### ON MONETARY POLICY, BANKING AND WELFARE

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The research projects I would like to work on during my stay at RCC Harvard represent both empirical and theoretical research in the field of monetary policy, banking and macroeconomic welfare. The first project is an empirical one (adopts a multi-regime vector autoregressive (MRVAR) approach) and is research very much in progress. The second project, which is togheter will Raúl G. Sanchis, adopts a game theoretical approach and is intended to be the main focus of my stay.

## Research project 1: The zero lower bound and the fiscal multiplier (MRVAR approach)

Private debt and deleveraging are concepts which have received a lot of attention in the aftermath of the latest US financial crisis. Based on a very simple dynamic stochastic general equilibrium (DSGE) framework, Krugman and Eggertson (2012) have shown that after a deleveraging shock (Minsky Moment), the interest rate could easily be pushed against its zero lower bound (liquidity trap situation). Due to the issue of dynamic inconsistency of monetary policy, fiscal policy is viewed among many economists as the only viable option to escape such a trap (see for e.g. Woodford, M. (2012) and Krugman (1998)). Indeed, Krugman and Eggertson (2012) have show that the size of the fiscal multiplier will be increasing when the amount of debt constrained becomes higher in the economy. Though the welfare implications of the multiplier has been challenged by Weinzierl and Mankiw (2011)

The aim of this paper is to check whether such theoretical results are line with the data for the USA and Japanses economy. By applying a multi-regime vector autoreggresive (MRVAR) approach, fiscal policy shocks are identified under normal conditions and in a liquidity trap situation, and it is statistically tested whether the fiscal multiplies differ from the two regimes.

# Research project 2: Assessing bailout policies in the banking system under a game theoretical approach.

In this project, we intend to develop a static model of modern banking that combines element found in Disyatat (2011) and Martinez-Miera and Suarez (2012). The purpose of the work is to analyse how an endogenous money creating bank sector operates under various market environment (free competition, duopoly and perhaps stackelberg) and market regulations (capital requirments, bail out guarenates and other transfer schemes) when we allow for that their

balance sheet can be intoxicated with excessive risk.

In the model, we would like to find the solutions to, under various regulations and market environment, how labor is allocated between the credit dependent firms in the economy compared to an optimal allocation. The household sector will be the focal point of the analysis, since the volatility in the economy could bring about huge transfer across agents through the banking sector and regulations and as such affect the income inequality.

This project represents the first of my collaboration with Raúl G. Sanchis, and is intended to be the first of three works on banking and regulations. In the second paper, we would like to get closer to the Diamond-Dybvig set up (see for e.g. Diamond (2007), and bring parts of our model into a three period framework. Finally, in the last work, we investigate the possibilities to check whether our model results perform in a fully fledged dynamic stochastic general equiliburm framework.

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