Option number 1 (hedging by using future contracts) case studies example

Parts of the World, European Union

1. What are the advantage and disadvantages of using currency futures and options to hedge?

1. Using Currency futures and options to hedge certainly have their pros and cons. The first and perhaps the greatest advantage is that hedging acts as a tool that can be used to diversify, which in turn leads to higher returns on investments. Secondly, hedging helps cut down the uncertainty levels by curbing down on the risk factor. This can lead to an increased sense of surety for a particular business, thereby ensuring that the business operates in a smooth manner. Lastly, hedging provides the holder with the right to both purchase and sell, puts a limit on the amount of loss for the buyer on the premium amount, and also allows for an unlimited potential for profits. However, while there are advantages, there are some disadvantages associated with hedging as well. The first disadvantage is the opportunity cost that is associated with hedging in the first place. A business can potentially put its resources to better use elsewhere. Secondly, for the seller, hedging limits the amount of profit that can be earned to the premium amount only while creating a virtually unlimited potential for loses. Lastly, understanding hedging is not easy either, and it requires skilled investment managers in order to be performed successfully.

2. As a financial manager of Capital, you have been assigned the task of choosing among three possible strategies: 1. hedge the euro position by purchasing futures2. hedge the euro position by purchasing call options, or3. do not hedge.

Calculations : Cost of the Contract : 500, 000, 000 x 1. 59 : 795, 000, 000. Cost of the Spot Market : 500, 000, 000 x 1. 59 : 800, 000, 000.

Savings Through Hedging : 800, 000, 000 - 795, 000, 000 : 5, 000, 000.

If Option number1 (Future Contract) is chosen, then the business saves 1 cent every Euro. The amount, in US dollars, is 5 million.

Option Number 2 (Hedging by using Call Options)Calculations : Amount of Premium Paid: 500, 000, 000 x 0. 1 : -5, 000, 000Spot Price: 500, 000, 000 x 1. 60 : 800, 000, 000Strike Price: 500, 000, 000 x 1. 60 : 800, 000, 000Loss on Exercising: -5, 000, 000

If the second option (no hedging) is chosen, the spot rate of 1. 62 would most probably go into effect.

A loss of . 02 per Euro on the other hand, would cost to the effect of 10, 000, 000.

Therefore, judging by the calculations, it is safe to say that business should go for Option Number 1 (Future Contract). This option allows for savings of 5 million dollars. On the other hand, if a call option was to be purchased, then a loss of 5 million would have to be incurred. This is due to the premium being one cent per Euro. This particular choice puts the call option at the money, but the premium is not taken into account and therefore not compensated for in the option settlement.

3. Assume the previous information that was provided, except now assume that Capital revised its forecast of the euro to be worth $1. 57 three months from now. Given this revision, recommend whether Capital should: 1. hedge the euro position by purchasing futures2. hedge the euro position by purchasing call options, or3. do not hedge.

Option Number 1 (Hedging by using a Futures Contract)

Cost of the Futures Contract : 500, 000, 000 x 1. 59 : 795, 000, 000Cost of Spot Market : 500, 000, 000 x 1. 57 : 785, 000, 000Savings through Hedging : 785, 000, 000-795, 000, 000 : -10, 000, 000

Using Option Number 1 (Futures Contract) leads to a loss of 10 million in this scenario.

If the business decided against hedging, then it would purchase 5, 000, 000 Euros (5 million) for 1. 57: 785, 000, 000

Option Number 2 (Purchasing the Call):

Amount of Premium Paid: 0. 01 x (500, 000, 000) : -5, 000, 000Spot Rate: 1. 57 x (500, 000, 000) : 785, 000, 000Strike Price: 1. 60 x (500, 000, 000) : 800, 000, 000Savings achieved by using Exercising Option: 800, 000, 000-785, 000, 000 : 15, 000, 000Net Savings: 15, 000, 000-5, 000, 000 : 10, 000, 000

In this particular situation, not hedging helps the business save 15, 000, 000. Therefore, avoiding hedging is recommended.

4. If the euro’s value is just $0. 02 higher than forecasted in three months in #3, how much will Crystal have to pay if it had hedged with a call option? Should Crystal hedge using the call option then or remain unhegded?

Premium: -5 millionSpot: 5m*1. 59795 millionStrike: 5m*1. 60800 millionSavings: 800-795—5 millionNet Savings: 0

Again, in this particular situation, hedging should be avoided as there would be no premium incurred and the business would save 5, 000, 000 (5 million) in all.