

Banking Frictions, Integrated Financial Markets
and Unconventional Monetary Policies:
A Two Country DSGE Model

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Abstract

Financial frictions and integrated financial markets matter by spreading and amplifying country specific shocks. We developed a two country DSGE world with incomplete markets to address these issues. The main reference for the model's framework was a work by Gertler and Kiyotaki¹. In the basic version of the model countries trade in goods but financial markets are closed. Thus, we enriched the model by allowing integrated financial markets, however portfolio shares remained exogenously set. We ended up with the complete model that also allows for portfolio choice by implementing a method developed by Devereux and Sutherland². We found home bias in international portfolios, that under incomplete markets allows lower volatility than under full portfolio diversification. The model provides a simple two country world framework that may also be used for monetary policy issues.

During the recent financial crises, the Central Banks of the most developed countries implemented different examples of unconventional monetary policies in order to soften the tightening in the credit market conditions.

Unconventional monetary policies seemed therefore to gain an increased importance during the last few years as alternative instruments of monetary intervention when the traditional target rates are close to the zero or when the credit market conditions worsen, with serious consequences for the real economy, justifying a growing interest on this issue.

In the second part of this dissertation, we analyzed how different unconventional interventions by the Central Banks might mitigate a country-specific crisis in the context of our two country DSGE model with credit frictions. Again, we started with the basic version of the model, where financial markets are closed but people trade in home and foreign goods.

¹Gertler, M. and Kiyotaki, N., "Financial Intermediation and Credit Policy in Business Cycle Analysis", *N.Y.U. and Princeton*, March 2010.

²See Bibliography for the many papers of this topic. Among the others, Devereux, M. B. and Sutherland, A., "Solving for Country Portfolios in Open Economy Macro Models", "International Capital Flows", *CEPR Discussion Papers 5966, C.E.P.R. Discussion Papers*, 2006.

Then, we moved to the model where both good and financial markets are integrated and portfolio shares are endogenous. By following the same definitions developed by Gertler and Kiyotaki (2010), we inserted in our model three types of policies: liquidity and lending facilities and equity injections. We specifically focused on the effects of coordinated versus uncoordinated policies. In conclusion, with closed financial markets we found evidence of benefits from unconventional monetary coordination when the answer of the monetary policy is strong enough. The results of our analysis are, however, more controversial when we moved to integrated financial markets with endogenous portfolio shares.