Financial Risk Management

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Richting	<u>Wiskunde</u>
Jaar	<u>MWIS</u>

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- 1. A stock currently stands at 350. The risk free rate is 0,50% per annum and the dividend yield is 4%. What should the future price for a 3-month contract be?
- 2. A portfolio exists of stocks and options on these stocks. It has $\delta, \gamma \delta, \gamma$ and vv given. 1m ATM straddle and 1Y ATM straddle are also given. What position in the underlying stock, 1m ATM straddle and 1Y ATM straddle, should I take to be $\delta, \gamma \delta, \gamma$ and vv neutral. Is the $\theta\theta$ of my portfolio positive or negative?
- 3. Value a European option on a CHF/USD. Would an American option exercise early?
- 4. How do we construct a 25 delta butterfly. Why do option traders trade actively in butterflies. Why is this used by hedgers?
- 5. Why isn't VaR always a useful estimate? What alternative is there. Give an example where there is a big difference between the two.
- 6. Value a swap for a company that defaults after 6 years. (question 20)
- 7. A Malaysian bank decides to create a 10 year principal protected note on a non dividend paying stock by offering the investor a zero coupon bond plus a bull spread created from calls. BankYY enters in this agreement, but wants to make 4% up front. What is the maximum ratio of the higher strike price to the lower strike price in the bull spread? (all necessary values have been given)

Categorieën:

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