CHAPTER 4

4. Alternatives Financial Strategies in Managing Exchange Risk

Many literature that writes about financial strategies for managing exchange risk refers to strategy towards managing exchange net exposure due to balance sheet risk rather than trading risk and economic currency risk. The net exposure in this context refers to the difference between exposed assets and exposed liabilities in the balance sheet. Obviously, the subject of exchange risk discussed in this literature focuses on multinational companies (MNC) that are doing business in the foreign countries. These MNCs are exposed to multiple currency dealing due to their offshore operation. Lack of attention is given to the trading currency risk that arises from selling in currencies other than those of cost.

Nevertheless, it is important to explore various strategies written in this literature on managing the financial risk arising from the exchange net exposure of the companies, before an attempt can be made to provide and to apply these alternatives strategies for the power companies concerned with different operating environments from the MNCs. A strategy towards exchange risk involves a programmed approach towards deciding on the currency mix of assets and liability. Each strategy has its own rationale, sometimes implicit, sometimes explicit, about the returns and the risk associated with foreign currency exposure

4.1 Managing the Trading Risk

Not many literatures discuss on the trading risk because this risk is concerned only during the pricing decision of the product. Since the process of pricing

product does not necessarily translated into the order book and goes to the financial statement of the company, the study into this risk is very limited.

Alfred Kenyon suggested four methods in managing the trading risk.

1. Avoidance by matching. This method is the simplest and the cheapest as the method avoid the currency risk altogether by pricing the product in the currency cost. However, when the cost involved multiple currency, the currency with the largest cost should be used as the selling currency, while hedge the purchase cost for other currency. The problem arise with this method is the exposure of the profit of the company during financial reporting which is then dealt as balance sheet risk.
2. Accepted selected risks and covering forward at sale period. This approach apply when the company can obtain better fixed price in customer's currency, but the company has to sell forward of this currency into cost currency at the time of contract. In this case the company has to incur transaction cost but the return is higher. However, when the pricing and the sale period is substantially far apart, the company cannot safely cover the risk forward when the currency can move during this interval.
3. Accepting selected unhedged risks in selected strong currency. In this method, the company decides to sell in unmatched currencies without hedging, as a matter of calculated risk. The case normally applies when the company has a strong believe that the selling currency is stronger than the cost currencies.
4. Net exposure matrix method. This method periodically reviews all exposure, especially those that arise from buying and selling. Each periodical review assesses whether they should be covered forward or not based on whether the forward rate looks more favourable than the spot expected rate on maturity or future forward rate for the same maturity. All the trading risks are collectively reviewed for each maturity and for each currency, and it does not consider individual risk. This method takes many forms depending on the trading and organisational characteristic of the company or group. It may in the form of different period of credit, sell in

different number of currencies, have different typical sizes of transaction, difference numbers and frequencies of sale.

The first three policies are cheap to implement because none of them require an exposure management overhead with staff and information resources needed as outlined by the fourth method.

4.2 Managing Balance Sheet Risk

The balance sheet risk begins when the firm has identified what is the net exposure of its asset and liabilities against the currency other than the reporting currency. There are three approaches in measuring net exposure depending on what the managers of the firm wished to include or to exclude in the definition of exposure: -

1. Current/Non-current method (also referred to as Net Current Asset or Net Working Capital)
2. The Monetary/Non-Monetary method excludes inventory but includes long-term debt
3. Net Financial Asset method includes all current accounts as well as the long-term debt.

Table 5 : Net Exposure Measurement Methods

		METHOD		
		Current/Non-current	Monetary/Non-monetary	Net Financial Asset
Current Assets, except inventory	$120	120	120	120
Inventory	80	80		80
Current Liabilities	80	(80)	(80)	(80)
Long-term Liabilities	120		(120)	(120)
Exposure		$120	(80)	0

Notes: -
Where there is a blank, the account is not included when the determination of exposure is made. The final exposure is the sum of the positive and negative figures.

There are two broad category tools used in the management of the balance sheet risk. These are as follows: -

General Protection Measures - Asset-liability Transactions	Specific Protection Measures - Forward Exchange Contract
• Long-term Borrowings and investment • Income Remittance • Working-capital Policy • Invoicing Policies • Transfer Pricing • Local and Export Price Adjustment • Leading and lagging, and Extension of Trade Credit	• Forward Exchange Contract • Borrowings and Investing/Lending • Prepayment • Swaps • Other Credit Measures and Payment Mechanism

The above strategies and illustration are described briefly in the following section.

4.2.1 General Protection Measures

The general protective measures are those implemented on an ongoing basis, as part of the multinational's normal operations, in order to place the company in long-term defensive position. These measures relate to decisions involving long-term borrowings abroad, capital investments in the foreign countries, pricing and invoicing intracompany shipments, lagging of payments and working capital policies.

4.2.1.1 Long-Term Borrowings and Investments

- long-term borrowings of weak currencies to finance capital investments in strong-currency countries.

- repayment of principal and interest must be assured whenever loan is advanced to the subsidiaries company. One of the ways is to have the parent company's bank lend to the required investment to the foreign subsidiary

4.2.1.2 Income Remittance

- funds should be transferred out of weak-currency countries at an accelerated pace,
- local borrowings for the purpose of income remittance are desirable in weak-currency countries to create additional liabilities in the depreciable currency while channelling asset to parent company

4.2.1.3 Working-Capital Policies

- to maintain in a net asset position in strong-currency countries and a net liability position in a weak-currency countries. It implies maintaining monetary asset in hard currencies and monetary liabilities in soft currencies.
- this can be done by holding minimum current asset in the weak currency countries by ensuring that all excess funds are transferred to the parent company, or by holding excess cash in strong currency.
- cash-management policy in a weak-currency countries require maintaining minimum local cash balance at all times through sound forecasting and synchronisation of cash receipts and disbursements. Cash movements can be accelerated through such techniques as central deposit accounts and wire transfer.
- reduce the amount of local receivable in weak currency to reduce exposure to currency depreciation by reducing the length of credit terms, special discount to speed up collection and factoring.
- where intracompany accounts are involved, centralised netting procedures provide an effective means of speedily settling accounts with the objectives of transferring payments for goods and services out of weak currency

countries and too reduce transfer costs. A centralised fund-clearing system permits multi-lateral offsetting of intracompany receivable and payable, thereby minimising exchange conversions and speeding up transfers. The basic principle in this system is to transfer only 'net amounts' between units according to specified time schedules, each unit purchasing or selling the requisite amounts in advance to hedge the transferable net amounts.

- with regard to inventory management, to reduce currency risk is to create additional monetary liabilities to neutralise the 'potentially exposed' non-monetary inventory item, simultaneously reducing other monetary assets through remittances or conversions into hard currencies. This policy combined with periodic price adjustments on finished goods can effectively take care of exchange-risk problems arising from inventory.
- In general the working policy towards liability management is incurring liabilities in weak currencies and prepaying in strong currencies. However, long-term currency and interest rate must be analysed in-depth before any decision can be made.

4.2.1.4 Invoicing Policies

- The intracompany payment on the consolidated basis does not depend upon the currency denomination of the invoice because the liability in the books of the importing subsidiary is offset by an exactly equal amount of receivable in the same currency in the books of the exporting subsidiary.
- the objective of properly selecting the currency denomination of invoicing on intracompany payment is purely on tax consideration, i.e. to obtain maximum credits upon exchange losses or to minimise tax liabilities upon exchange gains. As a general rule, all shipments from a strong-currency country to weak-currency country should be invoiced in the currency of the country that has the higher tax rate of the two.
- invoices to third party abroad generally follow the conventional rule that they should be denominated in the relatively stronger currency. The rule is reverse for payment policy.

4.2.1.5 Transfer Pricing

- in using transfer pricing as tools for exposure management, is to apply high prices on its intracompany shipments to one of its weak-currency subsidiaries.
- this method is less preferable as it has other implication such as tax shield tactics which is not preferable by host country.

4.2.1.6 Local and Export Price Adjustment

- exchange losses arising from depreciation of the local currency can be offset partly or fully by raising local prices on finished good which uses imported materials.
- exposure-management policies from cash flow viewpoint should institute price adjustments where desirable to offset cash losses due to exchanges losses.

4.2.1.7 Leading and Lagging, and Extension of Trade Credit

- Leading and lagging implies speeding up collections on receivable and lagging payments on payable denominated in weak foreign currencies
- The basic principle of leads and lags is to build up debit balances in the weak currency through delayed collections on export receipts and accelerated payments on imports by the weak currency subsidiary. Simultaneously the strong-currency subsidiary minimises exchange losses by speeding up its sales receipts denominated in weak currency.
- Subsidiaries and the parent company could achieve the objective of lead-lag policies by suitably balancing trade credit terms for intracompnay accounts. Shipments to subsidiaries with weak currencies should be made under short payment periods, while longer time is allowed for payments by strong-currency subsidiaries.

4.2.2 Specific Protection Measures

In addition to a program of ongoing general protection measures, a company will from time to time be required to implement specific protection measures in anticipation of immediate or short-term adverse currency movements.

4.2.2.1 Hedging In Forward Market and Money Market

- The need to hedge against the company's transaction and net exposure of balance sheet arise when:
    - * a devaluation of currency is feared, the excess exposed asset over exposed liabilities in the currency (a net asset position) implies a potential loss.
    - * an upvaluation of currency is feared, the excess exposed liabilities over exposed asset in the currency (a net liability position) implies a potential loss.
- The objective of hedging an unwanted foreign exchange exposure is to generate exchange gains in the forward or money market that will compensate for the losses produced by the translation of the accounts from foreign currency to local currency. The cash flows of the hedging measures have very specific dates attached to them in the financial markets.
- The decision on whether or not to hedge should be taken to protect a given currency position depends upon two factors: the potential exchange loss that is likely to occur, and the cost that will have to be incurred on the hedge.

Forward Exchange Contracts

- Forward Exchange Contract - a forward exchange contract is defined as "an operation in exchange whereby a rate is fixed at once for a purchase or sale of one currency for another which is to be completed at some future date."[1]

Borrowing and Investing/Lending in the Money Market

- The corporate exposure to currency risk is affected by the nature of the underlying transactions in the money market, which may take any of the following forms:
    1. Borrow locally to pay off a dollar debt to the parent
    2. Borrow locally to make loan to the parent
    3. Borrow locally, convert loan proceeds into dollars or into a strong currency, and invest
    4. Borrow locally and declare dividend to the parent
- The after-tax impacts of the above transaction on the net exposure with respect to accounting and cash-flow for one US parent company and one subsidiary involving two currencies is given in Table 6.

Table 7 summarise the possibility of gains or loss obtained by a company after hedging exposure of £500,000 in April in financial market and money market under three possible outcome of the currency movement against the US dollar. The calculations are shown in the Appendix

4.2.2.2 Prepayments

- it is basically a leading transaction intended to reduce assets or liabilities in weak currencies. This transaction normally takes the form of early declaration of dividends, prepayment of debt in foreign currencies and settlement of other liabilities that are denominated in strong currencies.

Table 6: After-tax Impacts of Borrowing and Investment/Lending (Two subsidiaries and two currency case)

Action by Foreign Subsidiary	After-tax Impact on Consolidated Company	
	Accounting Exposure	Cash-Flow Exposure
1. Borrow locally and pay off dollar debt to parent	Increase in the local-currency liability exposure of the subsidiary = local-currency borrowing X (1 - tax rate of subsidiary)	Increase in the local-currency liability exposure of the subsidiary = local-currency borrowing X (1 - tax rate of subsidiary)
2. Borrow locally and advance loan to U.S. parent	Increase in the foreign-currency liability exposure of the U.S. parent = foreign-currency debt of parent X (1 - U.S. tax rate)	Increase in the foreign-currency liability exposure of the U.S. parent = foreign-currency debt of parent X (1 - U.S. tax rate)
3. Borrow locally and deposit in Eurodollar	Increase in the local-currency liability exposure of the subsidiary = local-currency borrowing X (1 - tax rate of subsidiary)	Increase in the local-currency liability exposure of the subsidiary = local-currency borrowing X (1 - tax rate of subsidiary)
4. Borrow locally and make dividend payment to U.S. parent	Increase in the local-currency liability exposure of the subsidiary = local-currency borrowing	No cash-flow impact. Change in the economic exposure is a decrease in the asset exposure of the parent by the full amount of local-currency borrowing by the subsidiary

Source: Abraham M.George (1978), "Foreign Exchange Management and The Multinational Corporation - A Manager's Guide", Praeger Publishers

Table 7 : Gains or Losses After Hedging Transaction and Translation of Gains or Losses on Exposed Assets

	Interest Differential = 0 Discount on Pound = 0				Interest Differential = 2% in favour of UK 2% Discount on Pound against US dollar				
Case	1	1A	1B	2	2A	2B	2	2A	2B
Year 1 Forward Rate for Year 2 Delivery ($/£)	2.50	2.50	2.50	2.45	2.45	2.45	2.45	2.45	2.45
Spot Rate Anticipated for April, year 2 ($/£)	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Actual Spot Rate in April, Year 2 ($/£)	2.40	2.35	2.60	2.40	2.35	2.60	2.40	2.45	2.60
Net Exposure	Hedge £500,000	Hedge £500,000	Hedge £500,000	Over-hedge	Over-hedge	Over-hedge	Hedge £500,000	Hedge £500,000	Hedge £500,000
Forward Market Gain (Loss)	0	0	0	0	$25,000	($100,000)	($25,000)	($25,000)	($25,000)
Money Market Gain (Loss)	$3,500[a]	$5,250[a]	($3,500)[a]	0	$21,190	($84,7420)	($20,500)[a]	($19,425)[a]	($30,800)[a]

[a]Because of an approximation to the amount to be hedged in the money market rather than the use of the exact amount computed by formula and the conversion of interest payments at the end of the period, these results are not consistent with forward market result.

Please refer to Appendix for detail calculations of the cases.

4.2.2.3 Swaps

- Forward foreign-exchange swap refers to a transaction in which equivalent amount of 2 different currencies are swapped for a certain of period. At the end of the period, both parties return the original amount in each currency
- The purpose of such a transaction is to provide protection for a potential future exposure from one future date to another.

4.2.2.4 Other Credit Measures and Payment Mechanisms

- Intercompany future transaction arranged by banks if available in the private market.
- discounting of export bills in local markets when exchange restrictions do not prevent spot purchases of foreign currencies.
- establish foreign-currency accounts with the permission of central banks when a company having more or less matching inflow and outflow of foreign currency over the period of time. This technique help in reducing transaction costs and works as an effective exposure-management tool where the local currency is relatively weak.