Faculty of Commerce

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The Relationship between Financial Stability of the Banking Sector and Macroeconomic Performance in Egypt: An Analytical and Empirical Study

Thesis Submitted For the Degree of Doctor in Economics

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Abstract

The thesis aims to study the relationship between bank financial stability and macroeconomic performance in Egypt over the period 2003-2021. It hypothesizes that (1) the Egyptian banking system (EBS) has succeeded in achieving financial soundness, despite many negative global and country-specific shocks, during the aforementioned period; (2) the implementation of Basel III accord has positively affected the performance of the EBS, (3) the Central Bank of Egypt (CBE) has succeeded, to a great extent, in achieving both macroeconomic and bank financial stability during the above mentioned period encompassing the Covid 19 pandemic, (4) bank financial stability and macroeconomic variables in Egypt are interdependent during the period 2011-2021, with a stable relationship. CAMELS framework is used to analyze the performance of the EBS. Moreover, the impacts of the Egyptian banking reform, began in 2004, and the adoption of Basel III accord on the performance of the EBS are explored. The role played by the CBE in achieving macroeconomic and bank financial stability, highlighting employed tools and procedures, is examined. Furthermore, the impacts of global and country-specific shocks (including the global financial crisis during the period 2007-2009, political instability began in 2011, and the Covid-19 pandemic) on the employed variables are also analyzed. The VAR model is applied onto monthly data covering the period starting from January 2011 to December 2021 to explore the relationship between bank financial stability and macroeconomic variables. The non-performing loans (NPL) ratio, an indicator of asset quality, is a proxy variable of bank financial stability. Employed macroeconomic variables include real GDP, consumer prices index (CPI), the real effective exchange rate (REER), the aggregate stock price index (EGX100), and the overnight interbank lending rate (a policy instrument of the CBE). All employed series are found to be stationary in their first difference except for the NPL that is found stationary in level. The joint null hypothesis of no-Granger causality has to be rejected for NPL ratio and CPI inflation rate. The orthogonalized impulse response functions (IRFs) with Cholesky decomposition over 12 months is employed. According to IRFs, NPL ratio significantly rises during the first six months in response to a 1% positive shock in NPL itself, but it does not revert to its equilibrium level. Moreover, an unexpected positive shock of 1% in GDP growth rate and stock returns result in a decrease in the NPL ratio at varying magnitudes and months. In contrast, the NPL ratio increases at varying magnitudes and months in response to an unexpected positive shock of 1% in CPI inflation and the overnight interbank lending rate whereas REER has a slight impact on the NPL ratio according to IRFs. Variance decomposition results reveal that variations of employed variables could be largely attributed to innovations in the variable experiencing the innovation.