



An Overview Of Foreign Exchange Transaction Risks And Strategies To Manage Them

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1.0 INTRODUCTION

1.1 Background

Every company that has exposure to foreign exchange risk must prudently manage and control its exposure together with management of other risks. Foreign exchange risk implies the exposure of a company to the potential impact of movements in foreign exchange rates. The risk that is caused by adverse fluctuations in exchange rates may result in a loss to the company. Foreign exchange risk arises mainly due to currency differences in a company's assets and liabilities and cash flow differences. Such risk continues till the foreign exchange position is settled. This risk arises because of foreign currency cash transactions, foreign exchange trading, investments denominated in foreign currencies and investments in foreign companies. The quantum of risk is derived out by multiplying the magnitude of exchange rate changes with the size and duration of the foreign currency exposure. Globalisation of financial markets and developments in exchange markets have resulted into complicated transnational exposure management. It is complex mainly because of (a) the increasing size and variety of exposures which companies incur as they grow globally and (b) the increasing volatility and fluctuations in exchange rates of the foreign exchange markets. Due to this complexity, a logical balanced approach is required in view of formulating company's foreign exchange risk management programme. The starting point in such a programme relates to deciding the exact amount of the assets which are under risk. At micro economic level, transnational companies face varying degrees of business structural risks. Their need for information relevant to exposure identification differs. Therefore, no single exposure system may be appropriate for all companies. The appropriate system must be firm-specific. It must take into account the size of the company and its constituent units, the exposure objectives and strategy of the company, its operating and organizational characteristics and personnel strength.

1.2 TYPES OF CURRENCY RISKS

A typical example of currency risk is when companies generate capital by borrowing debt or issuing equity and then use this to invest in assets and try to generate a return on the investment. The investment might be in assets overseas or financed in a foreign currency. Or another example of currency risk is when the company's product is sold to customers overseas who pay in their local currencies. But it is not only companies that trade internationally that face the currency risks, also domestic firms do. It could be that the firm buys raw material that are priced in a foreign currency, or it could be companies that only trades in domestic could come to deal with currency risk because the competitor trades in a different home currency (Permjit Singh, 2009).

According to Grath (2004), the currency risks can be divided into three different categories: transaction risk, translation risk and economic risk.

There are three main types of currency risk as detailed below.

1.2.1 Economic risk

Economic risk occurs in firms that has activities with an international focus. Economic risk is used to describe the economic value of the parent company's home currency of a subsidiary's foreign future cash flow in its own foreign currency. In order to measure the combined financial exposure it is required to consider 1) all of the subsidiaries flows in their own currency and foreign currency and 2) the parent company's own exposure (Grath, 2004).

The source of economic risk is the change in the competitive strength of imports and exports. For example, if a company is exporting (let's say from the UK to a eurozone country) and the euro weakens from say €/\$1.1 to €/\$1.3 (getting more euros per pound sterling implies that the euro is less valuable, so weaker) any exports from the UK will be more expensive when priced in euros. So goods where the UK



price is £100 will cost €130 instead of €110, making those goods less competitive in the European market. Similarly, goods imported from Europe will be cheaper in sterling than they had been, so those goods will have become more competitive in the UK market. Note that a company can, therefore, experience economic risk even if it has no overt dealings with overseas countries. If competing imports could become cheaper you are suffering risk arising from currency rate movements.

Doing something to mitigate economic risk can be difficult – especially for small companies with limited international dealings. In general, the following approaches might provide some help:

i) Try to export or import from more than one currency zone and hope that the zones don't all move together, or if they do, at least not to the same extent. For example, over the six months 14 January 2010 to 14 June 2010 the €/US\$ exchange rate moved from about €/US\$0.6867 to €/US\$ 0.8164. This meant that the € had weakened relative to the US\$ (or the US\$ strengthened relative to the €) by 19%. This made it less competitive for US manufacturers to export to a eurozone country. If, in the same period, the £/US\$ exchange rate moved from £/US\$0.6263 to £/US\$0.6783, a strengthening of the US\$ relative to £ of only about 8%. Trade from the US to the UK would not have been so badly affected.

ii) Make your goods in the country you sell them. Although raw materials might still be imported and affected by exchange rates, other expenses (such as wages) are in the local currency and not subject to exchange rate movements.

1.2.2 Translation risk

Translation risks arises when the company has foreign subsidiaries or other real assets (example houses, forest or land) that needs to be translated from these accounts to the parent company's home currency in times of Financial Statements. The structure of a translation risk is directly related to the accounting principle of the parent company. Foreign exchanges gains/losses are not included in cash flow or have any tax related impact but remain unrealized until the subsidiary or the assets are sold (Grath, 2004).

Translation risk affects companies with foreign subsidiaries. If the subsidiary is in a country whose currency weakens, the subsidiary's assets will be less valuable in the consolidated accounts. Usually, this effect is of little real importance to the holding company because it does not

affect its day-to-day cash flows. However, it would be important if the holding company wanted to sell the subsidiary and remit the proceeds. It also becomes important if the subsidiary pays dividends. However, the term 'translation risk' is usually reserved for consolidation effects. It can be partially overcome by funding the foreign subsidiary using a foreign loan.

For example, take a US subsidiary that has been set up by its holding company providing equity finance. If the subsidiary were set up using 50% equity and 50% US\$ borrowings, its statement of financial position would look like this:

US\$m Non-current assets 1.5 Current assets 0.5 2.0 \$
Loan 1.0 Equity 1.0 2.0

The holding company's investment is only US\$1m and the company's net assets in US\$ are only US\$1m. If the US\$ weakens, only the net US\$1m becomes less valuable.

1.2.3 Transaction risk

Transaction risks occurs when the company has monetary assets and liabilities denominated in a foreign currency at a given time on the balance sheet, and that in the future you have expected commercial and financial flows of a foreign currency. A transaction risk can be expressed as of either a short-term claim/debt or long-term claim/debt. A transaction risk is both realized and unrealized income/loss, which is reported as either operating income/expenses or as financial income/expenses (Grath, 2004).

Transaction risk arises when a company is importing or exporting. If the exchange rate moves between agreeing the contract in a foreign currency and paying or receiving the cash, the amount of home currency paid or received will alter, making those future cash flows uncertain.

For example, in June a UK company agrees to sell an export to Australia for 100,000 Australian \$ (A\$), payable in three months. The exchange rate at the date of the contract is A\$/£1.80 so the company is expecting to receive $100,000/1.8 = £55,556$. If, however, the A\$ weakened over the three months to become worth only A\$/£2.00, then the amount received would be worth only £50,000.

Of course, if the A\$ strengthened over the three months, more than £55,556 would be received. It is important to note that transaction risk management is not mainly concerned with achieving the most favourable cash flow: it is mainly aimed at achieving a definite cash flow. Only then can proper planning be undertaken.



1.3 OTHER TYPES OF RISKS

1.3.1 Commercial or Credit Risk

According to Finnvera, commercial risks arise from foreign banks, companies or project companies. Typical commercial risks include the buyer's, guarantor's or borrower's unwillingness or insolvency to pay its debts (Finnvera.fi). This kind of risk can also be explained as a risk that arises if a customer or the other party of a financial instrument fails to meet its contractual obligations (adidas-group.com).

1.3.2 Political or Country Risk

The political risk or in other sources called country risk is explained by Finnvera as risks related to either the country of a foreign buyer or borrower, or to a third country which can cause the exporter, financier or investor credit loss. Political risks also include restrictions on transfer of the credit currency, rescheduling of debts, expropriation and war or insurrection. The term political risk refers to all factors which influence the country's economy, international relations and internal stability (Finnvera.fi).

1.3.3 Goods Delivery Risk

Damages in goods are caused by unexpected external factors. Shipped goods may be damaged in transit or even lost, and the insurance company might not even cover the damage. Nordea Bank suggests that by using a suitable payment method, insurance and delivery term, you may control the damage risks related to the products (Nordea.com).

1.3.4 Interest Rate Risk

Interest rate risk refers to possible changes in cash flow or in the value of assets and liabilities resulting from changes in interest rates (Fiskars Financial Statement 2010).

1.3.5 Liquidity Risk

Liquidity risk refers to the possibility of the company's financial assets proving that they are insufficient to cover its business needs or a situation in which arranging such funding would result in additional costs (Fiskars Financial Statement 2010).

2.0 METHODS OF FOREX RISK MANAGEMENT

Exposure Management techniques are classified into internal and external techniques according to their basic

origin. Internal techniques are mainly used as a part of company's regulatory financial management and aims at minimizing its exposure to exchange risk. These basically aim at reducing or preventing an exposed position from arising. The external techniques are used to provide protection against the possibility that exchange losses will result from the foreign exchange risk exposure which the internal measures have not been able to eliminate. These consist of basically the contractual measures to provide protection against an exchange loss which may arise from an existing translation or exposed position.

2.1 INTERNAL TECHNIQUES

2.1.1 Netting

Netting implies offsetting exposures in one currency with exposure in the same or another currency, where exchange rates are expected to move high in such a way that losses or gains on the first exposed position should be offset by gains or losses on the second currency exposure. It is of two types: bilateral netting & multilateral netting. In bilateral netting, two companies in the same group cooperate i.e. each pair of subsidiaries nets out their own positions with each other. Multilateral netting is where many companies in the group liaise with the group's treasury department to achieve netting where possible.

Example: If you owe your Japanese supplier ¥1m, and another Japanese company owes your Japanese subsidiary ¥1.1m, then by netting off group currency flows your net exposure is only for ¥0.1m. This will really only work effectively when there are many sales and purchases in the foreign currency. It would not be feasible if the transactions were separated by many months.

2.1.2 Matching

The netting is typically used only for inter-company flows arising out of group's receipts and payments. As such, it is applicable only to the operations of a multinational company rather than exporters or importers. In contrast, matching applies to both third parties as well inter-company cash flows. It can be used by the exporter/importer as well as the multinational company. It refers to the process in which a company matches its currency inflows with its currency outflows with respect to amount and timing. Receipts generated in a particular currency are used to make payments in that currency and hence, it reduces the need to hedge foreign exchange risk exposure. Hedging is required



for unmatched portion of foreign currency cash flows. The aggressive company may decide to take forward cover on its currency payables and leave the currency receivables exposed to exchange risk; if forward rate looks cheaper than the expected spot rate.

In matching operation, the basic requirement is a two-way cash flow in the same foreign currency. This kind of operation is referred to as natural matching. Parallel matching is another possibility. In parallel matching, gains in one foreign currency are expected to be offset by losses in another, if the movements in two currencies are parallel.

In parallel matching, there is always the risk that if the exchange rates move in opposite direction to expectations, both sides of the parallel match leads to exchange losses or gains.

If you have a sales transaction with one foreign customer, and then a purchase transaction with another (but both parties operate with the same foreign currency) then this can be efficiently dealt with by opening a foreign currency bank account.

For example:

1 November: should receive US\$2m from US customer. 15 November: must pay US\$1.9m to US supplier.

Deposit the US\$2m in a US\$ bank account and simply pay the supplier from that. That leaves only US\$0.1m of exposure to currency fluctuations. Usually, for matching to work well, either specific matches are spotted or there have to be many import and export transactions to give opportunities for matching. Matching would not be feasible if you received US\$2m in November, but didn't have to pay US\$1.9m until the following May. There aren't many businesses that can simply keep money in a foreign currency bank account for months on end.

2.1.3 Leading and Lagging

It refers to the adjustment of intercompany credit terms. Leading means a prepayment of a trade obligation and lagging means a delayed payment. It is basically intercompany technique whereas netting and matching are purely defensive measures. Intercompany leading and lagging is a part of risk-minimizing strategy or an aggressive strategy that maximizes expected exchange gains. Leading and lagging requires a lot of discipline on the part of participating subsidiaries. Multinational companies which make extensive use of leading and lagging may either

evaluate subsidiary performance in a pre-interest basis or include interest charges and credits to overcome evaluation problem.

Example: Let's imagine you are planning to go to Spain and you believe that the euro will strengthen against your own currency. It might be wise for you to change your spending money into euros now. That would be 'leading' because you are changing your money in advance of when you really need to. Of course, the euro might weaken and then you'll want to kick yourself, but remember: managing transaction risk is not about maximising your income or minimising your expenditure, it is about knowing for certain what the transaction will cost in your own currency. Let's say, however, that you believe that the euro is going to weaken. Then you would not change your money until the last possible moment. That would be 'lagging', delaying the transaction. Note, however, that this does not reduce your risk. The euro could suddenly strengthen and your holiday would turn out to be unexpectedly expensive. Lagging does not reduce risk because you still do not know your costs. Lagging is simply taking a gamble that your hunch about the weakening euro is correct.

2.1.4 Pricing Policy

In order to manage foreign exchange risk exposure, there are two types of pricing tactics: price variation and currency of invoicing policy. One way for companies to protect themselves against exchange risk is to increase selling prices to offset the adverse effects of exchange rate fluctuations. Selling price requires the analysis of Competitive situation, Customer credibility, Price controls and Internal delays.

2.1.5 Trading or Financing

Pattern Intercompany or transfer price variation refers to the arbitrary pricing of intercompany transfer of goods and services at a higher or lower rate than the market price. In establishing international transfer prices, one tries to satisfy a number of objectives. The firms want to minimize taxes and at the same time win approval from the Government of the host country. Yet, the basic objectives of profit maximization and performance evaluation are also significant. Often, it is not possible to satisfy all these objectives simultaneously, so a company must decide which objectives are more important. As a result, particular transfer price may be established arbitrarily to fulfill the objective involving international considerations.

For the strong currency exporter, the defensive approach is the only option available for export invoicing since the home currency is probably the strongest currency acceptable



to the customer. For the weak currency exporter, however, there may be significant gains from an aggressive currency-of-invoicing policy. In such circumstances foreign currency invoicing may be attractive to the exporter in expectation that the home currency equivalent sales proceeds would be changed by a foreign currency appreciation over the credit period. However, there are risks involved in switching from a weak currency to a stronger one. The relative strengths of the two currencies could reverse themselves in the future and hence currency of invoicing cannot be changed regularly. Price list adjustment and loss of customer's credibility are hindrances in changing currency of billing.

2.1.6 Asset and Liability Management

This technique can be used to manage balance sheet, income statement and cash flow exposures. It can also be used aggressively or defensively. The aggressive approach reflects on increasing exposed assets, revenues, and cash inflows denominated in strong currencies and to increase exposed liabilities, expenses, and cash outflows in weak currencies. The defensive firm will seek to minimize foreign exchange gains and losses by matching the currency denomination of assets/liabilities, revenues/expenses and cash inflows/outflows, irrespective of the distinction between strong and weak currencies. To archive these objectives, variables are grouped. Operating variables includes trade receivables and payables, inventory and fixed assets and financial variables cash, short-term investments and debt. The currency denomination of operating variables is determined by intrinsic business conditions, production and marketing factors. Financial variables can be used for exposure management purpose and thus corporate financial management has more discretion over currency denomination. The scarcity of currency finance is often a major problem.

The parent company would borrow the weak currency for long term while the subsidiary is usually restricted to short term borrowing. This is because (a) most subsidiaries are not individually listed on a stock exchange, so that the public issue of debt instruments is very difficult, hence, the bulk of long-term loans taken out by foreign subsidiaries are private placements; (b) many foreign subsidiaries are relatively small and not well known to the local financial community; and (c) host governments may be reluctant to allow term borrowing by expatriate subsidiaries.

2.2 EXTERNAL TECHNIQUES

External techniques are used by both exporters and importers as well as by multinational companies. The costs

of the external exposure management methods are fixed and predetermined. The main external exposure management techniques are forward exchange contracts, short term borrowing, discounting, forfeiting and government exchange risk guarantees.

2.2.1 Forward Exchange Contracts

Forward exchange contracts refer to agreements in which two parties agree upon the exchange rate at which currencies will be exchanged at a future date or within a future specified duration. Forward contracts reduces exchange risk element in the foreign transactions. Price is paid for the protectionism and best-cost alternative should be chosen to reduce the cost of purchase. There is, however, some disagreement on how to calculate cost of forward cover mainly because there are two kinds of cost involved an ex-ante cost and an opportunity cost.

2.2.2 Forward Contracts

Forward cover can be used to hedge purchases as well as sales. It may be two types namely: forward purchases cover and forward sales cover. Forward purchase cover is extended to have terms and conditions related to export of goods and services. Period of delivery of currency should not be beyond seven days of the probable date of receipt as per the purchases forward cover. It can be extended for purchases of proceeds of foreign currency notes from licensed fully fledged money changers, provided that the currency notes were exported through the bank, for realisation and credit to the bank's account. All other requirements related to export can be hedged by it.

2.2.3 Futures

Futures are contracts to buy or sell financial instruments, for forward delivery or settlement on standardized terms and conditions. Future contracts are similar to forward contracts but are more liquid as these are traded on recognized exchanges.

2.2.4 Options

Options are rights and not obligations to make buy and sell decisions. An option is a contract between two parties known as the buyer and the seller or writer. The buyer pays a price or premium to the seller for the right but not the obligation to buy or sell a certain amount of a specified quantity of one currency in exchange at a fixed price for a specified period of time. The right to buy is a call option and the right to sell is a put option.



2.2.5 Swaps

Swaps refer to a contract between two parties, termed as counter-parties, who exchange payments between them for an agreed period of time according to certain specified rules.

It is defined as a financial transaction involving two counter-parties who agreed on terms to exchange streams of payments or cash flows overtime on the basis of agreed at the beginning of the contract. Swap is like a series of forward contracts. Swaps involve a series of exchanges at specific futures dates between counter parties.

2.2.6 Short term Borrowing

Another alternative to hedge risks in the forward market is the short-term borrowing technique. A company can borrow either dollar or some other foreign currency or the local currency. Through short term borrowing techniques, two major difficulties of the settlement dates and the continuing stream of foreign currency are easily solved. Short-term borrowing has some advantages over forward cover. The cost of short-term borrowing cover is the home currency amount which would have been received if the exposed receivable has been measurable. The foreign currency converted into home currency at the settlement dateless spot rate is the amount which the short-term borrowing technique yielded.

2.2.7 Discounting

This technique is used to resolve the problems of continuing foreign currency exposures and uncertain settlement dates. The discounting technique for covering receivables exposures is very similar to short term borrowing. In discounting techniques, the effective discount rate less the home currency deposit rate rather than the foreign currency borrowing rate less the home currency rate, as in short term borrowing techniques, is the cost. The basic aim in discounting is to convert the proceeds from the foreign currency receivable into the home currency as soon as possible.

2.2.8 Forfeiting

Forfeiting can be used as a means of covering export receivables. When the export receivable is to be settled on open account except by bill of exchange, the receivables can be assigned as collateral for selected bank financing. In forfeiting one simply sells his export receivables to the factor and receives home currency in return. The cost involved include credit risks, the customers, default risk, the cost of financing if the exporter wants to receive payment before the receivable maturity date and the cost of covering the exchange risk by the forward discount or premium. Forfeiting, therefore, tends to be expensive means of covering exposure. There may be offsetting benefits such as

obtaining export finance and reducing sales accounting and credit collection costs.

2.2.9 Government Exchange Risk Guarantee

Government agencies in many countries provide insurance against export credit risk, and introduce special export financing schemes for exporters in order to promote exports. In recent years a few of these agencies have begun to provide exchange risk insurance to their exporters and the usual export credit guarantees. The exporter pays a small premium on his export sales and for this premium the government agency absorbs all exchange losses and gains beyond a certain level.

Initially, such exchange risk guarantee schemes were introduced to aid capital goods exports where receivable exposures were of long-term nature. Government exchange risk guarantees are also given to cover foreign currency borrowing by public bodies.

All the various exposure management techniques are not available in all circumstances. This is mainly because of limitation imposed by the market-place and by regulatory authorities. Similarly, the availability of internal techniques is largely a function of the international involvement of each company.

2.2.10 Divestment

Divestment can be a way of managing a risk. Divestment means a sale of an asset, for example for a corporation divestment can be referred to as a sale of a subsidiary to raise capital or to focus on the parent company. Divestment is the opposite of investment (investorwords.com). A downturn in a subsidiary's profitability can lead to a divestment decision. The more unrelated a subsidiary's business unit is compared to the core business plan of the parent firm, the more likely that the unit will be divested (Heather, 2010). According to Holmberg J., Senior Risk Advisor and partner at Operandi Oy, a privately owned and independent advisory company specializing in foreign exchange and interest rate risk management consulting, is unprofitable units sold or alternative investing in a foreign unit, done to minimize the currency risk. Divestment or investment of a currency risk is an internal risk management method to minimize the currency risk (Holmberg, discussion).

2.2.11 Value-at-Risk

Value-at-Risk is a methodology that estimates the potential fair value losses in market risk sensitive instruments (Nokia – in, 2010). The most traditional method on how to measure



a risk is volatility, but the problem with volatility is that it does not take into account - in the measurement the movements of an investment, for example, a stock investment can be volatile. For an investor the risk is about the odds of losing money, and Value-at-Risk methodology (VaR) is based on that. VaR answers the question, "What is the worst case scenario?" or "How much can I really lose in a really bad month?". VaR calculates the maximum loss expected on an investment over a given time period and a given specified degree of confidence. There are three methods of calculating VaR: the historical method, the variance-covariance method and the Monte Carlo simulation (Harper, 2010).

CONCLUSION

Foreign Exchange Transaction Risks are very important since they are macroeconomic variables that may impact adversely on developing economies. These countries have characterized with highly volatile currencies whose exchange rates fluctuate significantly as they are mostly net importers of both raw materials for industrial goods and finished goods for domestic consumption. These countries mainly exhibit shortage economies and hence traders tend to hoard any foreign currencies realized through trade instead of having free exchange rate systems with full disclosures of foreign exchange inflows. Globalisation of financial markets and developments in exchange markets have resulted into complicated transnational exposure management strategies. The central banks of many developing nations have to struggle to raise foreign exchange reserve to the level that would cushion the local currency from excessive depreciation. The International lenders who comprise the world bank, international finance corporation help in alleviation foreign currency shortfalls by granting loans denominated in dollars.

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