

## **Effects Of Country Risk Forecasts Based On Foreign Trade Performance And Currency Choices In Asset-Liability Management On Banks' Liquidity Performance: An Empirical Analysis**

**Erol MUZIR**

Yalova University,  
Faculty of Economics and Administrative  
Sciences, Yalova, Turkey  
[erol.muzir@yalova.edu.tr](mailto:erol.muzir@yalova.edu.tr)

**Ayberk ŞEKER**

Yalova University,  
Faculty of Economics and Administrative  
Sciences, Yalova, Turkey  
[ayberk.seker@yalova.edu.tr](mailto:ayberk.seker@yalova.edu.tr)

### **Extensive Summary**

The concepts of liquidity, profitability and solvency are among the basic performance criteria of banking industry that refer to important dilemmas concerning bank activities. Banks with a desire to increase their profitability may have to make investments or placements relatively risky assets offering relatively high returns. Any problems with expected cash flows from these asset investments can lead to liquidity bottlenecks and solvency concerns that may result in bankruptcy. At this juncture, macroeconomic views and the extent to which banks could succeed to implement a successful asset-liability management are considered to be effective on this situation.

Banks aiming to continue their operations effectively and efficiently must concentrate on how to protect the rights of parties who provide them with capital and should manage all risks relevant to their operations. This is possible only when banks can correctly identify, measure and may be eliminate their risk exposures.

The foremost purpose of this paper that presents some parametric and non-parametric model proposals towards measuring banks' risk of technical insolvency (failure) as based on their liquidity performance is to discern how specific choices regarding asset-liability structure of banks and country risk predictions concerning overall foreign trade performance affect liquidity position of those banks. Moreover, possible impacts of lending efficiency and capital adequacy on liquidity performance are argued.

The models presented are also expected to throw a light on how to assess technical insolvency risk by measuring liquidity risk. To develop liquidity risk forecasting models in which net cash flow position (positive or negative) is accepted to

be a practical indicator of liquidity performance and some relevant financial ratios mainly concerning asset-liability management choices as well as non-financial information such as length of operating time, separation of public or private bank and separation of domestic or foreign bank, are used as explanatory variables, the binary logistic regression and MARS techniques have been undertaken. For this purpose, some parametric and non-parametric risk estimation models have been developed using the consolidated financial and non-financial data that were reported on a quarterly basis by 26 Turkish and foreign deposit banks within the period between March 2003 and March 2009 to predict changes in the balances of both net cash flows from banking activities and overall net cash flows.

According to the findings of the models developed by undertaking Binary Logistic Regression and Multivariate Adaptive Regression Splines (MARS), it is concluded that foreign trade performance based country risk forecasts are positively correlated with technical failure risk exposure while currency compositions of assets and liabilities are significantly effective on risk level. In addition, we also observe that foreign banks are relatively less exposed to technical failure risk and infer that increasing lending efficiency and better capital adequacy could lead to pretty liquidity performance, as expected. Moreover, it is concluded that private banks are more exposed to liquidity risk as compared to their public counterparts while we have no sufficient findings supporting the opinion that foreign banks have relatively low risk with respect to domestic ones. Additionally, we present some results proving decreases in risk level as banks' industry experience gets longer