Title

AN ALTERNATIVE APPROACH FOR MODELING SPECULATIVE BUBBLES: IMPLICATIONS ON FINANCIAL STABILITY

Type of funding agency: UEFISCDI

Director:

Professor Adrian-Cantemir CĂLIN , PhD

Purpose:

This project proposal aims to analyze the mechanisms of speculative bubbles formation, their measurement methodologies and their impact on macroeconomic and financial stability. We investigate the reaction of speculative bubbles to monetary policy shocks, which allows the analysis of leaning against the wind policies. We study possible common movements of speculative bubbles, an issue vaguely investigated so far.

Objectives:

The project aims to measure financial bubble formation, and their reaction to economic shocks and to investigate the impact of bubbles on financial markets and financial stability. We aim to provide an exhaustive investigation of a wide set of financial assets that will be a mix of state-of-the-art modeling methods and machine learning.

Design/Methodology/Approach:

We employ the following methods: VAR models, DSGE models, Bayesian techniques, and machine learning algorithms.

Results/originality:

We compute and update online a bubble fragility dashboard, meaning an automated report that shows how sensitive are financial assets to bubble formation that available online.

Impact on the society:

1. A better comprehension of bubbles formation mechanisms and possible conventional and unconventional monetary policies that can be used in order to counter financial instability.
2. The possibility of better designing policies aimed at preventing and/or dealing with bubbles, including the design of macroprudential policies, which represent one of the most urgent policy issues in macroeconomics.