

Discussion:
Financial Crises, Bank Risk Exposure and
Government Financial Policy

by

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Contribution

- Paper is a state-of-the-art quantitative macro model with a financial friction that results in lending to firms by banks being restricted
- The key feature of the intermediation sector is that banks' choice of capital structure is modeled
- Whole economy is modeled so that the effects of Fed's policy of large scale asset purchases on output, investment, employment and so forth can be measured

- Modeling of banks is cleverly done to maintain a representative household structure
- This allows the 17 equations in 17 endogenous variables to be solved
- The system remains tractable and the dynamics can be solved for various scenarios
- This allows policy analysis in a general equilibrium setting
- The whole analysis is very neatly done

Comments

- As with most of these macro models the cost of the modeling of the whole economy is that the financial friction is quite simplistic
- This raises the question of the trade-off between the sophistication of the financial stability analysis and the tractability of the macroeconomic analysis
- To what extent is a simple financial restriction such as limited lending by banks what goes wrong in financial crises?

- The popular discussion in the press seems to put tremendous weight on this factor:
 - If only banks would lend more then the economy would recover and we would be back to a normal world again...
- But as always with lower bank lending, there is the question of which direction causality goes, are banks not lending or are creditworthy firms not borrowing?
- Very few, if any, convincing studies that establish causation

- Data such as the Bank of Spain Credit Registry needs to be made much more widely available so we can base these kinds of macro models on much better empirical evidence
- But restricted lending by banks is only one aspect of what may happen in financial crises
- The key issue from the financial stability side is what is systemic risk and which aspects should we try to embed in macro models?

What are the sources of systemic risk?

1. Panics – banking crises due to multiple equilibria
2. Banking crises due to asset price falls
 - a. Business cycle
 - b. Bursting of real estate bubbles
 - c. Bursting of other asset price bubbles
 - d. Mispricing due to limits to arbitrage
 - e. Mispricing due to “flash crashes”
 - f. Sovereign default
 - g. Increases in interest rates

3. Contagion

(a) Domino style contagion through interlinkages

(b) Similar asset holdings by banks

(c) Fear of the unknown as seems to have happened after the Lehman bankruptcy

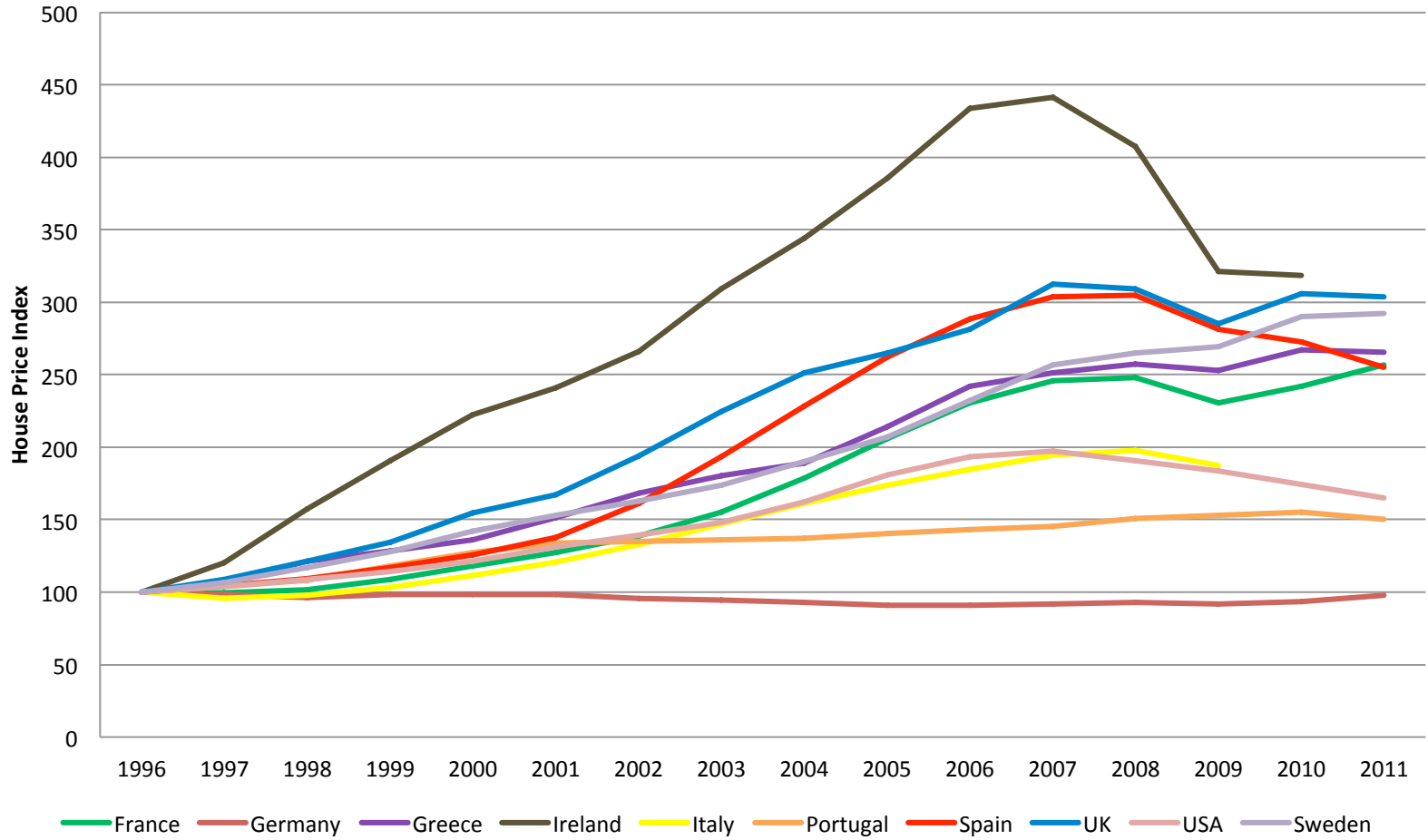
4. Foreign exchange mismatches in the banking system

5. Agency problems in financial intermediaries

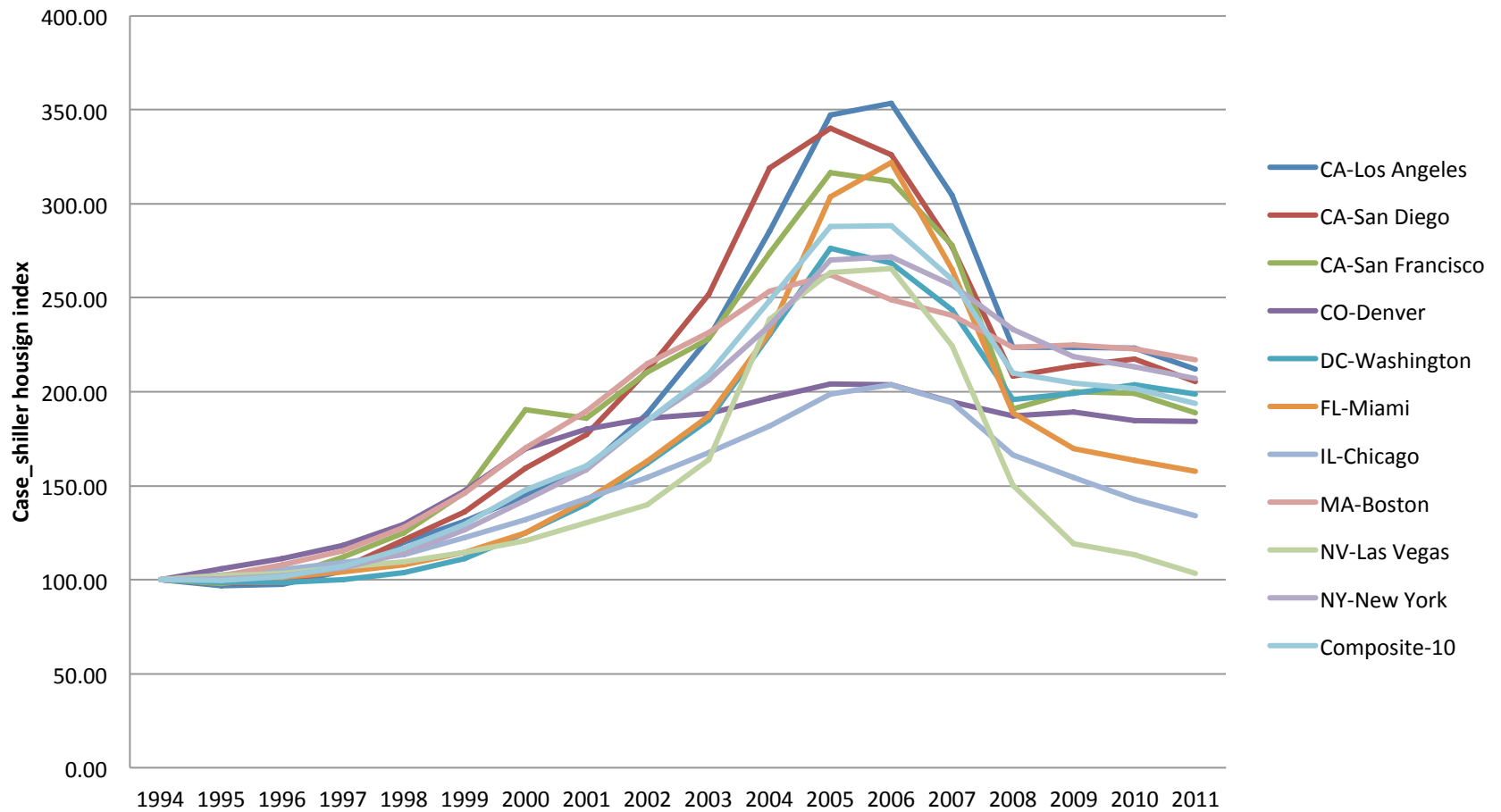
Focus on two of these here

1. A fall in the price of bank assets due to the bursting of a real estate bubble
 - This seems to have been very important in the recent crisis and is very often a cause of financial crises
2. A fall in the price of bank assets due to an increase in interest rates
 - This is arguably one of the major systemic risks that we currently face

Nominal Housing Prices in Various European Countries and the U.S.



Nominal Housing Prices in Different U.S. Cities



A Rise in Interest Rates

- Japan provides an interesting example of what may happen with a rise in interest rates
- Bank of Japan plans to increase rate of inflation to 2% a year
- What will this do to interest rates and the value of 10 year JGBs held by banks?
- What will it do to the long term fiscal position given Japan's large gross debt?

Suggested Procedure for Macro Financial Modeling

1. Establish a rigorous theoretical understanding of possible sources of systemic risk
2. Establish the empirical importance of each
3. Embed the most important ones in a macro model to consider interactions and effect on macroeconomic variables of interest