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Modeling Variance Break Using GARCH Model: The Case of BİST100 / Varyans Kırılması ve GARCH Modellemesi: BİST100 Örneği

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ABSTRACT

The objective of this study is to assess if there is a variance break on the index of Borsa İstanbul for the period between 2005-2015. With an effort to assess the impact of structural breaks in volatility persistence, the breaks in variance have been detected by using the Iterated Cumulative Sums of Squares (ICSS) algorithm, and dummy variables have been integrated into the models. Empirical findings show that the memory exists for stock market. Further, it has been found that incorporating information into structural breaks in variance improves the accuracy of estimating volatility dynamics and reduces the persistence of volatility effectively.

KEYWORDS Structural breaks; Volatility; Value at risk; Variance break

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