ABSTRACT

Systemic risk is a risk of collapse of the financial system that would cause the financial system is not functioning properly. Systemic risk is generally triggered by the failure of a financial institution that will be transmitted to other financial institutions. Measurement of systemic risk in the financial institutions, especially banks is crucial because banks are highly vulnerable to financial crisis. Methods of measurement of systemic risk conditional value-at-risk (CoVaR) introduced by Adrian and Brunnermeier (2011) is a correspondence between the value-at-risk yields obtained conditional on some event observed from a financial institution. The aim of this study was to measure the systemic risk contribution by individual banks and analyze the relationship between risk individuals with systemic risks posed to the financial system when individual banks during distress conditions.

In this study, to estimate the conditional value-at-risk (CoVaR) used quantile regression, where the amount of the quantile can represent CoVaR when distress and CoVaR when conditions are medians. The amount of contribution of a financial institution to systemic risk in the financial system is measured by using a marginal CoVaR (Δ CoVaR), which represents the difference between CoVaR in distress with a median condition. Samples in this study of nine bank has total assets of the largest in Indonesia. This study using purposive sampling method, during the period January 2005 to December 2014. Testing the correlation between VaR and Δ CoVaR in this study using Spearman correlation and Kendall's Tau.

Based on the results of this study indicate that the contribution of high systemic risk during the study period was not owned by the bank that has the largest total assets among sample banks. There are five banks that have a significant correlation between VaR and $\Delta CoVaR$, meanwhile four others banks in the sample did not have a significant correlation. However, the correlation coefficient is below 0,5, which indicates that there is a weak correlation between VaR and $\Delta CoVaR$.

Keywords: systemic risk, conditional value-at-risk (CoVaR), value-at-risk (VaR), quantile regression