Quantitative Finance ›
Volume 4, 2004 - Issue 5: Special Issue Title: New Directions in Option Pricing

Original Articles

Delta-hedging vega risk?

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Pages 559-579 | Received 05 Jan 2004, Accepted 18 Jul 2004, Published online: 19 Jun 2011

Abstract

In this article we compare the profit and loss arising from the delta-neutral dynamic hedging of options, using two possible values for the delta of the option. The first is the Black–Scholes implied delta, while the second is the local delta, namely the delta of the option in ted to the market s local delta should p ast sell-offs, and a wo sell-offs. Since slo or slow sell-offs in plied nega a better hedge th same conclusi ults using both sim large negative over, we

check numerically that the conclusions we draw are true when transaction costs are taken into account. In the last section we discuss the case of barrier options.

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Acknowledgments

The author wishes to thank Rama Cont and Paul Besson for helpful discussions, Ekaterina Voltchkova for her assistance with programming the codes for the barrier options, and Christian Boely for a thorough revision of the manuscript.

Notes

Vähämaa [55] assesses the significance of the differences by a bootstrapping method with 1000 resamplings.

Note the difference between these conclusions and the implications of section 2.2 (see also the discussion in section 3.5).

We shall take τ as being equal to one market day in the numerical experiments of sections 4 and 5.

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