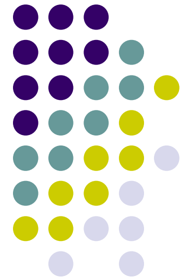
MEASURING
ACCOUNTING
EXPOSURE

PART I. ALTERNATIVE MEASURES OF FOREIGN EXCHANGE EXPOSURE



I. ALTERNATIVE MEASURES

A. THREE TYPES

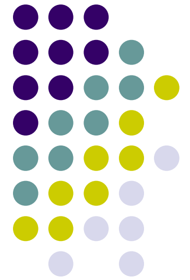
1. <u>Accounting Exposure:</u>

   when reporting and consolidating financial statements requires conversion from foreign to local currency.

2. <u>Transaction Exposure:</u>

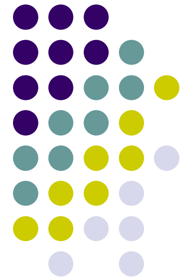
   __________occurs from changes in value of of foreign currency contracts from exchange rate changes.

ALTERNATIVE MEASURES OF FOREIGN EXCHANGE EXPOSURE



3. Operating Exposure
   arises because exchange rate changes alter the value of future revenues and costs.
4. Economic Exposure
   = Accounting + Operating Exposures

PART II.
ALTERNATIVE CURRENCY TRANSLATION METHODS

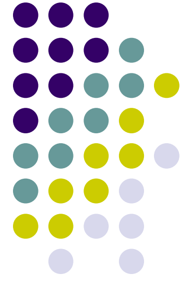


I. FOUR METHODS OF TRANSLATION

A. Current/Noncurrent Method

1. Current accounts use current exchange rate for conversion.
2. Income statement accounts use average exchange rate for the period.

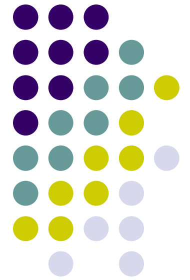
ALTERNATIVE CURRENCY TRANSLATION METHODS



B. Monetary/Nonmonetary Method

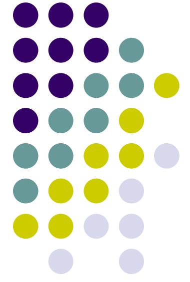
1. Monetary accounts use current rate
2. Pertains to
   - cash
   - accounts receivable
   - accounts payable
   - long term debt

ALTERNATIVE CURRENCY TRANSLATION METHODS



3. Nonmonetary accounts
   - use historical rates
   - Pertains to
     inventory
     fixed assets
     long term investments
4. Income statement accounts
   - use average exchange rate for the period.

ALTERNATIVE CURRENCY TRANSLATION METHODS



C. Temporal Method

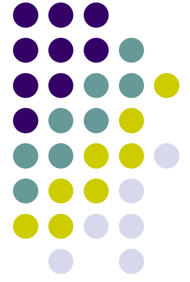
_____1. Similar to monetary/nonmonetary method.

2. Use current method for inventory.

D. Current Rate Method

_____all statements use current exchange rate for conversions.

PART V.
TRANSACTION EXPOSURE

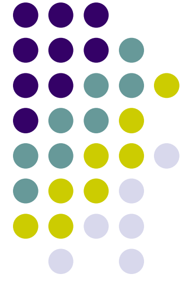


I. WHEN DOES IT OCCUR?

A. From the time of agreement to time of payment.

B. Arises from possibility of exchange rate gains and losses from the transaction.

TRANSACTION EXPOSURE



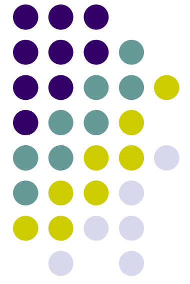
II. MEASUREMENT

A. Currency by currency

b. Equals the difference between

1. The contractually-fixed invoice amount in a specific currency
2. The final payment amount denominated in current exchange rate for the specific currency.

PART VI.
ACCOUNTING PRACTICE AND ECONOMIC REALITY



I. Accounting v. Economic Exposure

measurement of exchange rate risk indicates

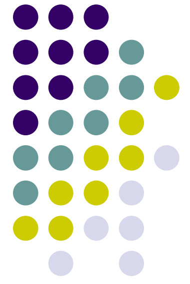
major difference exists.

A. Accounting exposure
   reflects past decisions of the firm.

B. Economic exposure
   1. Focuses on future impact of exchange rate changes.
   2. Not all future cash flows appear on

      the firm's balance sheet.

ACCOUNTING PRACTICE AND ECONOMIC REALITY



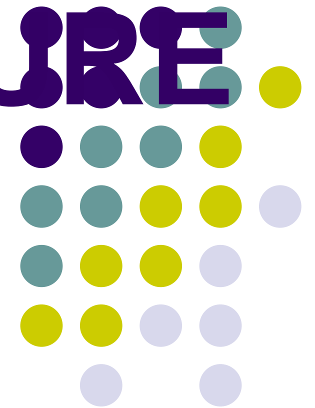
II. Recommendations for International Business Executives

A. There is no relationship between

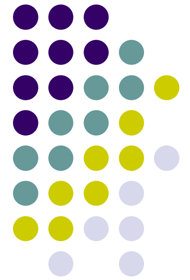
1. Information from historical accounting techniques, and
2. The firm’s actual operating results.

B. Chief executives should base management decisions on the economic effects of exchange rate change.

MANAGING ACCOUNTING EXPOSURE



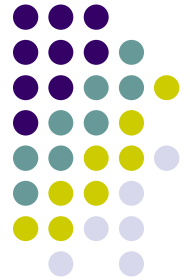
MANAGING TRANSLATION EXPOSURE



Central idea: Hedging

- Hedging a particular currency exposure means establishing an offsetting currency position
- whatever is lost or gained on the original currency exposure is exactly offset by a corresponding foreign exchange gain or loss on the currency hedge

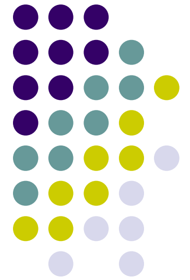
MANAGING TRANSACTION EXPOSURE



Managing transaction exposure:

- A transaction exposure arises whenever a company is committed to a foreign currency-denominated transaction.
- Protective measures include using: forward contracts, price adjustment clauses, currency options, and HC invoicing.

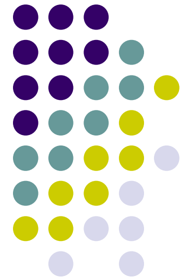
MANAGING TRANSACTION EXPOSURE



A. FORWARD MARKET HEDGE

1. consists of offsetting
    a. a receivable or payable in a foreign currency
    b. using a forward contract:
        - to sell or buy that currency
        - at a set delivery date
        - which coincides with receipt of the foreign currency.

MANAGING TRANSACTION EXPOSURE

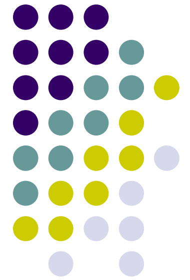


2. True Cost of Hedging:
   a. The opportunity cost depends upon future spot rate at settlement
   b. Shown as

$$\frac{f_1 - e_1}{e_0}$$

where
f_1 = forward rate
e_0 = spot rate
e_1 = future spot rate

MANAGING TRANSACTION EXPOSURE

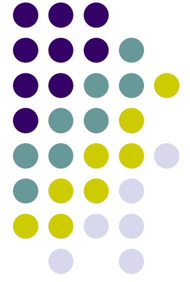


B. MONEY MARKET HEDGE

1. Definition:

simultaneous borrowing and lending activities in two different currencies to lock in the dollar value of a future foreign currency cash flow

MANAGING TRANSACTION EXPOSURE

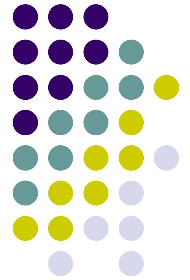


C. RISK SHIFTING

1. home currency invoicing
2. zero sum game
3. common in global business
4. firm will invoice exports in strong currency, import in weak currency
5. Drawback:

   it is not possible with informed customers or suppliers.

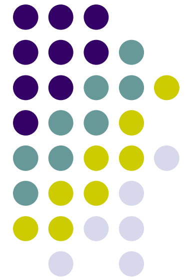
MANAGING TRANSACTION EXPOSURE



D. PRICING DECISIONS

1. general roles: on credit sales connect foreign price to home price using forward rate, but not spot rate.
2. if the dollar price is high/low enough the exporter/importer should follow through with the sale.

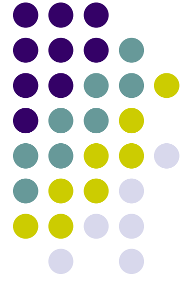
MANAGING TRANSACTION EXPOSURE



E. EXPOSURE NETTING

1. Protection can be gained by selecting currencies that minimize exposure
2. Netting:
   MNC chooses currencies that are not perfectly positively correlated.
3. Exposure in one currency can be offset by the exposure in another.

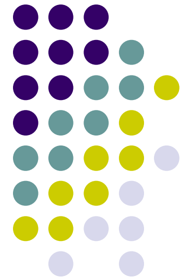
MANAGING TRANSACTION EXPOSURE



F. CURRENCY RISK SHARING

1. Developing a customized hedge contract
2. The contract typically takes the form of a Price Adjustment Clause, whereby a base price is adjusted to reflect certain exchange rate changes.

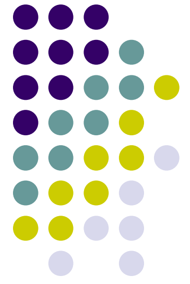
MANAGING TRANSACTION EXPOSURE



F. CURRENCY RISK SHARING (con't)

3. Parties would share the currency risk beyond a neutral zone of exchange rate changes.
4. The neutral zone represents the currency range in which risk is not shared.

MANAGING TRANSACTION EXPOSURE



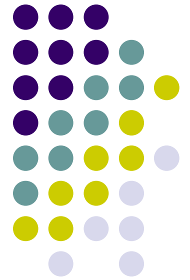
G. CURRENCY COLLARS

1. Contract

   bought to protect against currency moves outside the neutral zone.

2. Firm would convert its foreign currency denominated receivable at the zone forward rate.

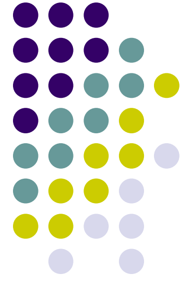
MANAGING TRANSACTION EXPOSURE



H. CROSS-HEDGING

1. Often forward contracts not available in a certain currency.
2. Solution: a cross-hedge
   - a forward contract in a related currency.
3. Correlation between 2 currencies is critical to success of this hedge.

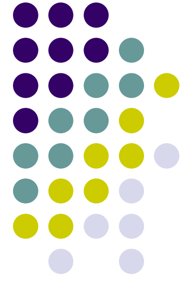
MANAGING TRANSACTION EXPOSURE



I. Foreign Currency Options

- When transaction is uncertain, currency options are a good hedging tool in situations in which the quantity of foreign exchange to be received or paid out is uncertain.

MANAGING TRANSACTION EXPOSURE

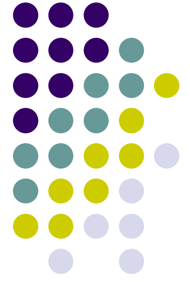


I. Foreign currency options

1. A call option

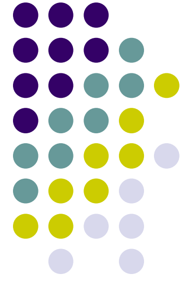
is valuable when a firm has offered to buy a foreign asset at a fixed foreign currency price but is uncertain whether its bid will be accepted.

MANAGING TRANSACTION EXPOSURE



2. The firm can lock in a maximum dollar price for its tender offer, while limiting its downside risk to the call premium in the event its bid is rejected.

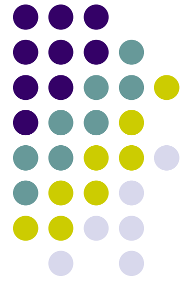
MANAGING TRANSACTION EXPOSURE



3. A <u>put option</u>

_____allows the company to insure its profit margin against adverse movements in the foreign currency while guaranteeing fixed prices to foreign customer.

PART II. MANAGING TRANSLATION EXPOSURE



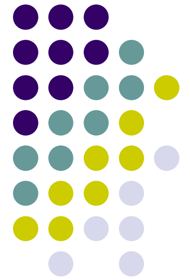
I. MANAGING TRANSLATION EXPOSURE

A. 3 options

1. Adjusting fund flows

altering either the amounts or the currencies of the planned cash flows of the parent or its its subsidiaries to reduce the firm's local currency accounting exposure.

MANAGING TRANSLATION EXPOSURE



2. Forward contracts

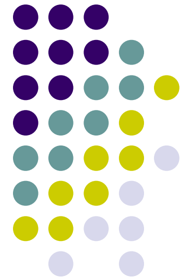
   reducing a firm's translation exposure by creating an offsetting asset or liability in the foreign currency.

3. Exposure netting

   a. offsetting exposures in one currency with exposures in the same or another currency

   b. gains and losses on the two currency positions will offset each other.

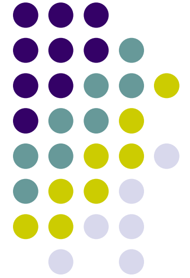
Managing Translation Exposure



B. Basic hedging strategy for reducing translation exposure:

1. increasing hard-currency(likely to appreciate) assets
2. decreasing soft-currency(likely to depreciate) assets
3. decreasing hard-currency liabilities

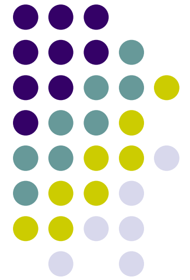
MANAGING TRANSLATION EXPOSURE



4. increasing soft-currency liabilities

i.e. reduce the level of cash, tighten credit terms to decrease accounts receivable, increase LC borrowing, delay accounts payable, and sell the weak currency forward.

PART III. DESIGNING A HEDGING STRATEGY



III. DESIGNING A HEDGING STRATEGY

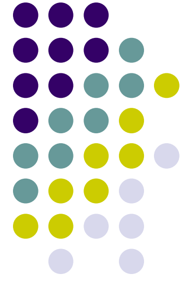
A. Strategies

a function of management's objective

B. Hedging's basic objective

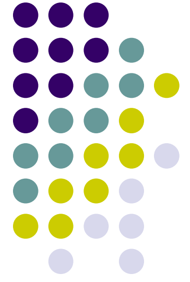
reduce/eliminate volatility of earnings as a result of exchange rate changes.

DESIGNING A HEDGING STRATEGY



C. Hedging exchange rate risk
   1. Costs money
   2. Should be evaluated as any other purchase of insurance.
   3. Taking advantage of tax asymmetries lowers hedging costs.

DESIGNING A HEDGING STRATEGY



D. Centralization v. Decentralization

1. Important aspects:
   a. Degree of centralization
   b. Responsibility for developing
   c. Implementing the hedging strategy.
2. Maximum benefits accrue from centralizing policy-making, formulation, and implementation.