

The Role of Default in Macro-economics

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A. Introduction

- Last year Bill White spoke in this same Mayekawa lecture on ‘Some Alternative Perspectives on Macroeconomic Theory’.
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- The main deficiency is that current models focus on wage/price frictions and shocks to productivity, ignoring financial frictions and shocks to credit and confidence.
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- Models assume all debts always paid in total, transversality condition.

But this rules out default. Requires

- 1) Self denial (no strategic default)
- 2) Perfect/complete financial markets

If no default, then

- a) No financial intermediaries
- b) No money

Real rate of interest, influenced by fiscal policy.

B. Program of Model Building

Including default, notably default of financial intermediaries, is hard to do. Not continuous, dimensionality.

Long term program of Dimitri Tsomocos and myself. Building primarily on the pioneering work of Martin Shubik.

Repayment rate depends on type of decision-maker and state of world. Equilibrium where marginal benefit of loss repayment (i.e. more consumption) equals marginal cost of default (pecuniary or non-pecuniary).

If MC Default infinite, no one borrows.

If MC Default zero, no one lends.

An interior equilibrium (MC Default = MB Default)

Most other models which aim to incorporate financial frictions, either

- (i) use an exogenously, but time-varying spread;
- or (ii) just have defaults amongst non-financial companies;
- and/or (iii) do not allow default of banks in equilibrium.

Our own approach has default as a central feature (including banks) and hence also a central (and non-neutral) role for money, plus liquidity premia.

Comes at a cost, dimensionality and complexity, hence not so easy to manipulate mathematically, or obtain closed-form solutions.

On the other hand the basic model is flexible and can be rearranged to study issue at hand, for example housing bubbles and credit expansion; interconnections amongst banks; cycles in confidence and fear.

C. Default and Forecasting

Equilibrium is the maintained assumption, with cycles around equilibrium, e.g. output gap.

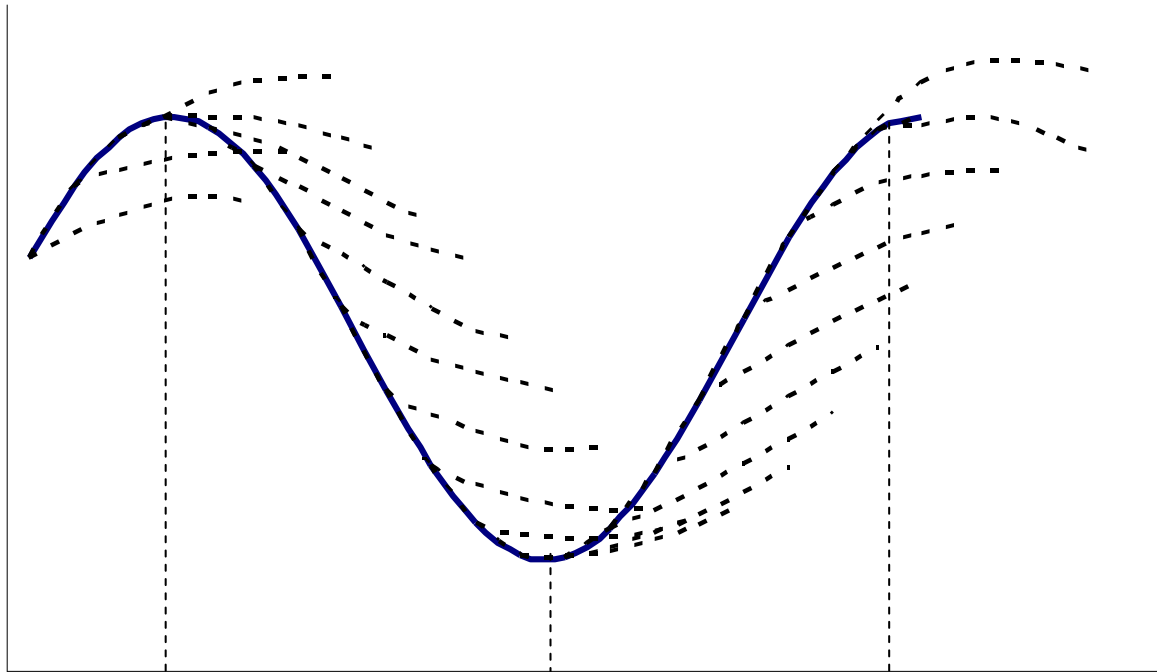
Most forecasts a combination of reversion to equilibrium plus auto-correlation of cyclical momentum.

Arise from a combination of real (e.g. technology) and financial shocks.

Worst financial shocks occur after a period of good, stable growth (Minsky: BGTV).

Followed by a period of risk aversion and tightened regulation (Restricting growth? Debate on effect of capital adequacy requirements).

Stylized Pattern of Relationships between Forecasts and Out-turns of Macro-Variables over the Cycle



—— Out-turns of Macro-variables

----- Forecast of same Macro-variables

D. Can Crises be Forecast?

Desire by politicians for Early Warning System (EWS) Rationale for establishment of Basle Committee on Banking Supervision.

Reason why EWS hard to develop:

- 1) Lucas critique (Goodhart's Law)
- 2) Tail risk (no one saw Lehman failure, few saw housing bubble, but Greece)

Nevertheless some indicators:

- a) Credit expansion/leverage
- b) Housing/property prices

Difficult “to take away punch-bowl when party is getting going”, McChesney Martin. Presumptive indicators and comply or explain.

Can stress tests help?

Limited to first-round effects.

Support by top-down model exercises.

E. Forecasting Procedures after Onset of Crisis

Use of risk spread. QE as a means to lessen rising risk spread.

F. How to Handle Default of a Global SIFI

Until recently only three alternatives for handling a failing bank:-

- 1) Assisted merger with another stronger bank;
- 2) To rescue using taxpayer's money;
- 3) To allow it to enter bankruptcy, using *lex generalis*, and be liquidated.

The merger route:-

- a) Increases concentration, reducing competition.
- b) May involve taxpayers' money.
- c) Can weaken the initially stronger bank.

Nevertheless route of choice in crisis.

Liquidation was shown to be a disaster, but recapitalisation using taxpayers' money has been:-

- 1) Too expensive (Ireland).
- 2) Too politically unpopular.

So search is on for other methods for handling bank default.

Consider three such methods here:-

- 1) Improve the liquidation process.
- 2) Shift the burden of loss to the bondholder.
- 3) Reform Prompt Corrective Action (PCA).

N.B. Not mutually exclusive.

Dodd-Frank Act

- a) Enactment of a Special Resolution Regime.
- b) All SIFIs to make Living Wills, in conjunction with regulators.
- c) Prepare an Orderly Liquidation Process.
- d) Make the banks meet any residual cost.

But

- 1) Will closure be done soon enough?
- 2) Preparing Living Wills will be tiresome and expensive.
- 3) Can any cross-border SIFI be liquidated in an orderly fashion?
- 4) Ex ante, or ex post, tax? Both are problematical.

Europeans are much keener on shifting burden to bondholder, via CoCos or Bail-ins.

- Triggers and conversion rates for CoCos.
- Contractual or statutory Bail-ins.

N.B. Collective Action Clause (CAC) bonds for European Government debt.

But

- a) Choice of triggers/conversion rates tricky.
- b) Limited market (not other levered funds)
- c) Would it actually reduce political unhappiness?
- d) OK for single bank, but contagious for system?

PCA established by FDICIA in 1991. A brave try but failed in 2008.

Why? Based on accounting capital. Equity market price measures better. But they have their own problems.

- 1) Manipulation (naked shorts).
- 2) Market instability (flash crash).

Use a combination of both.

Under FDICIA 2% trigger.

4% for accounting measure, plus 2% market measure.

Under FDICIA below 2% recapitalise or be shut.

Prefer recapitalise or Temporary Public Ownership for any SIFI.

This latter is not route being taken (partly for political (ideological) reasons).

So resolution procedures will remain problematical.