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Volume 15, 2005 - [Issue 18](#)

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# Volatility effect of ETFs on the constituents of the underlying Taiwan 50 Index

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Pages 1315-1322 | Published online: 20 Aug 2006

Cite this article <https://doi.org/10.1080/09603100500389630>

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## Abstract

Owing to the growing importance of the Taiwan Top 50 Tracker Fund (TTT), the first and the only Taiwanese Exchange Traded Fund (ETF), this study investigates the change in the volatility of the component stocks of the Taiwan 50 Index after the introduction of TTT. Using the volatility measure proposed by Andersen et al. ([2001](#)) and the unconditional variance of a GARCH model to measure the volatilities of the constituents of the Taiwan 50 Index, the empirical results of this study demonstrate that the volatility of the component stocks increased following the establishment of TTT. The patterns of volatility change do not differ statistically among different size categories. However, the volatilities of the electronic and the financial sector TTT constituent companies increased significantly after the introduction of TTT, while the volatility of companies in the mixed sector reduced.

# Acknowledgements

The authors would like to thank an anonymous referee for many helpful comments and the National Science Council in Taiwan for financial support (Project #: NSC-94-2416-244-007).

# Notes

<sup>1</sup> To save space, the detailed volatility tables for each component stock in pre- and post-TTT periods are not provided here, but are available upon request.

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