Case studies: finance, foreign exchange and interest rates assignment

As location arbitrage occurs, Orleans Bank will increase its ask price while Kansas Bank reduces its bid price, causing a realignment of the exchange rates. 4. Covered Interest Arbitrage. Assume the following information: British pound spot rate = $1. 58 British pound one-year forward rate = $1. 58 British one-year interest rate = 11% U. S. One-year interest rate = 9% Explain how U. S. Investors could use covered interest arbitrage to lock in a higher yield than 9 percent. What would be their yield? Explain how the spot and forward rates of the pound would change as covered interest arbitrage occurs.

ANSWER: U. S. Investors would purchase pounds for $1. 58 in the spot market, invest the pounds at 11 percent, and simultaneously sell pounds forward at $1. 58. The yield would be 11 percent. As covered interest arbitrage occurs, the spot rate of the pound will increase ND the forward rate will decrease. 5. Covered Interest Arbitrage. Assume the following information: Mexican one-year interest rate = 15% U. S. One-year interest rate = 11% If interest rate parity exists, what would be the forward premium or discount on the Mexican pesos forward rate?

Would covered interest arbitrage be more profitable to U. S. Investors than investing at home? Explain. ANSWER: If interest rate parity exists, the forward premium (discount) is: p = 1 + . 11 – -3. 47% (discount of 3. 47%) Covered interest arbitrage would not be feasible since the forward discount offsets he higher interest rate in Mexico. U. S. Investors could earn 9 percent by investing in the United States, which is the same yield they would earn using covered interest arbitrage. 6. Interest Rate Parity.

Determine how the forward rate premium would be affected if the foreign interest rate is higher, holding the U. S. Interest rate constant, under conditions of interest rate parity. ANSWER: The forward premium on a foreign currency would be lower if the foreign interest rate is higher, because there would be more of an incentive for U. S. Investors to invest in the foreign interest rate and sell hat currency forward at the end of the investment period. CHAPTER 19 1. Net Interest Margin. Suppose a bank earns $201 million in interest revenue but pays $156 million in interest expense.

It also has $800 million in earning assets. What is its net interest margin? ANSWER: Net interest margin = Interest revenues – Interest expenses Assets $201 million – $156 million $800 million 5. 625% has $17 billion invested in assets, what is its return on assets? ROAR = Net profit after taxes Total assets $169 million $17 billion 3. Calculating Return on Equity. If a bank earns $75 million net profits after tax and has $7. Billion invested in assets and $600 million equity investment, what is its return on equity? ANSWER: ROE = Net profit after tax Equity = 12. % 4. Managing Risk. Use the balance sheet for San Diego Bank in Exhibit A (below and next page) and the industry norms in Exhibit B (page following Exhibit A) to answer the following questions: a. Estimate the gap and determine how San Diego Bank would be affected by an increase in interest rates over time. ANSWER: Gap = Rate-sensitive assets – Rate-sensitive liabilities = $0 – $18 billion = -$18 billion The bank would be adversely affected by rising interest rates. . Assess San Diego Banks credit risk. Does it appear high or low relative to the industry?

Would San Diego Bank perform better or worse than other banks during a recession? ANSWER: The bank has a greater proportion of commercial and consumer loans than the industry average, and therefore appears to have greater default risk. C. For any type of bank risk that appears to be higher than the industry, explain how the balance sheet could be restructured to reduce the risk. ANSWER: The bank could reduce its interest rate risk by using floating-rate loans and by trying to attract some funds through medium- ERM (one- to five-year) CDC.

Determine the relationship between the interest rate and Montana's stock return by assessing the regression coefficient applied to the interest rate. Is the sign of the coefficient positive or negative? What does it suggest about the banks exposure to interest rate risk? Should Montana Bank be concerned about rising or declining interest rate movements in the future? ANSWER: The coefficient for the market variable is 0. 38, while the coefficient for the interest rate variable is -1. 15. The t-statistics for the coefficients suggest significance at the 0. Level for the market variable, and at the suggests that 75 percent of the variation in Montana's stock returns can be explained by the market and interest rate variables. The sign of the interest rate coefficient is negative, which implies a negative relationship between the interest rate movements and the stock returns of Montana Bank. Therefore, Montana Bank would be concerned about a potential increase in interest rates. Some models use the change in the interest rate level rather than the interest rate level itself, but this example simply illustrates how the bank could assess exposure to economic variables.