NEW APPROACHES TO STRESS TESTING THE TURKISH BANKING INDUSTRY

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Abstract - Using novel approaches to stress testing, we examine the sensitivity of conventional and participation banks in Turkey against domestic and international risk shocks for the period 2002M1-2018M12. First, we employ time series based semi-parametric quantile regression technique due to its superiority over others used in current stress tests. It provides more flexibility than linear regression models that require more restrictive assumptions. Moreover, it is more appropriate to model the dynamics of the variables to avoid unreliable results. We also use panel data based semi parametric quantile techniques. Preventing information loss due to aggregation of bank level variables, the semi parametric panel quantile regression is instrumental in measuring risk sensitivity of individual banks. We compare both approaches to stress testing in terms of robustness and reliability.

Keywords – Stress Testing, Turkish Banking Industry, Participation Banking, Semi Parametric Quantile Regression, Credit Risk