ISBN: 978-605-307-583-7

Financial Failure Prediction in Banks for Comparative Empirical Analysis: The Case of European Union Countries and Turkey

Zeynep Turkcan[1]

ABSTRACT

The global financial crisis, which started at the end of 2007, highlighted the importance of early identification of distressed banks. The crisis demonstrated, when problems are detected late, solutions are costing much more. Early prediction of distressed banks makes it possible to reduce the possible costs of financial failure at both macro and micro levels. In this study, in order to estimate the financial failure of banks one year prior and to determine which factors lead to bank failure, a five-stage empirical failure prediction model was implemented using panel data for the 1990-2010 period for banks operating in 27 European Union (EU) countries and Turkey. In order to use it as dependent and independent variables in the model, 81 accounting-based ratios obtained from the DataStream database and 15 macro-economic indicators based on the countries, were provided. For distinguishing distressed banks from undistressed banks in the most accurate way, five different dependent variables were used in the application phase in accordance with the bank failure literature. The independent variables used in the model consist of four different groups: (1) CAMELS indicators, (2) banking sector indicators, (3) country-specific macro-financial indicators and (4) institutional development indicator of countries. A panel logistic regression method was applied to the early warning model to determine which of the independent variables caused the bank failure. According to the results of logistic regression analysis applied for EU banks, it is observed that LE11 indicator (Non-Interest Income to Total Income) is the best independent variable explaining the dependent variable. Therefore, among the banks in the EU, it is more likely that banks failing to obtain more than half of their total income from interest income are distressed. However, in Turkey there are two factors that can affect the failure of Turkish banks. These are LE2 (Net Interest Margin) and LMF3 (Share Price Growth Rate). Giving that LMF3 factor is a macro-economic indicator, it is believed that the factors outside the bank are crucial for the survival of the Turkish banks.

[1] Dr, Dept. of Business, Akdeniz University, Turkey

DOI: 10.19275/RSEPCONFERENCES067