Philippine Financial System Macrofinancial Vulnerabilities: Assessing and Forecasting Systemic Risk using LOGIT and VAR

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Abstract:

This paper focuses on assessing and quantifying systemic risk by constructing a model employing multivariate analysis using discrete choice models (LOGIT) for determining the best indicator of systemic events (i.e., financial friction), and Vector Auto Regressions (VAR) for quantifying systemic risk. The study also attempts to forecast of expected shortfalls in the financial system and the macroeconomy during systemic periods. In fulfillment of the objectives of the study, macrofinancial indicators are accounted for as independent variables that signal financial distress. Lastly, this research also aims to conduct a forecast about the effects of systemic events through the integrated model. The researchers believe that the financial systems and the macroeconomy in general are interconnected networks that link one institution to another. Therefore it can be inferred that the effects of financial frictions are not solely borne by a single entity but rather by the system as a whole. Such shocks stemming from financial frictions follow a domino-effect mechanism wherein the impact is carried over to several units of the financial system and the macroeconomy. The 1997 Asian Financial Crisis and the 2007-2009 Global Financial Crises are alarming testaments that the financial systems are in fact interconnected. However the damage several economies had to endure was severe. Thus, the primary motivation of the researchers is to gain a deeper understanding about systemic risk, especially in the Philippine setting, to mitigate the chances of crises from happening again.

Key Words: Systemic Risk; Systemic Event; Financial Crisis; Vulnerability; Financial System.