ACADEMIA DE STUDII ECONOMICE DIN BUCUREŞTI

Şcoala doctorală Economie și Afaceri Internaționale

TEZĂ DE DOCTORAT

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RESUME

Systemic risk has been a constant for financial markets in contemporary history, but over the past few decades it has generally been overlooked during periods of accumulation, it gained attention late and usually at the moments when it actually materialized in systemic crises. The global financial crisis clearly showed the macroeconomic and financial stability distortions that resulted from systemic events. The financial crisis has generated a well-founded vein of interest in systemic risk, both in academic and in policy-making circles. The recurrent tendency to underestimate systemic risk finds its explanation in the literature. First, human intuition assumes that there is a causal relationship only when certain events are close in time and space. For this reason, systemic risk does not attract the same attention as a catastrophic event, although it does have the potential to generate a catastrophe. Second, when dealing with non-linear systems, people tend to repeat previous errors, and the learning process is affected by the dimensions and dramatic effects of the crisis, thus becoming costly and infeasible. Third, systemic risks have a common problem. Changes in the behavior of economic agents are not stimulated, since each of them has only a marginal contribution to the systemic risk. As a consequence, systemic risks are frequently underestimated and become more difficult to manage than conventional ones.

This study aims to provide a detailed analysis of systemic risk in international financial markets, both from theoretical and empirical points of view. The first part of the thesis examines the theoretical bases, that are absolutely necessary for the understanding and evaluation of systemic risk. For this purpose, a series of methods specific to qualitative research were used, such as logical inductions and deductions, syntheses and comparative analyzes based on specialized

literature. In the second part of the thesis, we tried to demonstrate empirically the existence systemic risk and the presence of contagion effects on international financial markets. Specific quantitative methods were used to perform the empirical analyses: generalized autoregressive conditional heteroscedasticity – GARCH models, quantile regressions, variance decomposition models and Bayesian entropies.

The main objectives targeted were the following: (i) determining the foundations, the framework and the ways systemic risk manifests from a theoretical point of view; (ii) estimating the exposure and risk contribution of sectors of the real economy; (iii) investigating the phenomenon of contagion on the financial markets and its directional nature; identifying the main sectors/institutions that generate systemic risk and the vulnerable ones that receive the risk; (iv) modeling the connections between banking systemic risk and liquidity balance sheet variables.

The insights provided by the results presented in this paper can be useful for setting macroprudential policies, especially if we discuss risk exposure and risk concentration limits for financial institutions. Regulators focusing on market surveillance should take into account the risks arising from the energy sector, and the financial system should be protected from the amplified risks arising from uncontrolled energy price volatility. Moreover, to the extent that investors are increasingly attracted to assets in these sectors, these results have relevant implications for portfolio selection and present opportunities related to risk diversification.