

**Math515/Stat540**  
**Homework assignment 5**

Spring 2009  
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I. **Björk's book:** 7.4, 7.5, 7.6, 7.7, 7.9, 9.5, 9.6.

II. **Shreve Vol. II:** 5.4 and 5.9.

III. **More about Greeks.**

- (a) Calculate the delta of an at-the-money 6-month European call option on a non-dividend paying stock when the risk-free interest rate is 10% per annum and the stock price volatility is 25% per annum.
- (b) Is there a (speculative) situation where you would recommend to invest in a portfolio with large positive Vega?