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Equity Depletion from Government Guaranteed Debt

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Comments on Robert Hall's "Equity Depletion from Government-Guaranteed Debt"

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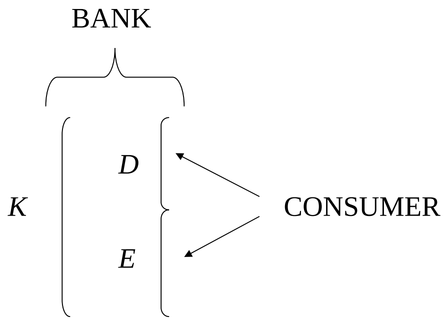
Introduction

- Paper works out the implications of government guarantee of private debt in a dynamic general equilibrium model.
- Topical ("Macro-Financial Linkages").
- Structure of my comments:
  - summary of the model
  - empirical and policy relevance

Model: a two-period, real version

Assumptions

- Two periods $t = 1, 2$, constant returns to capital.
- Continuum of (bank+consumer) pairs.



Model: a two-period, real version

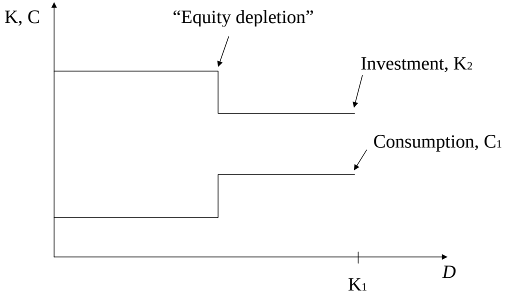
- Bailout: if negative equity ($K < D$), government makes transfer $D - K$ to maintain $K \leq D$ (financed by lump-sum tax).
- Bank maximizes depositor/shareholder welfare.
- Each (bank+consumer) pair chooses consumption and investment so as to maximize

$$U = \frac{C_1^{1-\gamma}}{1-\gamma} + \frac{C_2^{1-\gamma}}{1-\gamma}$$

Model: a two-period real version

Results

- Result 1: high leverage $\Longrightarrow$ equity depletion.



- Classical "moral hazard" distortion.
- But new macroeconomic twist: there is a cost (overconsumption) so this will occur only if benefit is large enough, i.e., debt large enough relative to capital.

Comments

- Is equity depletion a concern?
- Yes: more generally, moral hazard induced by safety nets certainly is.
- This is the main justification for capital adequacy ratios.
- Example: FDICIA has prompt corrective action mechanisms triggered by capital adequacy thresholds.
- Those mechanisms would prevent equity depletion, if they worked (as noted by Hall).

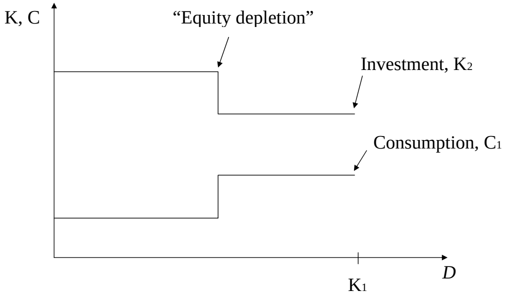
Comments

- However, recent developments show that mechanisms for prompt corrective action do not work in a fast-evolving, systemic crisis.
- Furthermore, financial institutions distributed large dividends very late into the crisis
  - example: AIG distributed its largest dividend in years on September 3, 2008, two weeks before its (first) bailout
  - but not all: e.g., Wachovia reduced its dividend in April 2008
- equity depletion a concern looking forward? (mild restrictions on dividends in TARP Capital Purchase Program)

Comments

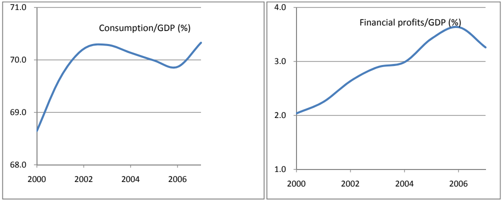
- Did financial institutions distribute large dividends late in the crisis because of equity depletion a la Hall?
- Maybe, but one may think of other mechanisms
  - first, myopia
  - then, signaling and gambling for redemption

Comments



- On the macro side, the main result is overconsumption (underinvestment) before bailout
- Does this work in the open economy?
- How large can this effect be?

Comments



Source: BEA.

Conclusion

- "the model falls short of capturing reality. It makes no claim to portray the actual events in financial markets in 2007 and 2008." (Hall)
- But this is a nice, elegant model, and it does clarify the logical implications of having government debt guarantees in a dge framework