



### EXAMPLE SERIES NO. 3 FORWARD FOREIGN EXCHANGE TRANSACTIONS

1. Calculate the forward rates for all maturities, knowing the current spot rate and swap rate quotes. Also calculate the percentage annualized premium or discount of the USD.

CZK/USD	22.240	22.259
14d	10	12
2m	19	25

JPY/USD	117.940	117.952
1m	122	117
3m	138	129

2. Mlékárna Kunín, a.s. exported milk rice to Sweden for 2.3 million CZK. SEK. Payment for the export will be received in 30 days. The current spot rate of CZK/SEK is 2,932-2,947. The company's financial manager is concerned about the depreciation of the SEK against the CZK and therefore enters into a forward transaction. The current 1m swap rate is 32 - 27. Plot the evolution of the unhedged export income in CZK over the exchange rate range 2.8 to 3.0 CZK/SEK and the evolution of the export income hedged by the forward. Define in which range of exchange rates does the forward bring Kunín Dairy a profit compared to the unhedged position and in which range a loss.
3. A foundry in Slovakia imports aluminium from Ukraine. The total delivery price that the importer has to pay to the Ukrainian producer is CZK 3 million. USD and the maturity is 60 days. As a result of concerns about the appreciation of the USD, the Slovak foundry decides to fix the total Euro cost of the import using a forward trade and not to speculate on the appreciation of the USD. The relevant two-month forward exchange rate is 1.224 USD/EUR. Define over what range of exchange rates the forward makes a gain relative to the unhedged position and over what range it makes a loss.
4. Budějovický Budvar, n.p. exported 1000 hl. of its lager to Germany. The price of the beer was EUR 80 000. Payment for the export will be received in 30 days. The current spot exchange rate CZK/EUR is 26,32 - 26,47. The company's financial manager is concerned about the depreciation of the EUR against the CZK and therefore enters into a forward trade. The current 1m swap rate is 32 - 27. Plot the evolution of the unhedged export income in CZK over the exchange rate range 25 - 27 CZK/EUR and the evolution of the export income hedged by the forward. Define in which range of exchange rates

Budějovický Budvar makes a profit on the forward position compared to the unhedged position and in which range it makes a loss.