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## The Return and Volatility Dynamics of VIX-ETFs: An Empirical Study of Structural Breaks

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## ABSTRACT

This study examines the existence of multiple structural breaks in the Volatility Index (VIX) – Exchange-traded Fund (ETF) returns. This paper also confirms structural changes in testing VIX-ETFs series means through the Bai and Perron procedure. The work demonstrates the significance of structural changes in the VIX-ETF volatility clustering valuation practice. The results found that the stock market possessed structure breaks and indicated that the stock market was a weak efficient market. These breakpoints will then be incorporated into the GARCH-based models to measure the effect of a given change in the length of volatility, including BP-ARFIMA and BP-ARFIMA-FIGARCH models.

Keywords: VIX-ETFs, Multiple Structural Break, Long Memory

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