Comments by Rafael Repullo on

The Effect of Fair vs Book Value Accounting on the Liquidity and Investment Behavior of Banks

by

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Introduction

- **Purpose of paper**

  Analyze effect of book value accounting (BVA) vs

  fair value accounting (FVA) on:

  - Asset liquidity
  - Investment and risk-shifting incentives

- **Main results**
  - FVA reduces asymmetric information + increases liquidity
  - FVA increases risk-shifting → higher risk of bank failure
  - FVA does not lead to more market discipline
  - FVA increases need for regulation

General comments

- Important issue on which there is little academic research
- Novel idea: Implications of FVA for asset liquidity
- Novel assumption: FVA eliminates asymmetric information
- But: Formal analysis is unnecessarily complicated

A simple example

- Two types of banks:
  - Good banks have assets A = 120
  - Bad banks have assets A = 100
  - Both types have deposits D = 90
  - Equal number of good and bad banks
- Under BVA there is asymmetric information
  - Only insiders know type of bank
- Under FVA there is symmetric information
  - Both insiders and outsiders know type of bank

A simple example

- Balance sheet under BVA:

Good	
A = 100	90 = D
	10 = E

Bad	
A = 100	90 = D
	10 = E

- Balance sheet under FVA:

Good	
A = 120	90 = D
	30 = E

Bad	
A = 100	90 = D
	10 = E

A simple example

- Banks can invest in a project with stochastic returns:
  - 1 unit invested yields: 1.3 with probability 1/2

    0.7 with probability 1/2

    → Expected (net) return = 0

- Assumption: Banks cannot raise new funds for this project

  → They have to sell their assets in a secondary market

Risk-shifting under BVA

- Under BVA there does not exist a pooling equilibrium
- Market value of assets if both banks sell: (120 + 100)/2 = 110

	Value of equity (E)	
Bank	Don't invest	Invest
Good	30	(110×1.3 – 90)/2 = 26.5
Bad	10	(110×1.3 – 90)/2 = 26.5

→ Only bad banks have an incentive to sell and invest

Risk-shifting under BVA

- Market value of assets if only bad banks sell: 100

	Value of equity (E)	
Bank	Don't invest	Invest
Good	30	$(100 \times 1.3 - 90)/2 = 20$
Bad	10	$(100 \times 1.3 - 90)/2 = 20$

- 50% of the bad banks (and 25% of all the banks) fail

Risk-shifting under FVA

- Under FVA:
  - Market value of assets of good bank is 120
  - Market value of assets of bad bank is 100

	Value of equity (E)	
Bank	Don't invest	Invest
Good	30	$(120\times1.3 - 90)/2 = 33$
Bad	10	$(100\times1.3 - 90)/2 = 20$

→ Both banks have an incentive to sell and invest

Comparison between BVA and FVA

- Under BVA good banks do not engage in risk-shifting
  - Why? Lemons problem in secondary market for bank assets
  - Moving to FVA solves lemons problem

- Under FVA all bank portfolios are liquid
  - All banks engage in risk-shifting
  - Proportion of banks that fail goes up from 25 to 50%

- Market value of assets sold under BVA cannot be basis for FVA

→ cf. O'Hara (1993)

Main comments

(1) Interesting idea

- FVA may lead to increased liquidity + risk-shifting
- However
  - FVA is not the only way to get this (e.g. derivatives)
  - What's the difference between sales and securitization?

(2) Assumption that banks cannot raise funds should be justified

- Model à la Myers-Majluf?

Main comments

(3) Underinvestment (and hence welfare) results are not robust

- In example investment has zero expected return
- If it were positive, BVA would lead to underinvestment
- If it were negative, FVA would lead to overinvestment

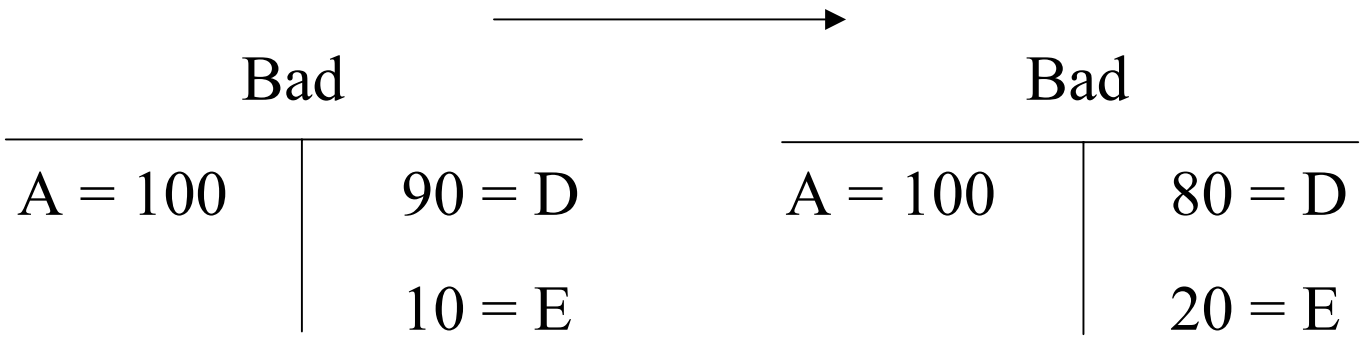
(4) Assumption that deposits are insured is not needed

- Moreover, one cannot address issue of market discipline

Main comments

(5) FVA facilitates market discipline

- Effect of risk-shifting on (uninsured) depositors' claims



- If deposits are due before the maturity of investment
  - Risk premium would be added to the deposit rate
  - Risk-shifting would disappear

Final remarks

- Assumption that FVA eliminates asymmetric information seems difficult to justify → cf. Plantin, Sapra & Shin (2004)

- With Basel II capital requirements
  - Probability of bank failure is negligible (less than 0.1%)
  - Risk-shifting incentives are negligible

    → cf. Repullo & Suarez (2004)

- In what sense are we talking about banks (and not firms)?