

Discussion of Gertler and Kiyotaki: Financial intermediation and credit policy in business cycle analysis

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Figure: Ramon's reaction to the other paper



Figure: My reaction to this paper



- ▶ This paper is based on the premise that the severity of the recent recession can be attributed to a serious disruption of financial intermediation.
- ▶ Mark and Nobu develop a nice, rich GE model that incorporates financial intermediation and also an interbank market. The key element of the model is an endogenous balance sheet constraint for financial institutions.
- ▶ The model is used
 - ▶ To simulate a recession in the presence and absence of financial frictions following a -large- shock that decreases the price of banking assets.
 - ▶ To evaluate the countercyclical potency of some of the credit market interventions that were undertaken by the CB and the fiscal authorities during the recession.

On the basis of these simulations, they argue that

- ▶ Their financial frictions help generate a realistic looking recession (size wise). In particular, a "breakdown" of fin. intermediation can significantly amplify a recession.
- ▶ Some of the policies pursued in the real world have the potential to significantly mitigate the recession.

The model

- ▶ Banks intermediate funds between households and firms.
- ▶ Households: Make one period, fixed interest rate deposits with the banks.
- ▶ Banks: Use deposits + own net worth + funds borrowed from other banks + funds borrowed from the government to buy equity in firms.
- ▶ Firms: Use bank funds to finance purchase of capital. Combine capital with labor to produce output.

There are three key financial frictions in the model

- ▶ Banks are absolutely essential for the operation of firms.
- ▶ Banks are not trustworthy. They may not pay back their creditors. Need to possess sufficient collateral -net worth- in order to attract funds.
- ▶ Banking market segmentation (in the short run). Rates of return on capital differ across markets.

Segmentation (island structure) matters because

- ▶ Needs for funds (investment opportunities) vary randomly across islands.
- ▶ Local firms can only get funds from local banks.
- ▶ The interbank market may not function perfectly.

The main mechanism:

A decline in the value of firm capital

reduces the value of bank assets (firm equity held) → reduces their ability to borrow → reduces their demand for firm assets → reduces the value of firm capital → ..

Magnification effects

The main implications

- ▶ The model without financial intermediation frictions does not generate enough of a recession.
- ▶ Financial frictions and a disruption in financial intermediation can make the recession more severe.
- ▶ Government policy can be effective, in particular when it targets the distressed markets.

Main comments

- ▶ A great - and also very beautiful technically- paper. It will transform-shape the macroeconomic modelling of financial markets the same way that the Bernanke-Gertler-Gilchrist model did during the previous decade.
- ▶ It provides an elegant, rich and flexible theoretical framework that makes it possible to study many important issues that -each one- would have required a separate model to analyze (such as regulatory arbitrage, securitized lending, ..).
- ▶ It may have interesting cross sectional implications (due to non-trivial heterogeneity). The quantitative part only scratches the surface in terms of exploring the empirical implications of the theory.

Critical comments

The paper represents an important theoretical innovation.

- ▶ But it contains some controversial features.
- ▶ Is it an adequate laboratory for quantitative analysis?
 - ▶ More is needed in order to convince the reader that the type of financial frictions and financial intermediation break down emphasized here may have contributed to the severity of the last recession and may have justified the New New Deal.

Some debatable features

- ▶ **The financial friction.** Unwillingness vs inability to repay.
That is, theft vs the standard moral hazard problems between borrowers and lenders.

Is it plausible? Is it a proxy for something else?

- ▶ **The spread.** The standard spread studied in the literature is the difference between borrowing and lending rates for financial institutions whereas the key spread in this paper is the difference between what the "banks" pay to borrow and what they earn on their equity portfolio.
 - ▶ Which spread is more useful for understanding financial crises?
Risk vs liquidity premia
 - ▶ What does the model imply for the former? How large is the liquidity premium?
 - ▶ What is the role of equity rather than debt finance for firms?
Are there magnification effects with the latter?

Features that may lead to an exaggerated role for financial intermediation in business cycles

- ▶ **No fin. intermediation - no production.** Firms cannot rely at all on own net worth to finance investment. What kind of friction prevents them from doing so (specially in a world with financial disruptions) or from accessing the stock market continually?
- ▶ **The shock.** Productive capital vs housing. In the paper, the shock involves the destruction of physical capital, which is a factor of production. In the recent crisis, it involved the reduction in the value of bank assets in real estate which is a much less important factor of production.
The balance sheet effects seem similar, the quantitative implications for business cycles may be quite different and possibly smaller in the latter case.

Features that may exaggerate the effectiveness of policy

- ▶ **Informational** assumptions. The most effective policy (direct lending) requires identifying which markets have excess returns. Straightforward in the model but may not be feasible in the presence of asset heterogeneity.
- ▶ Because of the fin. friction, the banks are always **undercapitalized**, pay no dividends independent of their profitability-state of the business cycle and use government capital infusions productively. But under different dividend policies, the banks might pass on current (or expected future) capital infusions to their shareholders, weakening the effectiveness of government policy.
- ▶ In the model, banks want but cannot lend. But during the crisis, the banks possessed **sizeable reserves**. The model could account for it on the basis of persistent segmentation and expectations of future *good* news. Does this fit the standard view?

Some additional comments

- ▶ **Normative** analysis could represent a valuable addition. What is the welfare cost of business cycles in this model? How large the welfare gains from government intervention? What is the welfare ranking of alternative policies?

In this context, the **moral hazard** aspects of government actions would need to be introduced.

- ▶ Do financial frictions help do away with the "controversial" features (investment adjustment costs, habit persistence etc.) that people have been using to get the right business cycle properties?

Great paper

But its relevance for observed business cycles and its reliability for the evaluation of unconventional policies remain an open question.