Predictive power of implied volatility of structured call warrants: Evidence from Singapore

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Abstract
This paper examines the information content of implied volatility of structured call warrants in the Singapore Stock Exchange. The study is among the first to examine the implied volatility of equity options (structured call warrants) outside the United States. Using a daily dataset for 252 trading days between August 1, 2014 and July 31, 2015, we test whether implied volatility is an unbiased estimate of realized volatility (RV). In other words, we ask whether implied volatility contains information on future RV, and scrutinize the efficiency of implied volatility and its predictive power compared to historical volatility (HV). Our findings suggest that although implied volatility does contain some relevant information about future volatility, it remains a biased forecast of RV. The efficiency of implied volatility is trivial, and its predictive power is not superior to HV.

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Cited References: 23
Showing 23 of 23

(From Web of Science Core Collection)
1. **Pricing of Options and Corporate Liabilities**
   By: Black, F.; Scholes, M.
   Journal of Political Economy Volume: 81 Issue: 3 Pages: 637-654 Published: 1973

2. **The Informational Content of Implied Volatility**
   By: Canina, L.; Figlewski, S.
   Review of Financial Studies Volume: 6 Issue: 3 Pages: 659-681 Published: 1993

3. The information content of option-implied volatility for credit default swap valuation
   By: Cao, Charles; Yu, Fan; Zhang, Zhaodong
   Journal of Financial Markets Volume: 13 Issue: 3 Pages: S21-S43 Published: AUG 2010

4. **Who Knows More about Future Currency Volatility?**
   By: Charoenwong, Charlie; Jenwittayaroje, Nattawut; Law, Buen Sin
   Journal of Futures Markets Volume: 29 Issue: 3 Pages: 270-295 Published: MAR 2009

5. **The Information Content of Model-Free Implied Volatility**
   By: Cheng, Xin; Fung, Joseph K.W.
   Journal of Futures Markets Volume: 32 Issue: 8 Pages: 792-806 Published: AUG 2012

6. **Information-Content of Option Prices and a Test of Market Efficiency**
   By: Chiras, DP; Manaster, S.

7. New evidence on the implied-realized volatility relation
   By: Christensen, B. J.; Hansen, C. S.
   The European Journal of Finance Volume: 8 Issue: 2 Pages: 187-205 Published: 2002
   URL: http://dx.doi.org/ezaccess.library.uitm.edu.my/10.1080/13518470110071209

8. The relation between implied and realized volatility
   By: Christensen, B.J.; Prabhala, NR

9. **Stock-Market Volatility and the Information-Content of Stock Index Options**
   By: Dai, T.; Lewis, CM

10. Title: [not available]
    By: Hull, J. C.
    Options, futures, and other derivatives Published: 2009
    Publisher: Pearson, USA

11. **The Model-Free Implied Volatility and Its Information Content**
    By: Jiang, G.J.; Tian, YS
    Review of Financial Studies Volume: 18 Issue: 4 Pages: 1305-1342 Published: WIN 2005

12. **Predicting Volatility in the Foreign-Exchange Market**
    By: Jorion, P
    Journal of Finance Volume: 50 Issue: 2 Pages: 507-528 Published: JUN 1995

13. **Forecasting Stock-Return Variance - Toward an Understanding of Stochastic Implied Volatilities**
    By: Lamoureux, CG; Lastrapez, WD
    Review of Financial Studies Volume: 6 Issue: 2 Pages: 239-326 Published: 1993

14. **Standard Deviations of Stock-Price Ratios Implied in Option Prices**
    By: Latane, HA; Rendleman, RJ
    Journal of Finance Volume: 31 Issue: 2 Pages: 369-381 Published: 1976

15. **Stock Return Dynamics, Option Volume, and the Information Content of Implied Volatility**
    By: Mayhew, S.; Stivers, C.
    Journal of Futures Markets Volume: 23 Issue: 7 Pages: 615-646 Published: JUL 2003

16. Title: [not available]
    By: McHattie, A.
    The investor's guide to warrants: Capitalize on the fastest growing sector of the stock market Published: 1996
    Publisher: Pitman Publishing, London

17. **Trade Openness and Stock Market Volatility in the ASEAN-5 Countries: New Evidence Using SUR**
    Times Cited: 3
   By: Ryu, Doojin
   EMERGING MARKETS FINANCE AND TRADE Volume: 48 Supplement: 2 Pages: 24-39 Published: JUL-AUG 2012
   Times Cited: 36

19. Tests for unit roots: AMonte Carlo investigation
   By: Schwert, G. William.
   Times Cited: 13

20. The predictive power of implied volatility: Evidence from 35 futures markets
    By: Szakmary, A.; Ors, E.; Kim, JK; et al.
    JOURNAL OF BANKING & FINANCE Volume: 27 Issue: 11 Pages: 2151-2175 Published: NOV 2003
    Times Cited: 82

21. The information content of implied volatilities and model-free volatility expectations: Evidence from options written on individual stocks
    By: Taylor, Stephen J.; Yadav, Pradeep K.; Zhang, Yuanyuan
    JOURNAL OF BANKING & FINANCE Volume: 34 Issue: 4 Special Issue: SI Pages: 871-881 Published: APR 2010
    Times Cited: 60

22. Title: [not available]
    By: Yeandle, M.; Mainelli, M.
    THE Global financial centres index 10 Pages: 2016 Published: 2015
    Publisher: Z YEN Limited, London
    Times Cited: 1

23. The predictive power of the implied volatility of options traded OTC and on exchanges
    By: Yu, Wayne W.; Liu, Evans C. K.; Wang, Jacqueline W.
    JOURNAL OF BANKING & FINANCE Volume: 34 Issue: 1 Pages: 1-11 Published: JAN 2010
    Times Cited: 30

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