Hedging with currency futures

Foreign exchange risk can pose a significant risk for any business or individual that transacts in more than one currency. When a firm’s revenue is denominated in a foreign currency, exchange risk exists. Other times, an individual may own assets denominated in a foreign currency, but does not wish to be exposed to fluctuation in the exchange rate. An appropriate hedging strategy can help manage these types of risks.

Stabilizing earnings and cash flows

A hedging strategy aims to minimize exposure to currency fluctuations and provide stability to future earnings and expected cash flows. The objective of a proper hedge is to eliminate the uncertainty of futures transactions denominated in a foreign currency, not to maximize profits from currency speculation. A successful hedge will therefore not produce excess returns, but will protect the hedger against losses resulting from unfavourable exchange rate fluctuations.

A case study

Consider a Canadian company that exports manufactured goods to the U.S. Inventory is priced in Canadian dollars, while the finished products sold in the U.S. are paid for in U.S. dollars. Since the costs are transacted in one currency and the receivables in another the company is exposed to significant currency risk (and in this case, to an appreciating Canadian dollar against the U.S. dollar). As a result, the company decides to implement a hedging strategy employing Canadian dollar futures contracts. It anticipates the basis in October to be $1 under. With the data, the company calculates its purchasing price in October to be $104.00 (futures price of $95 minus the anticipated basis of $1 under).
On September 1, the Canadian export company purchases inventory for C$1,200,000, which it expects to sell in the U.S. next month for US$1,350,000. The Canadian dollar is trading at US$0.90. If the Canadian dollar strengthens between September 1 and the time the inventory is sold, the C$300,000 in anticipated profit will decline.

The size of the Canadian dollar futures contract is C$100,000 per contract. The export company decides to purchase 15 contracts of December Canadian dollar futures, to hedge the anticipated C$1,500,000 of revenue at the current price of .9000. This will effectively "lock in" that exchange rate for next month.

If the Canadian dollar appreciates between the time the hedge was entered and the time the sale is finalized, the profit on the futures transaction will offset any decline in Canadian dollar revenue. Conversely, if the Canadian dollar declines in value, revenue will increase but will be offset by a loss on the futures transaction.

When the firm receives payment for the inventory and converts the U.S. dollars to Canadian dollars, it will simultaneously sell the 15 December Canadian dollar futures contracts at the market. In this case, the exchange rate increased to US$.9300 over the life of the hedge.

The Canadian dollar equivalent of the receivable will increase or decrease with a declining or appreciating exchange rate respectively. If hedged, the Canadian dollar equivalent of the receivable is constant.

Example

September 1:
USD receivable = $1,350,000
@ CAD/USD 0.9000
= C$1,500,000

Bought 15 December Canadian dollar futures contracts at 0.9000

October 1:
USD receivable = $1,350,000
@ CAD/USD 0.9300
= C$1,451,612.90

Sold 15 December Canadian dollar futures contracts at .9300 for a profit of US$45,000, which at CAD/USD 0.9300 equals C$48,347.10

Receivable of C$1,451,612.90 plus futures profit of C$48,347.10 equals C$1,500,000

For more information about currency hedging, or commodity/financial futures, please contact us.