

# Towards better measurement of guarantee costs for TBTF institutions

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# Pressing need for more serious cost-benefit analysis of financial regulations

- TB(I)TF is not going away
- Viewpoints are polarized, politics fierce
- More emphasis on measurement could help build a consensus about which rules best promote stability while minimizing regulatory costs

# E.g., costs and benefits of high capital reqs

- **Admati and coauthors:**

- Private benefits of debt arise from distortions (taxes and guarantees) that create social costs. Beyond losing those benefits, banks would not bear any cost from much higher capital requirements
- Large behavioral distortions, excessive risk-taking

- **Industry:**

- High capital requirements significantly increase the cost of doing business and make some useful products and services uneconomical
- Lots of incentives for prudence already

# E.g., costs and benefits of high capital reqs

- **Critical questions for bankers:**

- Why, other than tax and guarantee benefits, is equity more costly than debt? How big is that cost? (e.g., in bps for WACC)

- **Critical questions for proponents of high capital requirements:**

- What happens when (inevitably) the capital of a large institution is not enough to prevent distress? How should regulators prepare? Should there be a TBTF guarantee fee to pay for residual risk and encourage downsizing?

# The importance of properly measuring (and thinking clearly about) guarantee costs

- Key inputs into measuring the benefits of regulation
  - Also can be used to reduce regulatory requirements on institutions that curtail risky activities
- Public discourse on this issue is woefully undisciplined
  - “Cost is potentially trillions of dollars”
  - “The government made money on the bailouts”
- “Best-practices” in measurement produce credible cost estimates
  - Official cost estimates are systematically downward biased
  - Aversion by policymakers to assigning cost to implicit guarantees makes them free

# Measuring guarantee costs: Conceptual issues

- **Cost is an *ex ante* concept**
  - *Ex post* outcome is not a measure of cost
  - Guarantees do not cost trillions of dollars, nor do they make money for taxpayers
- **Relevant measures use fair value or economic cost**
  - Actuarial measurements significant understate costs to government and ultimately taxpayers
- **How broadly should cost be measured?**
  - Economic cost to government/taxpayers of providing guarantees
  - Economic benefit to banks (if those exceed gov't cost)
  - Economic benefits plus externalities

# Measuring guarantee costs: Conceptual issues

- **Incentive effects of guarantees depend on solvency**
  - Emphasis is often on incentive for increased risk-taking
  - Theory suggests this is only true when banks are distressed
  - Guarantees should induce risk aversion by solvent banks because they create charter value that is destroyed by bankruptcy
- **How should guarantee costs be measured?**
  - Rate spreads between similar insured and uninsured institutions
  - Contingent claims approach
    - Information on assets and liabilities from balance sheets
    - Information about volatility and cost of risk from stock prices

# Example 1: Cost of TARP assistance

- Congressional Oversight Panel commissioned study to find **net cost of TARP capital infusions**
  - Fair value estimates of net cost
    - Executed by Duff & Phelps (with oversight from A. Blumenthal, W. Goetzmann, and D. Lucas)
    - Dated Feb. 2009
  - Considered capital infusions to 10 largest TARP recipients and warrants received; extrapolated to all 2008 capital purchases
  - “Treasury paid \$254 billion, for which it received assets worth approximately \$176 billion, **a shortfall of \$78 billion**”
  - Contrast to Secretary Henry Paulson’s claim that “This is an investment, not an expenditure, and there is no reason to expect this program will cost taxpayers anything.”



## Example 2: Cost of Federal Reserve Emergency Facilities

- CBO Study, “The Budgetary Impact and Subsidy Costs of the Federal Reserve’s Actions During the Financial Crisis,” May 2010
- Reports **total ex ante fair value cost of only \$21 billion**, primarily from Term Asset-Backed Securities Loan Facility (TALF)
- Most facilities involved little credit risk, transactions were at fair value, or TARP absorbed losses

## Example 3: Implicit guarantees to F&F

- What was the **fair value of the implicit government guarantee of Fannie and Freddie** as of year-end 2005?
  - “Valuing Government Guarantees: Fannie and Freddie Revisited,” D. Lucas and R. McDonald
  - Options pricing approach with dynamic capital structure
  - Government infuses cash if default boundary breached
  - Combined *ex ante* cost of about **\$25 billion over 10 years**
  - Translates to **insurance premium of 23-27 bps** annually on \$1.5 trillion of liabilities, or \$3.5 billion
- CBO estimate of **fair value cost in 2009 of \$291 billion**

# Conclusions

- Examples illustrate:
  - Methods that can be used to estimate costs of implicit and explicit guarantees of TB(I)TF institutions
  - The magnitude of some of those costs leading up to and during the financial crisis
- Charging TB(I)TF a premium based on estimated guarantee costs could:
  - Create a focal measure of guarantee cost
    - To use in cost-benefit analysis of regulations
    - To complement measures of systemic risk
  - Encourage institutions to reduce premiums by curtailing risk
  - Provide compensation to the public for bearing risk

- Thank you!