



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)**

**MAIN /BUNGOMA /WEBUYE /NAIROBI CAMPUS**

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR  
THIRD YEAR SPECIAL/SUPPLIMENTARY EXAMINATIONS  
FOR THE DEGREE  
OF  
BACHELOR OF COMMERCE**

**COURSE CODE: BCF 336**

**COURSE TITLE: FINANCIAL RISK MANAGEMENT**

**DATE: TEUSDAY, 26<sup>TH</sup> JULY 2022**

**TIME: 11-1 PM**


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**INSTRUCTIONS TO CANDIDATES**

Attempt QUESTION ONE and any other two questions

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over. 

## **QUESTION ONE: (30 MARKS)**

### **CASE: Bankers Trust**

Bankers Trust (BT) was sued by four of its major clients -Federal Paper Board Company, Gibson Greetings, Air Products and Chemical, and Procter & Gamble -who asserted that Bankers Trust had misled them with respect to the riskiness and value of derivatives that they had purchased from the bank. The first three cases were settled out of court for a total of \$93 million. The \$195 million Procter & Gamble suit was settled at a net gain to P&G of \$78 million. The most lasting damage, however, was to BT's reputation.

In the mid-1990s, Bankers Trust (now part of Deutsche Bank) was one of the leading bank in the marketing of innovative financial products. The bank prided itself on its superior financial abilities and on its leading edge risk management with respect to its derivatives trading. Yet Bankers Trust's reputation took a pounding after the bank was sued by several customers alleging various forms of fraud and racketeering with respect to derivatives transactions they had entered into with the bank. Several of these suits have since been settled both in and out of court, costing the company millions of dollars in settlement and possibly much more in damage to its reputation.

Why did these problems arise? The root cause appears to have been that BT's clients felt that BT had unfairly exploited their comparative lack of sophistication in handling these sophisticated derivative products. For example, Procter & Gamble (P&G), the client whose case received the most publicity, had entered into complex interest-rate derivatives transactions with the bank. These transactions represented a bet on P&G's part that U.S. interest rates would remain stable, or decline, over the transaction period.

If interest rates rose, however, P&G would lose a substantial amount of money. In addition, P&G made its bets more aggressive by leveraging its positions twenty-to-one. The transactions lost a substantial amount after the US Federal Reserve Board raised interest rates repeatedly in 1994. P&G subsequently sued BT for \$195 million, claiming that the bank had failed to fully inform it with respect to the risk involved in the transactions. BT countered that it was not acting in an advisory (or "fiduciary") role to P&G, since the firm had retained its own outside experts to create interest rate forecasts. It also claimed that P&G's reputation for using cutting-edge financing techniques cast doubt on its claims.

This appears to be an example of poor stakeholder management. In focusing on increasing profits, Bankers Trust didn't pay adequate attention to the fact that its clients were vital to its business. Even if it did nothing dishonest, it failed to serve its clients in terms of making them feel informed and at ease with their deals.

October 1994: Procter and Gamble Co. sues Bankers Trust for \$195 million (the company recorded a \$102 million charge against fiscal 1994 earnings to cover losses from derivatives transactions), alleging that BT misled it with regard to the value and risks of its derivatives positions.

December 1994: BT signs consent decrees with federal securities regulators and agrees to pay a \$10 million fine over allegations that it wilfully gave Gibson Greetings inaccurate values for its derivatives portfolio, causing Gibson to violate SEC laws. BT neither admits nor denies guilt.

October 1995: U.S. District Judge John Feikens allows P&G to add civil racketeering charges to its suit, which will allow the company to seek treble damages. January 1996: Bankers Trust settles with Air Products and Chemicals, Inc. for \$67 million, 63% of the \$107 million in losses in fiscal 1994 that Air Products wrote off in connection with interest-rate swaps the company entered into with Bankers Trust.

May 1996: Bankers Trust and Procter & Gamble reach an out-of-court settlement.

**Lessons to be learned:**

Give adequate attention to all aspects of risk. An enterprise risk management program must balance the "hard side" of risk management (including policies, limits and systems) and the soft side (including people, culture and incentives).

*Honesty is always the best policy*

Management should focus on integrity and openness in dealing with customer complaints and public perception: if the allegations brought by P&G had any basis in reality, Bankers Trust did an inadequate job.

*Align incentives properly*

Performance pressure may encourage participation in deals that ultimately backfire, especially if incentives and oversight are not aligned properly. Despite the urgency of the rush to sell a deal or gain a client, proper thought needs to be given to the long-term wisdom of all aspects of the deal.

*Practice good stakeholder management*

Clients are stakeholders, too! In the rush to create profits for shareholders, attention must still be given to the clients who are integral to the business.

**Required:**

Identify and explain from the above case study, the different types of risks faced by Bankers Trust. (30 marks)

**QUESTION TWO (20 MARKS)**

- i) Company A and B both want to raise £100m ten years loan. Company A wishes to borrow at fixed rate interest rate as the Treasurer wants certainty in its future liabilities. Company B believes that interest rate will fall and prefers floating rate borrowing.

Company B has a better credit rating and can borrow at better rates, and these facts are tabulated below:-

**Fixed interest Floating Rate**

Company A 10% Libor + 2.5%

Company B 8% Libor + 1.5%

Arrange for an interest swap between the two Companies, assuming any gain is shared equally (10 marks)

- ii) Write down the Black Scholes option pricing model to value a call option and explain clearly how the arguments in the model affect the value of a call option. **(10marks)**

**QUESTION THREE (20 marks)**

Derive using your own example to explain briefly whether the following hold in practice:

- (i) The International Fisher Effect
- (ii) The Interest Rate Parity Theorem
- (iii) The Covered Interest Rate Theory
- (iv) The Fisher effect **(5 marks each)**

**QUESTION FOUR (20 marks)**

- i) Differentiate between transaction, translation and economic risk in the foreign exchange market. **(9marks)**
- ii) Explain the differences of hedging through a money market hedge and a forward contract. **(3 marks)**
- iii) Distinguish between
  - a) Systematic, or market risk, and
  - b) Unsystematic, or specific risk. **(3 marks)**
- Iv) Discuss the major difficulties inherent in the practical application and use of CAPM (SML) **(5 marks)**