Why Stress Tests?

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Primary objective(s)?

- Micro-answer #1: To determine whether an institution can continue providing financial services, *without government assistance*, following a specified shock.
- Micro-answer #2: As part of CCAR, assess an institution's capital plans.

"PASS" → the institution is projected (simulated) to be solvent following the stress event(s).

Relevant Stress Test Dimensions

	SIFIs	
	Substantial, truly uninsured liabilities	Can rely on insured liabilities
Normal times	X	
Crisis		

Start with a SIFI with substantial ST liabilities.

What determines its solvency?

Market investors' assessments

- Particularly those of uninsured, ST liability holders.
- If the market believes a firm is insolvent – or if some investors think other investors believe the firm is insolvent – then they run and it IS insolvent.

- 2012 CCAR judges stress test results on the basis of simulated book value of common equity, which does not necessarily indicate solvency.
- During the crisis, even some firms with high book-valued capital ratios could not obtain market funding. (Likewise Europe in the past year.)

But market values are noisy!

- Some say market values (assessments) are inaccurate, error-prone.
- But whether the market is right or wrong about solvency, its belief determines a firm’s survival.

Stress Tests as Mark-to-Market

- Recognize likely losses in the banking book
- Forecast changes in product composition and pricing (PPNR)
- Evaluate losses in the trading book AND in the PV of other assets, liabilities.
- CCAR does this, but omits some potentially important items from equity.

Come as close as possible to marking everything to market (fair value).

SIFIs with primarily insured liabilities

	Substantial, truly uninsured liabilities	Can rely on insured liabilities
Normal times		X
Crisis		

In this case, liability holders won't run.

- But government will be “providing assistance” to under-capitalized SIFIs.
- What determines the value of government protection?
  - Economic capital vs. asset risk.
  - So again we need to forecast solvency or economic capital.

Therefore, stress tests have the same purpose: simulate solvency following a stress.

Redux

What is the primary objective of stress tests?

- Micro-prudential answer: To determine whether an institution can continue providing financial services, *without government assistance*, following a specified shock.

- Macro-prudential answer: to assess the financial system's ability to continue providing financial services, without government assistance, following a specified shock.

Do the purposes of a stress test differ according to the market environment in which banks operate?

The purpose is the same, but method of assessment should differ between trading and banking books.

- Varying composition of trading vs. banking books
- Dynamic effects seem much more important for trading than for banking books, yet they are treated similarly in the CCAR.

“Normal times” vs. “Crisis”

- “Crisis” means that the market is highly uncertain about true firm values.
- Stress test as SCAP: certifying the solvency of opaque institutions using inside information.
- But SCAP promised new capital, if needed!!!

“Normal times” vs. “Crisis” (2)

- Credibility in a crisis is built with “normal” stress tests.
- Without detailed disclosure during normal times, “crisis” assessments of solvency will be less credible on their own.
- There should be a lot of disclosure, regardless of the macro environment or the firm-specific conditions.
- This means that releasing bad news/assessments must be accompanied by an action plan designed to address the problem.

Summary

1. Stress tests should assess SIFIs' robustness, as indicated by marking to market assets and liabilities.
2. Same objective in normal times or crisis.
3. Avoid historical values in favor of forward-looking valuations. (Differs from Tier I common.)
4. The text mechanics should differ between the banking and trading books.