

## B8101 Corporate Financial Reporting II Lecture 6

Agenda:

- (1) Accounting for foreign currency transactions.
- (2) Use of forward contracts to hedge exposed assets and liabilities.
- (3) Accounting for hedging transactions.

### (1) Accounting for foreign currency transactions.

#### Definitions and applicability.

- Transactions – Exporting (sales), importing (purchases), loans, borrowings.
- Applies to transactions which are **denominated** in a foreign currency (other than the company's functional currency).
- When company enters into foreign currency transaction, it assumes risk from exchanges in exchange rates, which may give rise to exchange transaction gains or losses.
- Resulting payables or receivables from such transactions are **exposed** until settled.

#### Key Dates for valuing transactions

- Transaction date
- Balance sheet (financial statement) date
- Settlement date

#### Accounting at key dates

- Transaction date: Transaction is recorded (**measured**) at spot rate.
- Balance sheet date:
  - Exposed asset/liability is marked-to-market (re-measured) based on spot rate in effect at balance sheet date.
  - Exchange transaction gain or loss is recorded and included in the determination of net income.
  - Recorded sale or purchase (asset acquired) not re-measured. Operating decision to buy or sell made based on information/rates in effect at that time. Financing is a separate decision, and bears a risk due to changes in exchange rates.
- Settlement date:
  - Exposed amounts again marked-to-market.
  - Receivable or payable is removed by receipt/payment of foreign currency.

## (2) Use of forward contracts to hedge exposed assets and liabilities

What and how:

- Contract to **buy** or **sell** a foreign currency at a **fixed price (forward rate)**, at a **specified date** in the future.
- If exposed receivable, contract to sell foreign currency at fixed price will counterbalance.
- If exposed payable, contract to buy foreign currency at fixed price will counterbalance.
- Counterbalance risk goes both ways. Hedges loss but also hedges gains as well.
- Forward rate usually not equal to spot rate. Difference due to currency dealer's commission (sold with a spread), interest rates and market conditions.

## 3. Accounting for Forward Exchange Contracts (Using Net Position Accounting)

Underlying concepts:

- The forward contract is either an asset or liability, to be shown on the balance sheet. Changes in carrying value are reflected in the income statement as foreign exchange gains or losses.
- The forward contract's book value is based on its intrinsic value and the time value of the contract.
- Intrinsic value is measured by the difference between the contract (forward) rate and the spot rate on the day measured. It represents the amount that the Company would receive from or pay out to the currency dealer.
- Time value of the contract is measured at the date the contract is entered into (transaction date). It arises as a result of a difference between the spot and forward contract rates. It is the difference between the payable and the receivable, as shown under the Broad Accounting approach. It is equal to the reciprocal of the intrinsic value at the transaction date. Accounting presumes that if a Company enters into a forward which has a greater payable than receivable, the difference represents the value placed on the contract by the Company. It's value declines with the passage of time.

Accounting for Forward Exchange Contracts

- Transaction Date:
  - No entry is recorded. The memo entry (See broad accounting) should be noted to calculate the initial intrinsic value and time value of the contract.
- Balance Sheet Date:
  - Intrinsic value is recalculated, and the gain or loss is recognized in income. In a perfect hedge, this gain or loss will completely

counterbalance the FX gain or loss recognized on the hedged transaction.

- The change in intrinsic value is recorded as an asset or liability.
- The time value is re-calculated based on amortizing the original time value using the straight-line method over the term of the contract.
- The decline in time value reduces the total value of the Contract (decreases an asset or increases a liability).
- The decline in time value is recorded as Hedge Expense in net income, usually combined with foreign exchange gains and losses in the income statement.
- Settlement Date:
  - Intrinsic value recalculated, resulting in FX gain or loss and change in carrying value of the contract.
  - Time value reduced to –0– and the change reflected as hedge expense and a reduction in the carrying value of the contract.
  - The contract is settled out net, with monies changing hands based on the difference between the contract rate and the spot rate on settlement (delivery) date. The contract value is removed from the balance sheet and the cash inflow or outflow is recorded.

Other matters regarding forward contracts and hedging.
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- When the forward contract rate is less than the spot rate at the date of the transaction, we say that the Company bought or sold currency using a forward contract at a discount. When the contract rate is greater than the spot rate, the Company has bought or sold currency at a premium. This is terminology.
- A discount can be a debit or a credit, depending upon whether the company is buying or selling; a premium can also be a debit or credit. (Test it by recording the Memo entry under different scenarios.)
- Debits (the more common situation) represent the cost of the contract (time value), and are charged to income over the life of the contract. They are considered an asset (deferred cost). Credits represent deferred income, and are credited to income over the life of the contract. They are shown as liabilities. Mechanically, credits work exactly like debits, except in reverse.
- Under current accounting, the new forward rate is ignored at the balance sheet and settlement date. The intrinsic value is measured by the difference in the contract rate and the spot rate.

**Hedging an Exposed Receivable with Forward Exchange Contract  
Problem 17-6**

<b>Hedged Transaction</b>	<b>Hedging Transaction</b>	
	<b>Gross (Broad) Accounting</b>	<b>Net Position Accounting</b>
<b>Transaction Date – 4/1/91</b>		
Recording sale; spot rate .81	Entry to record FX Forward to sell C\$100,000; forward rate .80	
(C\$) A/R 81,000	(\$) A/R 80,000	Memo entry
Sales 81,000	(A)Discount 1,000	Intrinsic value (1,000)L
	(C\$) A/P 81,000	Time value <u>1,000</u> A
		Contract value <u>-0-</u>

<b>Balance Sheet Date – 6/30/91</b>		
Hedged Transaction: Mark-to-market @ 6/30/91; spot rate .825. Hedging transaction: Change in forward rate irrelevant; discount (time value of forward) amortized into hedge expense (3/4); mark-to-market exposed portion of hedging transaction; change in intrinsic value results in FX gain or loss which counterbalances FX gain or loss on hedged transaction.		
(C\$) A/R 1,500	FX Loss 1,500	FX Loss 1,500
FX Gain 1,500	(C\$) A/P 1,500	(L) Fwd Contract 1,500
	Hedge Exp 750	Hedge Exp 750
	(A)Discount 750	(L) Fwd Contract 750
		Intrinsic value (2,500)L
		Time value <u>250</u> A
		Contract value <u>(2,250)L</u>

**June 30, 1991 Financial Statements**

June 30 B/S: A/R 82,500		June 30 I/S: Hedge expense 750
Fwd Contract (L) 2,250(L)		Sales revenue 81,000

**Settlement Date – 7/31/91**

Hedged transaction: Mark-to-market at @7/31; spot rate .82; record receipt of (C\$) 100,000 from customer. Hedging transaction: Amortize discount (time value); mark-to-market exposed portion (resulting in change in intrinsic value); settle out forward contract net.

FX Loss 500	(C\$) A/P 500	(L) Fwd Contract 500
(C\$) A/R 500	FX Gain 500	FX Gain 500
	Hedge Exp 250	Hedge Exp 250
	(A)Discount 250	(L) Fwd Contract 250
		Intrinsic value (2,000)L
		Time value <u>-0-</u>
		Contract value <u>(2,000)L</u>
Cash 8,200	(C\$) A/P 82,000	(L) Fwd Contract 2,000
(C\$) A/R 8,200	(\$) A/R 80,000	Cash 2,000
	Cash 2,000	