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A Survey of Multinational Company Accounting Foreign Exchange Exposure

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Abstract:

Purpose: *One main type of foreign exchange exposure is translation exposure. Translation exposure measures potential accounting changes in a firm's consolidated financial statements that result from a change in foreign exchange rates. The scope of this paper is to address translation risk by examining the preferences of the managerial team for specific financial instruments and strategies.*
Design/Methodology/Approach: *The first part of this paper will illustrate some background information on the translation form of foreign exchange exposure. The second part of the paper addresses the methodology and includes a survey sent to over two hundred multinational companies who were listed in the Forbes 500 top multinational companies and presents the results. The last part of the paper presents the conclusions that are drawn from the responses.*
Findings: *Foreign exchange exposure connects to a firm's profitability and net cash flow. Market value changes as a result of a change in exchange rates. An important duty of the financial manager is to measure the effect of foreign exchange exposure and manage it in such a way as to maximize the profitability, net cash flow and market value of the firm. When foreign exchange rates change, the effects on a firm can be measured in several ways.*
Practical implications: *Appropriateness and Techniques of Hedging Accounting Currency Risk.*
Originality/Value: *Translation Foreign Exchange Exposure Should Infrequently be Hedged Since it does not nduce a Cash Flow issue.*

Keywords: *Accounting,Current Rte Method, Exchange Rtes, Foreign Exchange Exposure, Hedging, Temporal Method, Translation of Financial Statements.*

JEL codes: *G11, G12.*

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Part I

1. Foreign Exchange Risk Exposure Defined

Foreign exchange exposure is a measure of a firm's profitability, net cash flow, and market value changing as a result of a change in exchange rates. An important responsibility of the financial manager is to measure the effect of foreign exchange exposure and to manage it in such a way as to maximize the profitability, the net cash flow and the market value of the firm. When foreign exchange rates change, the effects on a firm can be measured in several ways.

There are three main types of foreign exchange exposure are translation, transaction, and economic exposure. Economic exposure measures the change in expected cash flows as a result of an unexpected alteration in foreign exchange rates. Translation exposure measures accounting based changes in the consolidated financial statements that have been prepared prior to a change in the exchange rate. Transaction exposure measures obligations that have incurred prior to a change in the rate of exchange, but must be settled after a change in the rate of exchange.

A fourth type of exposure, tax exposure, is also present since a change in the rate of exchange has immediate income tax implications regardless of the three other types of exposure

2. Translation Exposure

Translation Exposure, otherwise known as Accounting Exposure, stems from the need to redo consolidated worldwide operations according to the predetermined rules. The translation follows rules set up by an accounting association such as GAAP, the parent firm's government, or by the board of the fi1m itself. The revenues, expenses, assets and liabilities that have already been calculated in a foreign currency, must now be restated in terms of the home currency in order to be consolidated with home currency accounts.

A practical example of translation exposure would be the loss in dollars for a bank balance of one million yen held in a Japanese bank for a U.S. company. If one yen was originally worth two dollars then the bank balance would be reported on the U.S. parent company's books at a dollar value of two million dollars (2* 1,000,000 = 2,000,000).

However, if the yen would later drop in value to one dollar, the U.S. parent company would then reported the bank balance as worth one million dollars on its books, leaving a loss of one million dollars.

This loss as governed by various accounting rules, might be written off directly against the stockholders equity in the form of a reserve account (they keep all

gains and losses for such situations, so that a reserve can be available to offset losses). The loss may even be reported in the parent company's income statement as a deduction from net income.

There are many translation methods that have been developed by the accounting profession in translating foreign currency into the currency of the parent (reporting) company. However, the three that have been commonly used are the current rate method, monetary/nonmonetary method or temporal method, and current/noncurrent method.

The current rate method has been the most prevalent method used throughout the world. It is practiced by most of Europe, in Latin America, the Far East, Africa, and the United States. Although its applications may differ among multinational firms, as defined by FAS #52 for the United States, assets and liabilities are to be translated at the current rate of exchange or the balance sheet date. Cost of goods sold, depreciation and all other income statement items are translated at either an approximated weighted average exchange rate for the period or at the actual exchange rate on the dates the various gains, losses, revenues and expenses are incurred. All existing equity accounts, such as Paid-in- Capital and common stock are translated at historical rates.

It is important to realize that gains and losses caused by translation adjustments are not included in the calculation of Net Income. Instead they are reported and accumulated separately in CTA account (Cumulative Translation Adjustment). If the foreign associate which accumulated those gain/losses is later sold or liquidated, the CTA account will be closed out and the net balance will be reported as part of the gain or loss on sale or liquidation, thereby effecting net income for that period.

The monetary/nonmonetary was given a specific set of rules in the United States with the issuance of FAS #8 in 1975. Because of its controversy, FAS #8 was later replaced by FAS #52 in December 1981. Under the monetary/non monetary method, monetary assets (cash, accounts receivable ...) and monetary liabilities (current liabilities, L-T Debt) are translated at current exchange rates, while regular assets are reported at historical exchange rates. Income statement items are translated at an average exchange rate for that period. However income statement items that are directly associated with non-monetary assets and liabilities,, such as depreciation and cost of goods sold are translated at their historic rate.

The current/noncurrent method, which is no longer allowed under GAAP rules, was used widely throughout the U.S. used prior to 1976 and is still used by many non-U.S. firms today. The current/noncurrent method translates all current assets and liabilities of foreign affiliates at the home currency exchange rate that is in effect on the date of the statement. Noncurrent assets and liabilities are translated

using the historical rates on the dates in which the assets were acquired and the liabilities were incurred.

Items in the income statement are generally translated at the average exchange rate of that period. Income statement items that relate to nonmonetary assets or long-term liabilities are translated using the same rates as the corresponding balance sheet item. Exposure to gains and losses from fluctuating currency values is determined by the net of current assets less current liabilities. Gains and losses on long-term assets and liabilities are not shown on the balance sheet.

There are several ways to manage translation exposure. Among them are balance sheet hedging, forward hedging, and money market hedging.

In balance sheet hedging, a company will try to set an equal amount of exposed foreign currency assets and liabilities on its balance sheet. By making this arrangement for each foreign currency, net translation exposure will be zero so that a change in exchange rates will change the value of the exposed assets in an equal and opposite direction to the change of the exposed liabilities.

It is important to note that since translation exposure is measured by currency, equality of the exposed assets is only necessary on a worldwide basis and not on an individual basis for each foreign affiliate. Costs of balance sheet hedging will depend on relative borrowing costs. An important note is that balance sheet hedging is a compromise in which the nominations of balance sheet accounts is altered, at a cost of operating efficiency or borrowing costs, in order to achieve foreign exchange protection.

When using the forward market to hedge translation exposure, a company will sell the exposed currency in the forward market, purchase the exact currency in the spot market on a later date, and then deliver the purchased currency against the forward contract obligation. A formula is set up in determining the necessary size of the relevant forward contact:

Forward Contract Size = Potential translation loss in dollars /
(Forward rate in dollars per local currency - Expected future spot rate in dollars per local currency unit).

The difference between the forward rate and the expected future spot rate, will give us the profit per unit of the parent company's reporting currency. Dividing potential translation loss this by number will give the amount of exposed currency that must be sold in the forward market.

It is important to note that profits on forward contracts are subject to taxation yet translation losses are not tax deductible. It is therefore more effective to have a forward contract carried out by a foreign affiliate of the parent company located in a

low-tax jurisdiction. In addition, it is important to realize that a forward contract will act as matched hedge against a translation loss only if the company correctly forecasts the future spot exchange rate. A miscalculation in this forecast will create a mismatch in the hedge, causing the company to have an unexpected gain or loss depending on the direction of the error.

The use of a money market hedge in reducing translation exposure is done by borrowing a foreign currency, exchanging the currency for dollars, and then investing those dollars. At the maturity of the investment, the dollar proceeds would be exchanged back into the foreign currency to pay back the loan. To be effective, the maturity of the dollar investment must match the maturity of the foreign investment loan and the amount borrowed should be the exact amount of translation exposure.

Part II

3. Methodology and Analysis of Data

To get information on the preferences of the managerial team on the financial instrument used in managing translation exposure, a survey was e-mailed to the Chief Financial Officer's of two-hundred United States based Multinational Companies. The survey method although subjective in nature it is relevant and reliable when seeking responses to individual preferences as long as the rationale is clear and the steps taken are properly described(Collis and Hussy, 2013).

The cover letter explained to them that the purpose of the survey was to see if and how they managed their foreign exchange risk. It was also indicated to them that it was an academic research paper. The firms receiving the survey were the two hundred of the largest Multinational Companies appearing in the Forbes 500 list. The fact that these corporations had foreign operations was verified by checking the Directory of American Firms Operating in Foreign Countries (Columbia University Business Library). The email indicated that all responses would be anonymous and confidential.

A total of thirty- two usable responses were returned for a response rate of sixteen percent. The response rate for mail questionnaires is usually around twenty-five percent, but can be even lower depending on the nature of the survey.

This specific survey asked the responding CFO to check: (a) if the corporation hedges translation foreign exchange exposure or not and (b) to indicate the technique used to hedge selecting among the following:

Money Market Hedge: _
Forward Foreign Exchange Hedge: _
Currency Options: _
Diversification of Operations: _
Diversification of Financing: _

Diversification of sales: _
Diversification of sourcing: _
Futures Hedging: _
Other: _

With respect to the hedging of economic foreign exchange exposure:

Question one (1) sought to assess whether or not the corporation hedged translation foreign exchange exposure. Approximately nineteen percent (19%) of the respondents indicated that they do in fact hedge against translation foreign exchange exposure.

Question two (2) asked the CFOs to identify how the corporation hedged against translation foreign exchange exposure by indicating the preferred tool.

Virtually all nineteen percent (19%) of the translation hedging companies do so through the use of forward foreign exchange hedging. Seventeen percent (17%) of those companies use currency options in addition to the forward foreign exchange hedge to hedge against translation foreign exchange exposure.

Part III

4. Conclusions

This study provides evidence on the translation foreign exchange exposure practices reported by executives of US based MNCs, From these responses, it is possible to make several conclusions and compare the results to those of previous studies.

1. The coverage against translation exposure continue to rise relative to the shift to FAS #52. Previous studies have indicated that during the regime of FAS #8, multinational companies hedging of translation foreign exchange exposure was approximately equal to their protection against economic foreign exchange exposure. However, after the shift from FAS #8 to FAS #52, there was a precipitous drop in protection against translation foreign exchange exposure (Malindretos *et al.,* 1993; 1995).
2. Multinational companies seem to be more concerned with hedging against economic foreign exchange exposure than translation exposure (Batran *et al.,* 2010).
3. In addition, at that time, studies indicated that coverage by CFO's for economic foreign exchange exposure remained high and did not alter substantially between the two financial accounting regimes.
4. Consistent with previous studies, a significant percentage of the respondents did not cover themselves against translation exposures (Hudson and Laing, 2014).
5. The two most widely used techniques to hedge foreign exchange exposure are the forward foreign exchange hedge and currency options. With regards to those respondents who hedge translation foreign exchange exposure, the forward foreign

exchange hedge is used almost exclusively over the hedging processes (Chiang *et al.,* 2013).

This survey addressed the preferences and the actions of US based MNCs regarding translation exposure using the questionnaire method. Further studies seeking the responses of non-US based MNCs to translation exposure prectices would be important.

Furthermore the questionnaire method has well known limitations as well as benefits. Supplementary sources as firms' financial reports would strengthen the analysis. For example, the listed exposure estimated from the financial statements is compared to the exposure from the survey.

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