



Subject: Basel

Chapter: Unit 2

Category: Practice questions

1. The derivatives book of an international bank contains \$300 million of notional value of interest rate swaps with \$100 million each having remaining maturity of 0.5, 1.5 and 2.5 years. Their market value is \$30 million. The book also has \$300 million of foreign exchange swaps with a similar maturity profile and a market value of -\$10 million. All counterparties are private corporations, so the risk weight is 100 percent. Calculate the credit equivalent amount under the exposure and original exposure method.

2. The assets of Blue Star Bank consist of \$20 million in U.S. Treasury bills, \$20 million in insured mortgages, \$50 million in uninsured mortgages, and \$150 million in corporate loans. Using the risk weights, calculate the bank's risk-weighted assets.

3. Michigan One Bank and Trust has entered a \$200 million interest rate swap with a corporation. The remaining maturity of the swap is six years. The current value of the swap is \$3.5 million. Using the table below to find the add-on factor for the interest rate swap, the equivalent risk-weighted assets (RWA) under Basel I is closest to:

Add-On Factors as a Percentage of Principal for Derivatives

Remaining Maturity in Years	Interest Rate	Equity
< 1 year	0.0	6.0
1 to 5 years	0.5	8.0
> 5 years	1.5	10.0

- A. \$3,000,000
- B. \$3,250,000
- C. \$3,500,000
- D. \$6,500,000

4. Saugatuck National Bank uses the internal model-based approach to set market risk capital as prescribed by the 1996 Amendment to the 1988 Basel Accord. The bank has backtested its 99%, one-day VaRs against the actual losses over the last 250 trading days. Based on the results of the backtesting, the bank recorded 11 exceptions. Based on these results, the multiplicative factor (m_c) in the model should be set:

- A. less than 3
- B. equal to 3
- C. between 3.1 and 3.9
- D. equal to 4

5. Assume Blue Star Bank has a \$150 million loan to an A-rated corporation. The PD is 0.1% and the LGD is 50%. Based on Figure 57.6, the WCDR is 3.4%. The average maturity of the loan is 2.5 years. Calculate the RWA using the IRB approach and compare it to the RWA under Basel I.

6. The business indicator (BI) component in the standardized measurement approach (SMA) calculation for a bank with a BI of 13 billion will be closest to:

- A. 1.43 billion
- B. 1.91 billion
- C. 2.43 billion
- D. 13.00 billion

7. If Delta Bank has negative revenue in any business line, it can offset capital charges that year up to a maximum benefit of zero capital. Beta Bank has had the following revenue (in \$100 millions) for the past three years for its two lines of business: corporate finance and retail banking.

Business line	Year 1	Year 2	Year 3
Corporate Finance	5.	10.	15.
Retail Banking	5.	25.	5.

Calculate the operational risk capital requirement under TSA.

8. The Standardized model for market risk charges differs from the internal models approach in that the standardized model:

- A. Sums up market risk across market risk categories, whereas the internal models approach uses a penalty multiplier on the average VaR
- B. Focuses solely on specific risk charges, whereas the internal models approach sums up market risk across market risk categories
- C. Uses a penalty multiplier on the average VaR, whereas the internal models approach sums up market risk across market risk categories
- D. Sums up market risk across market risk categories, whereas the internal models approach focuses solely on specific risk charges

9. For the purpose of calculating the standardized approach for operational risk capital, banks [based on their size of business indicator (BI) component] are divided into three buckets. Which of the following buckets would not consider internal losses?

- A. BI Bucket 1 only
- B. BI Bucket 3 only
- C. BI Bucket 2 only
- D. BI Buckets 1 & 2

10. The first Basel Accord:

- A. Had fairly stringent guidelines for calculating market risk which did not accurately reflect the true risk to capital
- B. Did not include any consideration of operational risk
- C. Was created in 1978 by the Bank for International Settlements (BIS)
- D. Failed to address new and innovative risk management vehicles and methods for managing market risk

11. According to the Basel Accord, if the number of exceptions to the back – testing of value at risk (VaR) models exceeds four at the 99% confidence level, which of the following may occur (given 250 data points)?

- A. Regulators may decrease the multiplier
- B. Risk managers may be decertified
- C. Banks may ignore the model for future VaRs
- D. Regulators may increase the multiplier



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