Replies 10/21/03

Dear Students,

The answer to my question is (what is the difference between a currency swap and a back-to-back loan) is: the difference is that B-2-B loan appears on the balance sheet as debt while the cross-currency swap does not. On top of it, the cross currency swap would go through a dealer, while the B-2-B loan is directly arranged between the parties.

Here are the replies to your questions.

With regard to Sweden not joining the EMU – I don't see why it's such a big deal for a company like Ericsson. In past years, Ericsson had to hedge against all of the European currencies so it has a hedging strategy in place. This strategy is not simplified because it has not so many currencies to worry about in Europe because of the Euro. Also, with regard to competition, Ericsson has a hands-down advantage over places like Siemens, etc. Ericsson's strategy has allowed them to maintain their worldwide competitive advantage despite all the market and currency fluctuations.

Okey. This is not very critical of Ericsson ☺. But then, why the CEO of Ericsson, in a recent interview, said that the acceptance of the Euro would bring more to Ericsson than less? See, the big advantage of the Euro is that they get to hedge against an exposure that competitors like Siemens and Nokia would not suffer from (why?). Now, you might think that this is not immediately important, but if Ericsson lets its competitors get even a notch ahead, that could have enormous impact in future. Why? Because once you develop customer loyalty, switching to a different brand could be very difficult (especially, if you develop many applications for the particular brand).

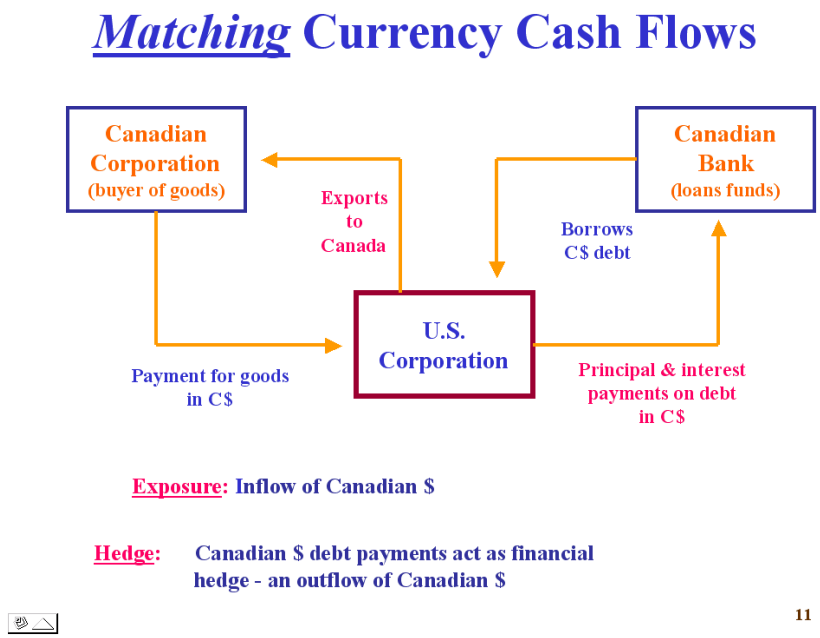
How can you measure a given product's elasticity?

The measure is: Percentage Change in Volume of Sales / Percentage Change in the Price. Known also as price elasticity of demand. Of course this measure will always be negative, because prices and sales usually move in opposite directions (i.e. higher price leads to lower volume of sales – not value of sales, and vice versa). So, you could just take absolute value. Then, if the value is greater than one, you know this is price elastic product. What does this mean and why do me care? First, this means that a, say 10% increase in $ prices (due to say 10% appreciation of the foreign currency that is fully passed through) will lead to more than 10% (say 20%) decrease in sales volume in US. Is that bad or good? It is bad, since the total revenues (or value of sales) fell down by roughly 10%. That's why we care to know the elasticity of the product.

In the balance sheet example in class, case 2 was more suited for a price elastic product, is then case 3 working better with a price inelastic product? Now, the firm knowing that, doesn't it appear bound to only one possibility usually?

Case 2 was where the volume of sales doubles while prices and costs remained the same. Yes, indeed that is a price elastic product. Case 3 is where sales volume did not change, but we raised the price. Yes, that is the case of a price inelastic good. So, indeed knowing the nature of the demand for the product (elastic vs. inelastic) you can say exactly in which case would you go.

Could you please explain slide #11 as matching CFs? What did you mean by lowering currency on the left to increase the right?



Well, I meant that the net exposure is going down, when you take on debt in C$, while you have a continuous inflow of C$ as A/R. So how does it work? Suppose you expect from a Canadian customer, Alcan Inc (Canada's biggest aluminum producer), an account receivable of C$1,000,000. Since payment is C$, you are exposed to forex risk. So, if you take debt of C$1,000,000 accordingly discounted in terms of present value, then you can end up using your C$ receipts to pay for the debt service on the C$ debt.

Is there any way that a pure play domestic firm could hedge itself against exchange rate fluctuations that would make its foreign competitors more competitive?

Operation-wise, yes – become multinational (diversify geographically) or find out a niche that is difficult to get hold of by an international competitor (usually fields that require a lot of expertise in local markets, like distribution).

How do parties for parallel loans find one another?

Usually it is the CFO of one of the companies working w/ the CFO of the other company. That happens if they are related due to the nature of their business (e.g. customer/

supplier). Of course, it could be that they both arrange the loan through a middle agent (like an investment bank).

How can a firm match cash flows if it does not occur naturally? Also have you ever been to Bretton Woods? Nice place.

The firm can take debt.

Why would we use WACC as the discount rate?

Great question. We would use the WACC to compound because this is usually the highest rate at which you can use the capital (however, sometimes companies might have very low WACC).

Can you please post the Lucent's spreadsheet on Blackboard?

Sure, done!

Where would swaps be recorded? Are they tax-free?

Currency swaps are treated as forex transactions, and as such the reversal of the swap is considered to be a forward contract. Note, a forward contract is not entered into the balance sheet! I don't know are swaps tax free, this is a great question, that we can ask everyone in class ☺.

If the EUR depreciates why would sales in Europe increase? Doesn't the sale price in EUR remain unchanged?

Depreciation of the EUR could cause an increase in the sales in Europe, because major competitors from abroad, whose functional currency is US$, now would be less competitive in terms of EUR (why? Say if Motorola was charging $15 a telephone set, now the price will go up in terms of EUR so Lucent Europe has less competition, if they keep its price same, as in the example).

On slide 12 in Transaction exposure, can you explain again the upper and lower bounds on the option market hedge?

Option Market Hedge

- Purchase put option.
  - 3 month put option @ ATM strike $1.75/£, premium 1.5%:

    Cost = (Size of option) x (premium) x (spot rate)
    £1,000,000 x 0.015 x $1.7640 = $26,460.
  - Premium as of Jan $26,460 × 1.03 = $27,254.
  - Unlimited upside, limited downside.
- Breakeven price, option hedge
  - **Upper bound:**
    - If pound appreciate above $1.754/£ + $0.0273/£ = $1.7813/£.
  - **Lower bound**
    - If pound depreciates below $1.75/£ - $0.0273/£ = $1.722/£.

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So here is slide 12. So, the upper & the lower bounds (breakeven prices) are basically guideline points at which to look, so that you can figure out which strategy to choose (e.g. forward market hedge vs. option market hedge, or simply stay unhedged). How?

Start w/ the upper bound (breakeven) price. This is the exchange rate @ which or above which you would be better off w/ an option market hedge as compared to the forward market hedge. Why? Because if you can get $1.7813/ Pound, this is more than enough to compensate you for the premium you paid on the option (notice the premium in future value terms is $27,254/ 1,000,000 Pounds = $0.0273/Pound) and still get you the forward rate of $1.754/Pound or more.

Now, the lower bound. This is basically telling you how much you will get (bottom rock!) if you had an option market hedge. So, again, you locked in the $1.75/Pound strike price net of the per-pound cost of option. That's it!

So, why are we doing these bounds (breakeven prices)? Because, now you can take a look at them and, based on your expectation, figure out which is the best choice for you. So, if you expect a high appreciation of the pound (above $1.7813/Pound) then you are fine going w/ the put option hedge, rather than w/ the forward market hedge. If you expect a rate below $1.7813/Pound, but above forward rate $1.754/Pound, you will be better off w/ a forward market hedge. Finally, if you are below the strike price $1.75/Pound, you would always exercise the option, so you better have it (i.e. you go for option market hedge).