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Early warning systems – anticipation`s factors of banking crises

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Abstract

Banking crises in the last decades have led to the need for early warning systems, who lay in a timely the macroeconomic indicators`weaknesses. Its were designed as instruments for anticipating imminent mass influx of banking crises.
The present paper aims to capture the macroeconomic indicators` impact, that create an effect on the health of the banking system and which historically have shown internationally, episodes of economic and financial collapse.
The reason I chose this theme is because of the importance of prudential supervision in order to ensure the financial stability of the whole banking system, with the help of early warning systems, designed to anticipate the emergence of banking crises.

Keywords: financial stability; banking crisis; early warning systems; prudential supervision; macroeconomic indicators; shocks; risk factors

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1. Introduction

Banking crises in the last decades have led to the necessity of implementing macroeconomic policies and regulations to ensure an effective control in order to achieve stability and viability of the entire banking system. Thus, it is necessary the implementation of early warning systems which support the regulatory authorities and banking supervision.

Early warning systems are the mechanisms that analyzes and transforms information held by financial indicators in the signals concerning the possibility of banking crises by Barbu, Dardac and Boitan (2009). They were originally developed in the United States of America, having meant to predict if and when a specific country can be affected by a financial crisis.

The purpose of the paper is to capture the impact of macroeconomic indicators, which emit signals over the banking system`s health and to provide an overview of the practicalities of the financial crises`s issue and ways of preventing them.

The work includes six sections where I analysed the impact of a potential adverse changes to the macroeconomic framework of the Romanian`s banking system solvency, using as risk factors variables such as monetary policy interest rate, exchange rate, inflation rate, unemployment rate and non-performing loans ratio. The paper ends by presenting research findings and future research directions.

2. Testing a simplified early warning system – case study – Romania: the macroeconomic variables`s impact on the volume of non-performing loans from the banking system development

By its nature, a warning system means a a surveillance device, which aims to enhance market discipline, to ensure the coherence of macroeconomic policies and financial system resilience to shocks.

Having regard to the financial crises of the last decades, it is necessary that the current methodology, which is at the origin of an early warning system`s creation, to be improved. This should include, in addition to the specific economic and financial circumstances of each country, a number of macroeconomic indicators, which historically have shown internationally, episodes of economic and financial collapse by Mishkin (2004), such as: the monetary policy interest rate, unemployment rate, inflation rate, the real exchange rate.

Early warning models of financial crises, including the economic and financial variables that can indicate in a timely the balance of payments vulnerability or a level unsustainable of exchange rate; indicators of macroeconomic imbalances and the weakness of the banking system (e.g., fiscal deficit, the growth rate of domestic credit, increasing the volume of non-performing loans), the overvaluation of exchange rate (the relative price indices, current account deficit, the pace of increase in exports), external vulnerability and the risk of contagion (the ratio of external liabilities and international reserves, the incidence of crises in other countries) by Dardac and Boitan (2009).

Macroeconomic analysis allows the general premises`s evaluation that have affected the non-performing loans ratio`s growth in the banking system, whose variations indicate the health of the entire financial system. Loans and other assets may be classified in the category loans when payment rates, representing the principal and interest, recorded arrears of 90 days[2] or more by Căpraru (2009) .

2 non-performing loans - will include those with a debt of less than 90 days, which in national law are recognised as non-performing when there are clear indications of probability of default (e.g.:bankruptcy).