

Managing Risk in Banking

FIN 204 Lecture 6.1.

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- 1 Managing Credit Risk
- 2 Managing Interest Rate Risk
- 3 Additional Risk-Managing Strategies

Managing Credit Risk

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How to alleviate these problems? Several methods:

Methods to Cope With Credit Risk Problems

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- ④ **Other methods:**
 - Long-term relationships: credit history; loan commitment
 - Compensating balance: a share of the credit staying at the bank
 - Credit rationing: restricting the amount of credit rather than increase the interest rate

Why would the bank rather not give a credit than increase the interest rate for a risky client?

Managing Interest Rate Risk

Intro

What is the interest rate risk?



Since 1980's: increased volatility.

What does this mean for the bank revenues and costs? For ROA, ROE?

Managing Interest Rate Risk

Risk within the bank

FIRST NATIONAL BANK			
Assets		Liabilities	
Rate-sensitive assets	\$20 million	Rate-sensitive liabilities	\$50 million
Variable-rate and short-term loans		Variable-rate CDs	
Short-term securities		Money market deposit accounts	
Fixed-rate assets	\$80 million	Fixed-rate liabilities	\$50 million
Reserves		Checkable deposits	
Long-term loans		Savings deposits	
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Before managing: analyze!

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Gap analysis; Duration analysis

Managing Interest Rate Risk

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Impact on profit = $GAP \cdot \Delta \text{Interest rate}$.

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$$100 \cdot [-(-0.05) \cdot (3)] = +15 \text{ mln.}$$

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$$\Delta(\text{Liabilities}) = \text{Liabilities} \cdot [-\Delta(\text{Interest rate}) \cdot (\text{Duration})] = \\ 90 \cdot [-(-0.05) \cdot (5)] = +22.5 \text{ mln.}$$

Net worth (capital) will change by $\Delta(\text{Assets}) - \Delta(\text{Liabilities}) = -7.5 \text{ mln.}$

Additional Risk-Managing Strategies

Off-Balance Sheet Activities

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Activities that affect bank profits but do not appear on the balance sheet.

Examples: Fees on loans, sales of loans, foreign exchange transactions

Managing Risk in Banking

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- ① Lending to consumers and firms is risky: 3 problems
 - Adverse selection
 - Moral hazard
 - Asymmetric information
- ② Market interest rates also expose the bank to risks
 - Gap analysis
 - Duration analysis
- ③ To reduce risk and increase profit, the bank engages in activities that do not appear on its balance sheet