Refining Stress Tests

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Item #1:
Testing for “X” when you care about “Y”

- The goal of stress tests is to identify banks that will be able to …

  > “The Federal Reserve expects these BHCs to have sufficient capital to withstand a severely adverse operating environment and be able to continue operations, maintain ready access to funding, meet obligations to creditors and counterparties, and serve as credit intermediaries.”

- Sometimes, self-reported loan loss accounting has been suspect.
- Stress tests seem to address this well: ***“X”***.

An alternative way to value a bank:

Equity's <u>market</u> value (= ***<u>"Y"</u>***)

MVEQ = PV of net cash flows from

- Assets in place – focus of stress test.
- Future growth – absent from stress test.

Market value includes an assessment of continued solvency.

- Right or wrong, that assessment affects a firm's market value.

- Continuing customer service requires adequate MARKET valued capital.

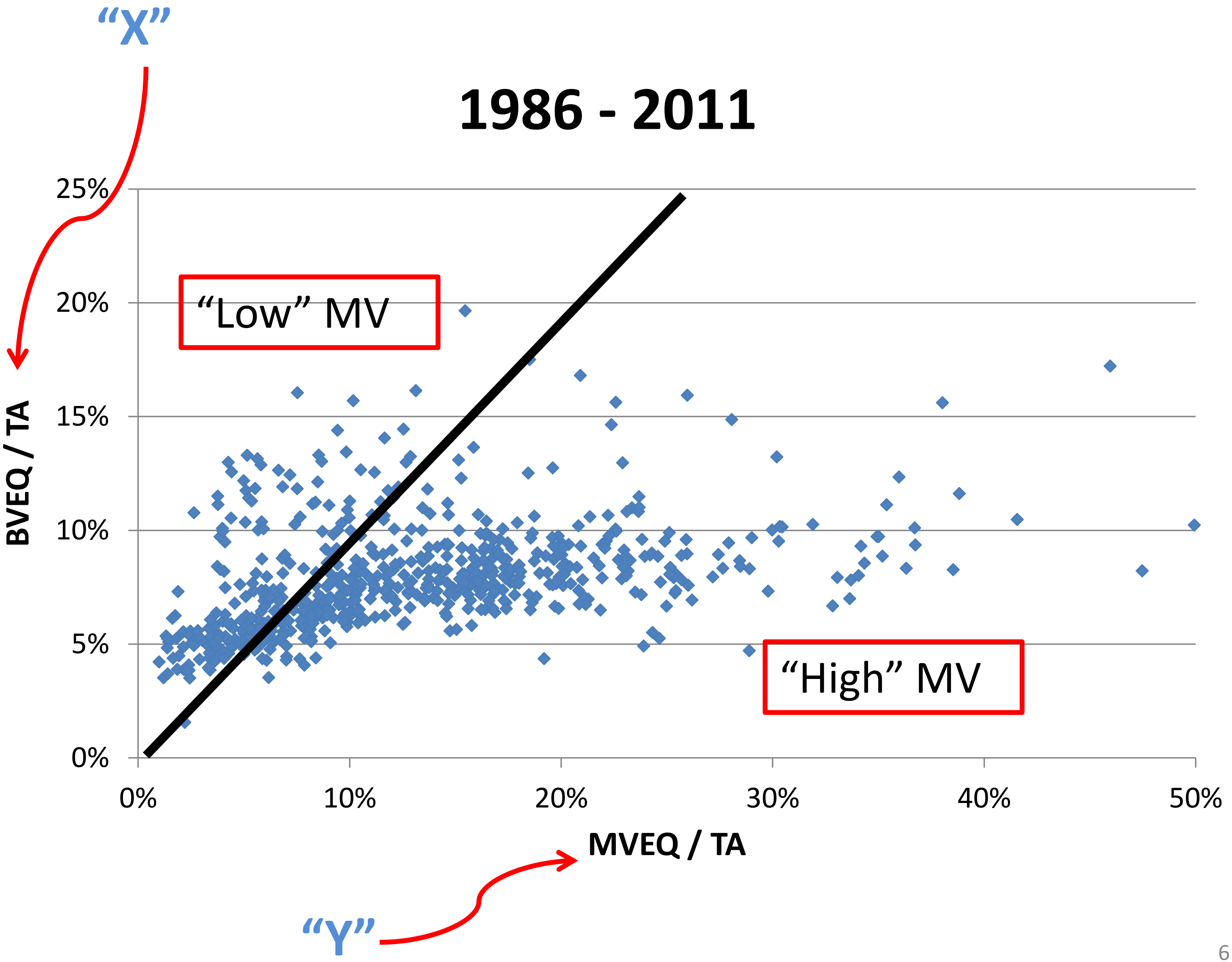
- “Adequate” BOOK value may not suffice.

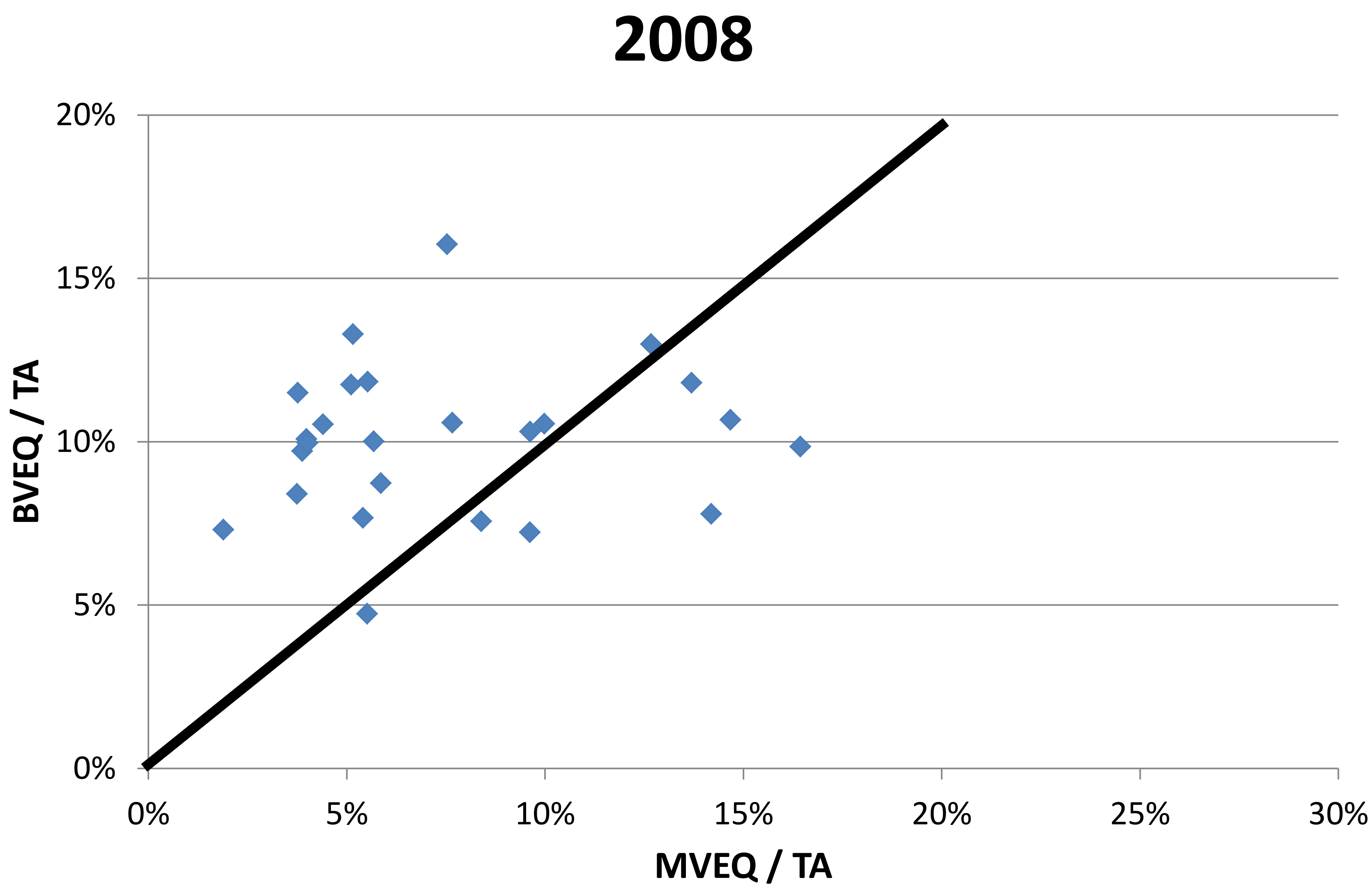
Caveat: does passing a stress test entitle the BHC to DW access? If so, depositor runs pose a much smaller threat.

Book vs. Market: Historical Relations

- Largest 25 U.S. BHC at each yearend
- 1986-2011
- Compute accounting vs. market measures of equity value, relative to total assets.

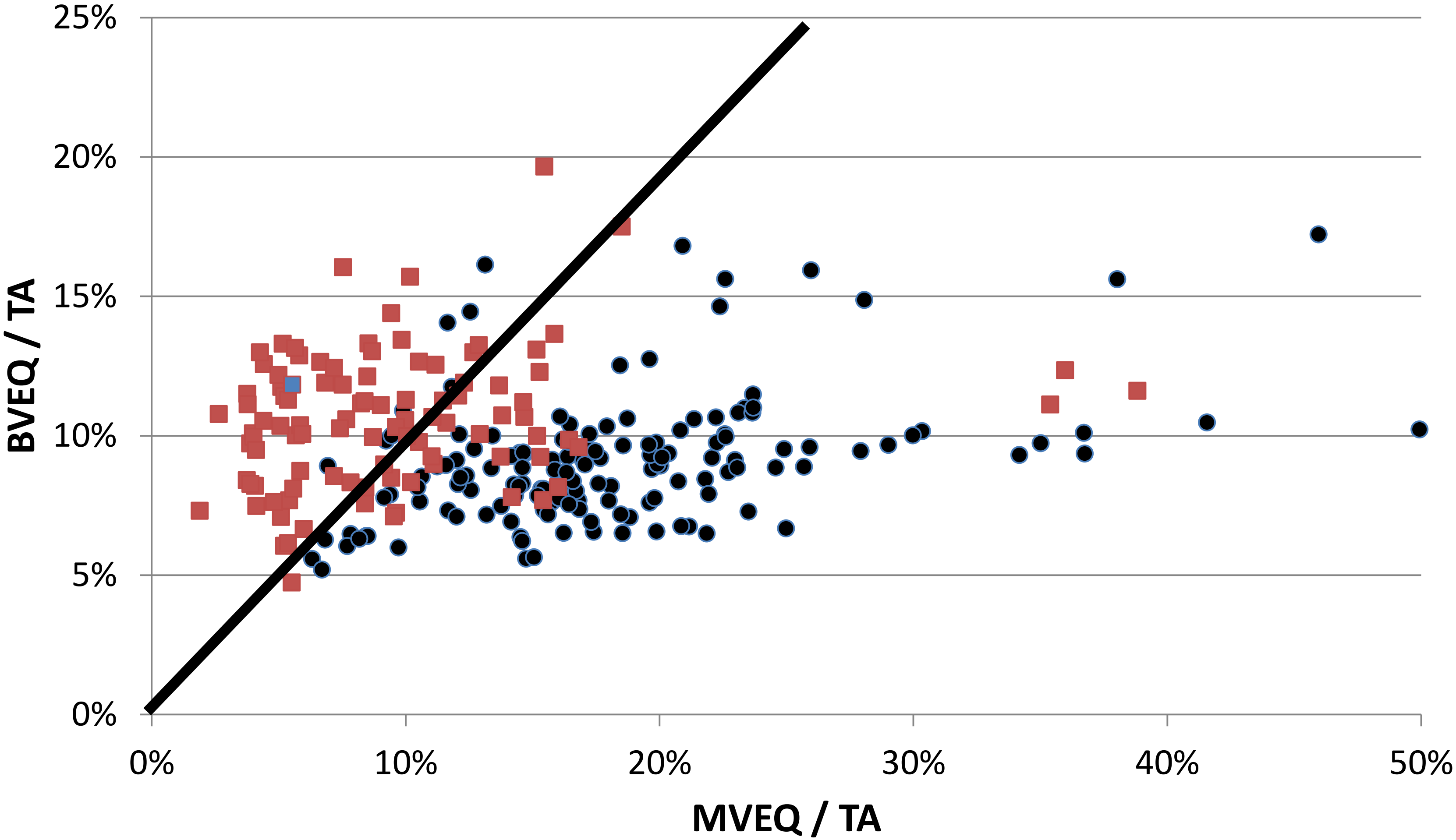
1986 - 2011



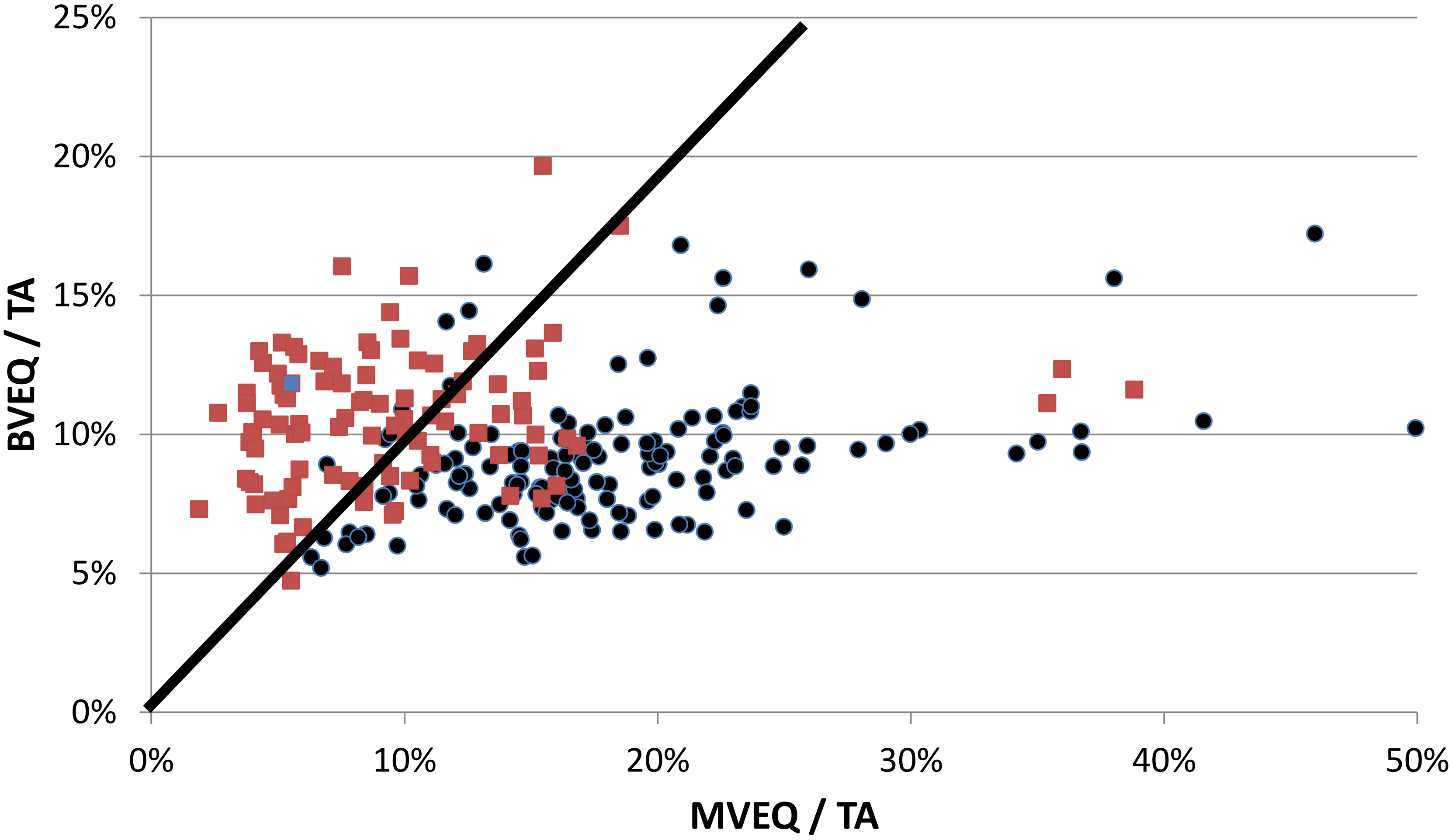


2008
20%
15%
10%
5%
0%
BVEQ / TA
0%
5%
10%
15%
20%
25%
30%
MVEQ / TA

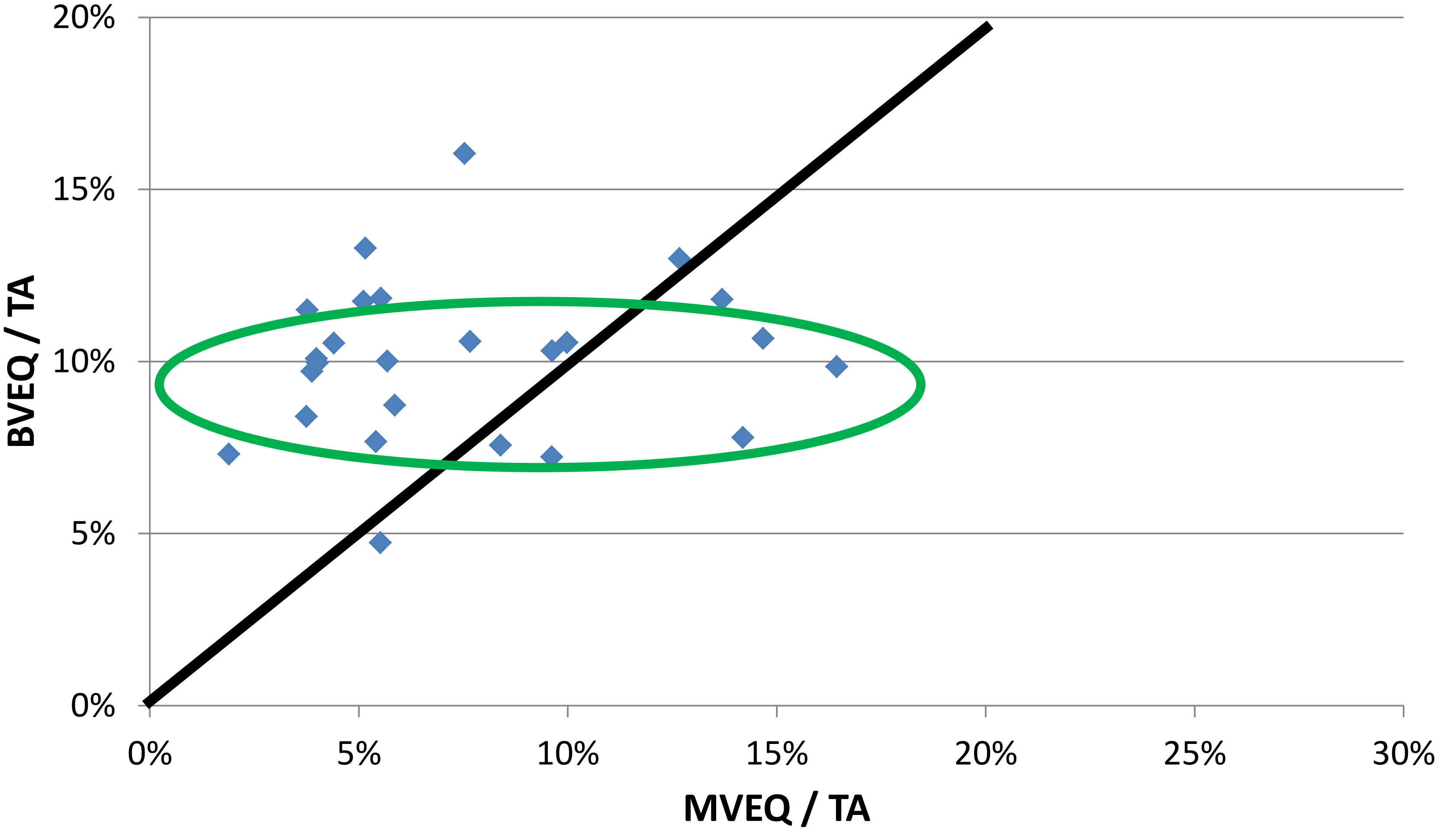
2002-2007, 2008-2011



2002-2007, 2008-2011



2008



Item #2: Performance-based plan revisions

A. Funding costs: vary with balance sheet condition?

B. PPNR

- Immensely important part of the stress tests.
- Strategic changes in response to initial stress?
- Everyone cannot “expand market share”.

Shocking the trading book

C. Stress test shocks hit all-at once.

Gives risk at a point in time.

BUT, gradual stress build-up generates endogenous responses.

Is that a more accurate type of risk?

Rick Bookstaber, “Using Agent-Based Models for Analyzing Threats to Financial Stability”
http://www.treasury.gov/initiatives/ofr/research/Documents/OFR_Working_Paper_No3_ABM_Bookstaber_Final.pdf

Item #3:
Improving the Stress Tests

- Compare own loss estimates to the Fed's: maybe they <u>are</u> right.
  - Goose
  - Gander

- Value of growth options (intangibles) depends on the state of the i^{th} firm relative to the sector.

CONCLUSIONS

1. MV is important (too)

2. Funding spreads vary with stress?

3. PPNR – key to strategic planning

4. Dynamic trading book responses (ABM?)