



Strathmore
UNIVERSITY

SCHOOL OF FINANCE AND APPLIED ECONOMICS
BACHELOR OF BUSINESS SCIENCE FINANCIAL ECONOMICS
BACHELOR OF BUSINESS SCIENCE FINANCE
END OF SEMESTER EXAMINATION

BSF 4126: FINANCIAL RISK MANAGEMENT

DATE: Tuesday, 17th July 2018

Time: 2 Hours

Instructions

1. This examination consists of **FIVE** questions. Answer **Question ONE (COMPULSORY)** and any other **TWO** questions.

Question 1: (30 Marks)

As the CRO of a commercial bank, how will you explain the following to the intern joining your team giving clear examples:

- a) Goals of Risk Management process. **(4 marks)**
- b) Properties of coherent risk measures **(8 marks)**
- c) Systematic and idiosyncratic risks **(4 marks)**
- d) Referring to the attached cases of Northern Rock, Japan and Argentina, describe the causes of financial crises. **(9 marks)**
- e)

An investor holds a portfolio of \$100 million. This portfolio consists of A-rated bonds (\$40 million) and BBB-rated bonds (\$60 million).

Assume that the one-year probabilities of default for A-rated and BBB-rated bonds are 3% and 5%, respectively, and that they are independent.

If the recovery value for A-rated bonds in the event of default is 70% and the recovery value for BBB-rated bonds is 45%, what is the one-year expected credit loss from this portfolio?

(5marks)

Question 2: (20 Marks)

- a) Use relevant examples differentiate between Scenario analysis, Stress testing and Sensitivity analysis as risk measurement tools **(10 marks)**
- b) Distinguish between VaR and Expected shortfall as measures of Risk. **(2 marks)**
- c) Using the table below, given in a report presented to the Bankinter CRO, how will you interpret the figures in the above table? **(8 marks)**

Risk factor VaR	
Interest rate VaR	0.57
Equity VaR	0.44
Exchange rate VaR	0.03
Volatility VaR	0.44
Credit VaR	0.00
Total VaR	0.61

Figures in million euros

Confidence level 95% and time horizon of one day

Question 3: (20 Marks)

- You have been asked by the CRO to focus on one main risk for the commercial bank. Giving clear reasons, justify the CRO's choice of the risk. **(5 marks)**
- Distinguish between external and internal ratings of credit risk models **(5 marks)**
- Given the attached cases on credit facility proposals, giving a step by step explanation, justify the conclusion you will make as a credit officer of Bankinter. **(10 marks)**

Question 4: (20 Marks)

- Distinguish between traditional and current risk vision **(6 marks)**
- Discuss the main drivers of risk management **(4 marks)**
- Below is the total VaR reported for Goldman Sachs inventory in its 2017 Annual Report. The table represents average daily VaR by risk category. Using the figures provided or otherwise, discuss the interpretation you will make as member of the Goldman Sachs Market Risk Management team. **(10 Marks)**

\$ in millions	Year Ended December		
	2017	2016	2015
Interest rates	\$ 40	\$ 45	\$ 47
Equity prices	24	25	26
Currency rates	12	21	30
Commodity prices	13	17	20
Diversification effect	(35)	(45)	(47)
Total	\$ 54	\$ 63	\$ 76

Question 5: (20 Marks)

- Explain the difference between Operation and Liquidity risk. **(4 marks)**
- Explain two main differences between the Operation risk management and Operation risk measurement. **(4 marks)**
- What operation risk events are indicated by the Basel committee **(8 marks)**
- Discuss two main critical success factors of an ERM system. **(4 marks)**

END
GOOD LUCK