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# Delta-hedging vega risk?

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## 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

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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.

## Acknowledgments

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## 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  $\tau$  as being equal to one market day in the numerical experiments of sections 4 and 5.

International Financial Futures and Options Exchange, <http://www.liffe-data.com>.

Deutsche Terminbörse  
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As explained in the introduction, the difference between the two schemes is due to the fact that the 'naïve' scheme does not take into account the difference between the two currencies. This difference will be considered in the next section.

The first part of the paper will be devoted to the study of the difference between the two schemes. The second part will be devoted to the study of the difference between the two schemes.

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