Quiz 26 for Dec 5

Started: Dec 2 at 2:55pm

Quiz Instructions

Complete this quiz by 11:00 a.m. on Monday December 5.

Question 1

1 pts

A firm has risky assets worth A_0 = $10 million that have a rate of return volatility of $\sigma = 0.40$. The firm pays out dividends at the rate of $\delta = 0.01$. It has a single issue of zero-coupon debt that promises to pay $8 million in $T = 4$ years. If the continuously-compounded riskfree rate equals $r = 0.03$, what is this debt's promised yield to maturity, $y(0,T)$?

State your answer as a continuously-compounded percentage rate to 2 decimal places, e.g., 6.43 .

8.9944

Question 2

1 pts

Corporate debt contracts often contain provisions called "covenants" that are intended to protect the debt holders from corporate actions that can harm the debt's value. Based on insights of the Merton model, which of the provisions listed below are likely to be a debt covenant?

- [x] a limit on the amount of dividends that can be paid to shareholders.
- [x] restrictions on issuing new shares of stock.
- [ ] a requirement that the debt be repaid before the firm merges with another firm.
- [x] restrictions on the riskiness of the firm's business activities.

Question 3

1 pts

Moody's rates as Baa the debt of two different firms because its analysis finds that both debt issues have the same probability of default and loss given default. However, the debt of one firm has a significantly higher credit spread than the credit spread of the debt of the other firm.

- ○ It is likely that the firm with the lower credit spread is more likely to default during an economic downturn compared to the firm with the higher credit spread, even if they both have the same overall probability of default and loss given default.
- ○ Given that they have the same credit rating, the debt of the firm with the higher credit spread is likely to be the better investment.
- ○ Moody's is likely to have erred in setting its credit ratings because investors do not agree with its assessments of the two firms' credit risks.
- ◉ It is likely that the firm with the higher credit spread is more likely to default during an economic downturn compared to the firm with the lower credit spread, even if they both have the same overall probability of default and loss given default.

Question 4

1 pts

A firm has a constant risk-neutral default intensity of $\lambda = 0.08$. The firm's risk-neutral survival probability over the next 3 years, $\pi(0,3)$, equals

State your answer to 3 decimal places, e.g., 0.742 .

0.7866

Question 5

1 pts

Ask one or more questions or make one or more comments regarding the material covered in this class.

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12pt Paragraph B I U A T²

This is the question regarding the previous topics. Is there other types of Options? I have heard that there is one kind of Options called Asian Option, can I have more details about those kinds of non-european or american options, and how should we price those options?

Thank you.

p

49 words

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Quiz saved at 6:22pm

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