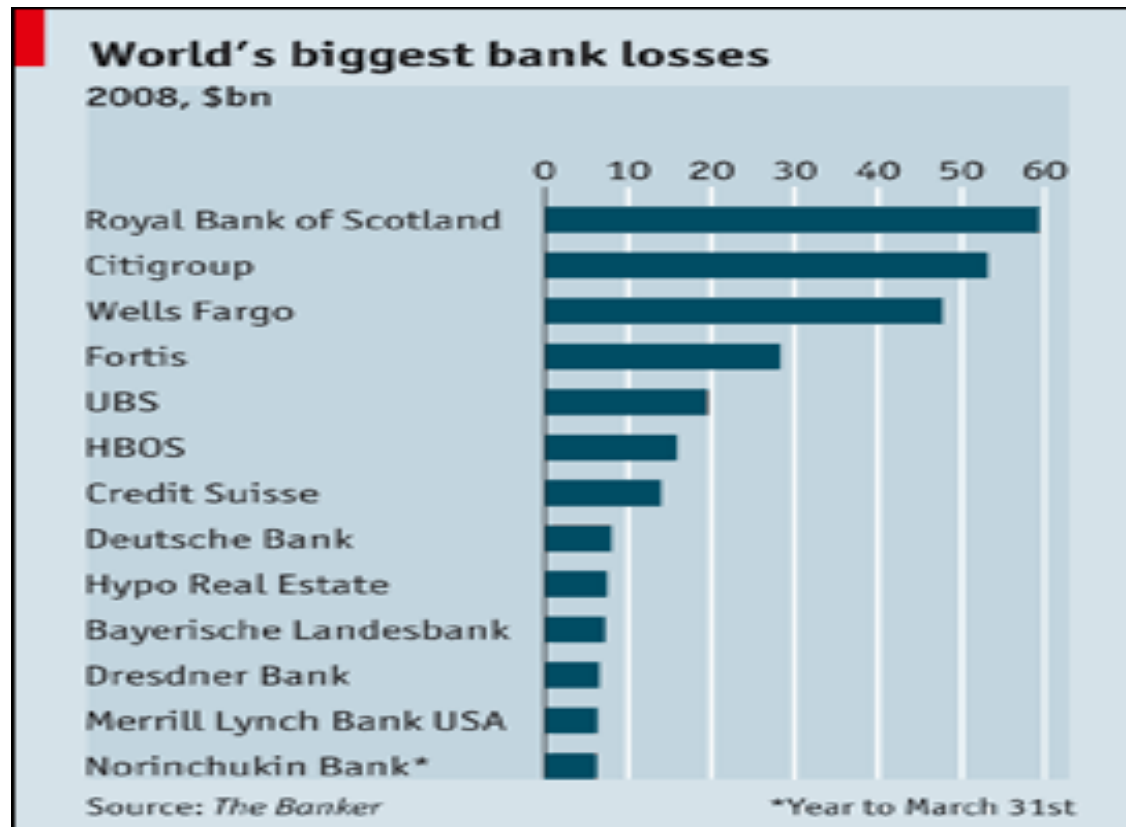
The Common Equity Problem in Bank Regulation

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Motivation

- Banking regulation has been subject to enormous transformation since the 2008-Financial Crisis.
- Now well known, banks suffered catastrophic losses in 2008-2010 and regulators around the world responded with a slew of measures.
- Through the Basel Committee on Banking Regulation and Basel III, regulators have sought to (i) increase capital buffers with much more equity; (ii) ensure greater liquid reserves; and (iii) eliminate too-big-to-fail through orderly liquidation procedures.
- The Dodd-Frank Act implements this consensus by ramping up required capital buffers and liquidity reserves, mandating stress tests and introducing Title II's OLA.



Source, Economist, World's Biggest Bank Losses, June 25 2009

U.S. Banks and Write-Downs

- A number of banks saw massive write-downs during the Crisis and sharp falls in the value of their equity:

Source: Bloomberg

Bank	Credit Losses & Write-Downs (Billions) (Jun 2007-March 2010)	Equity Return (June 2007-Dec2008)
Citigroup	130.4	-82.46%
Wachovia	101.9	-88.34%
Bank of America	97.6	-67.79%
JP Morgan	69.0	-31.51%
Merrill Lynch	55.9	-85.16%
Wells Fargo	47.4	-10.77%

U.S. Bank Capital Buffers Pre-Crisis

- Most U.S. banks were regarded as well-capitalized prior to the Crisis and had capital buffers much in excess of Basel's 8% ratio of capital to risk-weighted assets.
- The Top-20 U.S. banks averaged an average capital ratio of 11.6%.
- Post-Crisis criticisms argue that the quality of bank capital was sub-optimal: did not include enough Tier 1 Equity: pure capital to absorb bank losses and assist resolution.
- U.S. banks had taken on exposures that were too complex and large to be sustained by their levels of capital.

Turn to Equity Post-Crisis

- The post-Crisis consensus has seen a marked turn to common equity as the protective bulwark against crippling losses and too-big-to-fail.
- Equity offers blunt and ready protection against generalized risks that can affect a bank. Scholars like Admati and Helwig have proposed equity buffers of around 20% of RWA.

Capital Requirements Basel III/Federal Reserve	% Equity Buffer
Common Equity Tier 1	4.5% (4.5% + 1.5% Tier 1)
CET Countercyclical Capital Buffer	0-2.5%
CET Capital Conservation Buffer	Greater than 2.5%
CET G-SIB Surcharge (U.S. version)	1-4.5%

Who Supplies the Equity?

- U.S. capital markets have undergone deep institutionalization since the 1960s-70s.
- Rather than investing individually, U.S. homes and businesses instead invest through funds and asset managers like BlackRock, Vanguard, Fidelity or State Street.
- These firms have evolved to become the largest pools of capital. Funds run by these firms invest money for homes, businesses and financial firms across U.S. capital markets.
- They are also extremely powerful shareholders in corporate governance.

Key Asset Managers

- BlackRock is the biggest shareholder in the world. It manages around \$4.9 trillion dollars in assets – more than all hedge funds and PE funds put together.
- Vanguard manages \$3.5 trillion in assets globally and Fidelity around \$2.06 trillion.
- BlackRock reportedly has investments in almost all listed companies in the U.S., and indeed has an enormous footprint around the globe.
- BlackRock also runs Aladdin, an operating system that helps direct around \$11 trillion worth of investments based on its risk analytics.

Common Ownership

- Antitrust economists have pointed to a rise in pervasive “common ownership” in U.S. capital markets.
- Common ownership or “horizontal shareholding” (Elhauge) describes the phenomenon of a small number of shareholders occupying blockholder positions in different companies in the same industry.
- For these economists, the rise of common ownership, becoming entrenched since the gradual institutionalization of the market points to higher costs, less competitive service.
- Banking is singled out as industry where common ownership is dominant.

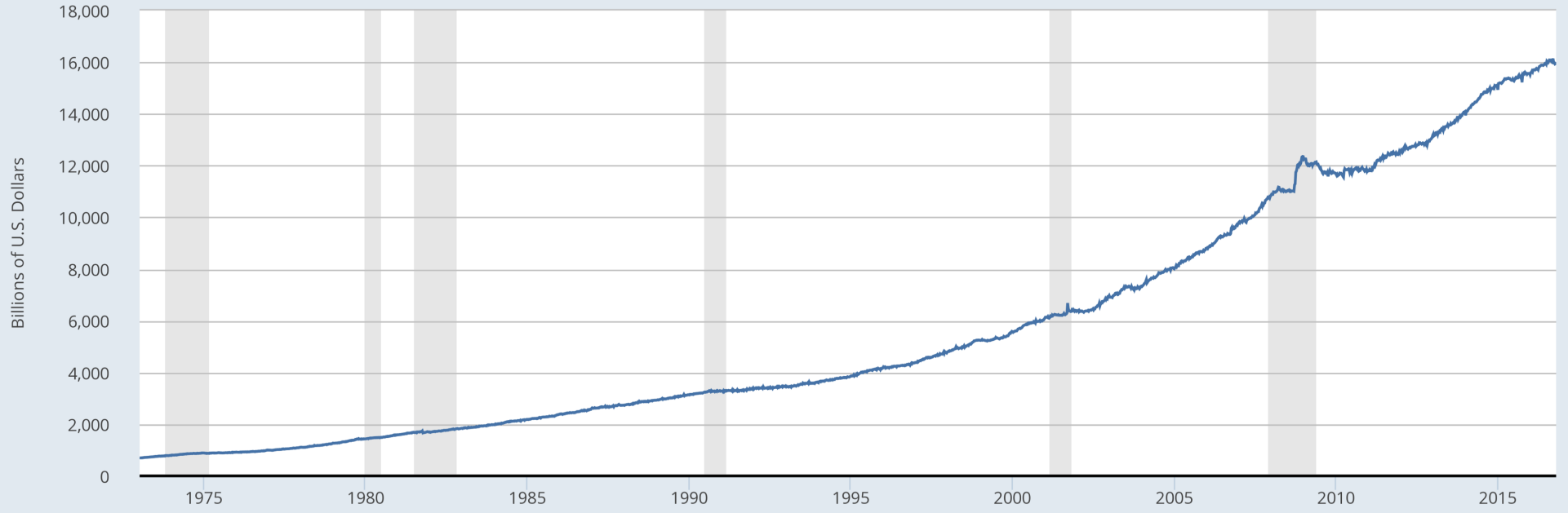
Survey Results

- I looked at the largest publically traded U.S. banks to examine their major providers of equity capital. I excluded banks whose head office is located outside U.S.
- Out of the 25 banks examined, 22 included both Vanguard funds and BlackRock funds as holders of more than 5% of their common equity.
- Vanguard and BlackRock were also holders of more than 5% equity in the holding companies of financial infrastructure providers: ICE, NASDAQ, CME and CBOE Holdings.
- State Street held over 5% equity in eight bank holding companies; Fidelity in 7 bank holding companies; Berkshire Hathaway and T. Rowe Price in four companies.

Rationale

- This makes sense. U.S. banks have been hungry for equity capital since 2007-8. They have raised over \$400 billion dollars worth in equity capital.
- These large equity managers represent the deepest and most abundant pools of capital in the economy.
- Investing in BHOs might be said to represent a strategy to garner exposure to a swath of the broader economy through bank lending decisions.
- In the last quarters, bank revenue has performed well, with large profits reported. Though, by and large, banking has been volatile and unprofitable since 2010.

— Total Assets, All Commercial Banks



Source: Board of Governors of the Federal Reserve System (US)
fred.stlouisfed.org

myf.red/g/88D6

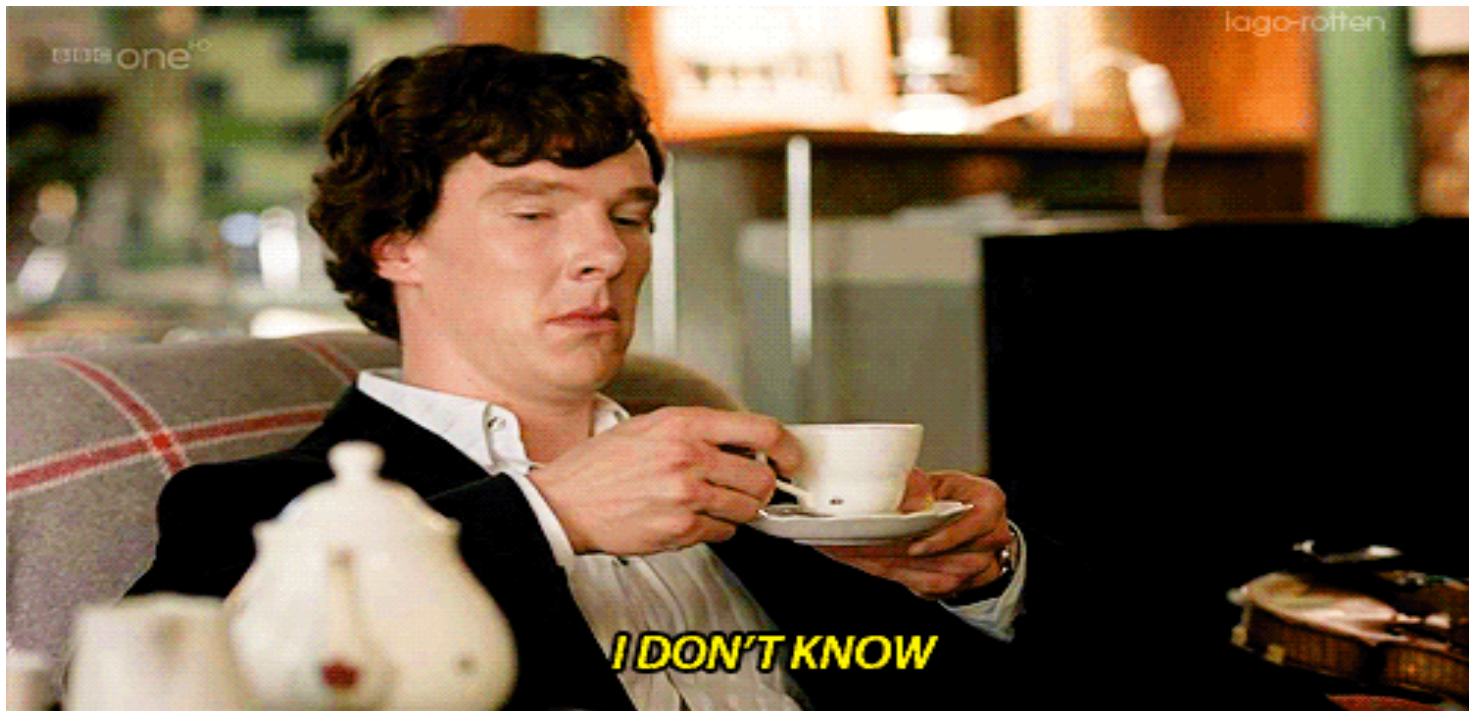
Risks – Ex Ante

- The dominance of common owners as big blockholders in the vast majority of large, systemically important banks poses risks:
 - On the one hand, they may have information advantages by dint of common ownership across banking. However, bank information is notoriously opaque. Short-term creditors are generally information-insensitive.
 - Errors in interpreting this information may be compounded across the banking industry. Will shareholders factor in the macroprudential component into understanding risks?
 - Fund managers are well known for being passive investors – and activism in banking is difficult and expensive.
 - Will this create incentives to give a wide berth to managers? Is there a danger that, the lower the value of the bank franchise, the more pervasive the incentive to risks at creditor expense (e.g. correlation seeking, Richard Squire) (Dividends, Acharya).
 - Co-ordinated action possible?

Risks Ex-Post

- The goal of the DFA and post-Crisis rulemaking has been to get rid of the TBTF problem.
- However, the pervasive appearance of large blockholders creates deep links between the real economy.
- The loss of equity capital in the event of a bank collapse is likely to make a dent in the value of funds representing accumulated retail and corporate savings. The exercise of the OLA will similarly eliminate equity value in the event a bank fails.
- The losses may be especially massive if panics create macro-prudentially wide impact, extending to market infrastructure.
- Are bailouts inevitable if equity is likely to be especially hard-hit?

Solutions



Some Ideas

- Corporate governance duties for shareholders (see, David Min's awesome paper!)
- A greater focus by FSOC or the Fed to push shareholders to be more effective guardians of the capital they supply.
- Should large blockholders set aside some capital themselves to bolster the value of their funds in the event of a banking collapse. This would reduce returns yet further.
- Create a priority mechanism within CET 1 equity pool, potentially imposing losses on investors placing their own capital at risk, versus asset managers investing household capital. Is this workable? Violates equal treatment?