FOREIGN CURRENCY RISK HEDGING

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Abstract

This paper presents the traditional types of exchange rate risk faced by firms and some of principal methods of exchange risk management that a company which make foreign currency operations can use. Foreign currency risk management involves both assessing the risk faced by the companies and adopting measures for the risk hedging or reduce the damage it may cause. The damages result from the company's unfavorable difference between the exchange rates of the currencies in which the transactions are made.

Keywords: *currency, exchange rate, derivative contracts, currency risk, risk hedging*

1. Introduction

Currency risk is defined like the probability to register loss in economic and financial transactions as a result of unfavorable movements of the contract currency, in the period of time between the date when was sign the contract and the maturity date. The exchange rate is the rate at which the foreign exchange market converts one currency into another. One of the functions of foreign exchange market is to provide some insurance against foreign exchange risk, which could be translate into adverse consequence of unpredictable changes in exchange rates[1].

The currency risk of a company is the result of foreign currency transactions or foreign currency borrowed funds in case of the exchange rate of these currencies relative to the national currency fluctuates (to the detriment of the company). Exchange rate risk management is an integral part in every firm's decision about foreign currency exposure[2].

The main methods of measuring exposure to currency risk are:

- currency risk assessment through transactions
- by converting balance sheet items denominated in foreign currency into national currency
- measuring the current value of the company according to the unanticipated exchange rate fluctuation

The currency risk approach can be done from two perspectives:

- Passive method - which supposes only accepting and bearing currency risk
- The active method - which involves the management of foreign exchange risk, either by operations on the spot market or by transactions on the futures market, through which the manager's purpose is to obtain some gains from currency exchange differences or interest rate differences for the currencies in which the transactions are made.

Thus, the management of foreign exchange risk involves operations made in the domestic currency or foreign currencies, depending on the fluctuations of currencies exchange rates, in which the transactions are made Foreign exchange risk management can be achieved through international diversification of investments and fundings, which refers to actions on the gap between receivables and payments in foreign currencies.This actions will generate some profit for the companies, provided by the exchange rate developments, or will help the companies to hedge the currency exchange risk. But, the debtor's request must meet the creditor's offer, because the influence of lending activity is directly proportional to the degree of the risk involved[3].

2. Classification of foreign exchange risk

Foreign currency risk may result from various transactions and operations made by companies or from the manner in which the financial results of the company are expressed as a result of exchange rate fluctuation. Thus, foreign exchange risk can be classified into four categories: sovereign risk, currency risk, translation risk and transaction risk[4].

The risk of sovereignty results from political changes in a country. These changes may affect the country's economic activity, as well as the results of

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[2] Allayannis G., Ihrig J., Weston J. – "Exchange Rate Hedging: Financial vs. Operational Strategies", American Economic Review Papers and Proceedings, Vol. 91(2), 2001, pp 391 -395.

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[4] Georgescu – Golosoiu Ligia – „Mecanisme valutare", Editia a II-a, Bucuresti, ASE Publishing House, 2006.

companies from other countries if they record their operations in the currency of that country.

Currency risk may result from the setting of exchange rate fixes (fixed, free floating, managed free floating) and from existing currency restrictions on the currency market on which transactions are conducted.

Translation Exposure[5] is the risk that foreign exchange rate fluctuations will adversely affect the translation of the subsidiary's assets and liabilities – denominated in foreign currency – into the home currency of the parent company when consolidating financial statements

Transaction risk is the probability of recording losses in a foreign currency transaction that has unfavorably evolved. As a result, such a loss can result from both receivables and payment obligations, depending on the evolution of the currency in which the operations are denominated.

It also results from this classification that the currency risk can occur at any time in the activity of a company which performs foreign currency operations. Even an activity considered to be profitable may generate losses if:

- the exchange rate recorded unfavorable developments and impacts on the company's performance;
- the company has foreign subsidiaries in a country whose currency weakens;
- the company make international trade and the exchange rate moves unfavorable.

Foreign exchange risk management involves protection, risk measurement and proper management. Protecting, limiting or covering foreign exchange risk involves both diversifying the portfolio of foreign currency assets and liabilities and using risk mitigation techniques[6].

3. The main financial techniques for foreign exchange risk management

Measuring and managing exchange rate risk exposure is important for reducing a firm’s vulnerabilities from major exchange rate movements, which could adversely affect profit margins and the value of assets[7].

A method by which could be avoid the undesirable effects of foreign exchange risk is to enclose a currency clause or a price review clause in the contract[8]. Applying different non-contractual measures can relieve exporters and importers of negative effects. These measures consist of contracting parallel loans, recourse to futures operations, foreign exchange hedging and derivative operations on hedging market.

The main financial techniques for currency risk management are:

1. Hedging operations - that are conducted on the interbank market or on the foreign currency futures market. The interbank market is a market for direct negotiation between parties, where the transactions are not standardized. Instead, futures markets are organized markets where contracts are standardized.
2. Foreign currency options (FX Options) - on the interbank market or on an organized market
3. Currency swaps - traded on the banking market.

Financial instruments used to hedge currency risk have been developed since the 80s and consist, especially in derivative contracts having as underlying assets a currency. Such contracts may be concluded by direct agreement between two trading partners or may be negotiated freely in an organized market. Derivatives are financial instruments used by investors as speculative, and also for risk reduction on financial markets. Currency speculation is happening on foreign exchange markets and involves the short-term movement of funds from one currency to another, for the profit from shifts in exchange rates.

Currency risk management involves three steps:

1. identifying and quantifying the risk to be managed
2. identifying the instruments that can be used to cover foreign exchange risk; Thus, the type of financial instrument (call option, put option, forward contract, etc.) and the meaning of the transaction (purchase or sale) must be identified.
3. valuation of the amount, expressed in the currency of the contract and the maturity of the cover.

Hedging is a way for a company to minimize or eliminate foreign exchange risk. The transaction with forward contract for currency risk hedging means that, the buyer make the commitment to pay a foreign currency amount at a certain time, and on the other hand, he borrows the same amount in the same currency at the same repayment term. Thus, the buyer of the foreign currency is covering from the risk of currency weakens, because at the future term, the potential loss from the currency purchase will be covered by the equal gain generated by the loan[9].

The exchange risk hedging involve the use of derivatives, like: forward contracts, currency futures, options and currency swaps[10].

a) Forward contracts

The companies can use forward contracts to sell or purchase foreign currency amounts at a future time

[5] https://strategiccfo.com/translation-exposure/.
[6] Ciurlău L. Managementul riscului valutar prin intermediul tehnicilor de hedging // Finanțe – Provocările viitorului, 2006, nr.5, p.235-240.
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[10] https://www.bancpost.ro/Corporate-Banking/Global-markets.

and a given exchange rate. The settlement takes place at the time and the exchange rate mentioned in the contract, regardless of any fluctuations of the exchange rate on the foreign exchange market.

This kind of derivatives contracts offers some benefits, like:

- It mitigates the risk of exchange rate fluctuations
- It increases the management's control over the company's cash-flows and profitability
- The exchange rate used in budgeting is fixed ex ante

This product is suitable for companies which make businesses in foreign currencies, if:

- Their incomings are denominated in one currency and their payments are denominated in another currency
- The companies register a time gap between incomings and the corresponding payments
- The companies use a certain level of the exchange rate when they pricing their products

b) Flexible forward transactions

A flexible forward transaction has the same characteristics as a forward transaction with only one specific difference, which is that the settlement of the transaction can take place at any time until the maturity of the contract. The client may choose to make partial settlements for his transaction at any time until the maturity of the contract, having the only obligation to exchange the entire notional amount until maturity.

This product can help the company in the event of future collection or future payments in foreign currencies, if it wishes to protect itself from potential unfavorable fluctuations of the exchange rate. In the same time, a forward contract offers:

- Flexible tenor for the foreign exchange transactions as the settlement may take place at any time until the maturity date, at the same pre-established exchange rate
- Better liquidity management
- Better coordination between incomings and payments

This product is suitable for the companies which make businesses in foreign currencies and have incomings denominated in one currency and their payments are denominated in another currency. In the same time, a flexible forward transaction is the right financial instrument for the companies which have a time gap between incomings and the corresponding payments and they can anticipate the total volume of their payments but they cannot be certain in what regards the exact moment of the currency incomings.

c) Currency Futures contracts

Futures contracts[11] are advance orders to buy or sell a currency. An investor expecting to receive cash flows denominated in a foreign currency on some future date can lock in the current exchange rate by entering into an offsetting currency futures position.

The standardization of the Futures contract means that the currency that is the underlying asset of the contract always has the same volume (eg 1000 euro / contract) and delivery will be made at predetermined maturities (eg, quarterly).

In the currency markets, speculators buy and sell foreign exchange futures to take advantage of changes in exchange rates. Investors can take long or short positions in their currency of choice, depending on how they believe that currency will perform.

The buyer of Futures contracts will win if the price of the contracts he has bought will increase and he will lose if the price drops. On the other hand, the seller of Futures contracts will win when prices fall and will lose when prices rise.

Currency Futures contracts are mainly used for speculation and foreign currency risk hedging. Compared to other financial instruments, these contracts have several disadvantages: they are standardized in terms of settlement value and liquidation month, and investors have to accept conditions imposed by stock exchange regulations. But these contracts also have advantages. The advantages of Currency Futures contracts are the speed of sign and close the contract and the low guarantee (reserve deposit) from the investor.

The Foreign Currency hedging using foreign currency Futures contracts involves the existence of an open foreign currency position in a currency that has been acquired outside the Futures market. To eliminate or minimize the currency risk involved by this position, the currency hedging, in its classical form, requires that the operator to initiate an opposite and equal position on the Futures contracts, that have as underlying asset the same currency of the open position outside Futures market ,and the second currency - the national currency of the operator. Thus, the hedger transfers the risk to the Futures market.

d) Option contract

Options give companies the right, but not the obligation, to sell or buy a specific amount of a currency at a pre-agreed exchange rate for a specified time period. In order to have this right, the client pays a premium.

An option contract has the same functionality as an insurance contract. The client pays a premium, (which could be quite costly), in order to be able to take advantage of its right in case a certain event occurs. Options protect companies from unfavorable currency movements. To mitigate the cost of purchased options, companies can utilize options strategies that combine purchased and written options. As a result of the volatile foreign currency environment, more companies are turning to options for their increased flexibility.

The benefits offered by option contracts are:

- Complete foreign exchange risk hedging
- Better cash-flow and profit management

[11] http://www.investopedia.com/articles/forex/08/invest-forex.asp.

- Establishing a level for the exchange rate that will be used for constituting the budget of the company
- The possibility to benefit of a favorable exchange rate movement

This kind of derivative contract is suitable for companies which:

- Have Incomings, which are denominated in one currency and the payments are denominated in another currency
- Have a time gap between incomings and the corresponding payments
- Use a certain level of the exchange rate when pricing their products
- Want to be able to drop the contract and take advantage of a favorable exchange rate movement if this happens.

The buyer of an option contract has a Long position and the option contract's seller acquires a Short position. The transaction is made with two types of contracts: Foreign currency options - CALL and Foreign currency options – PUT.

The CALL option gives its buyer the right, but not the obligation, to buy a specific amount of currency at a pre-established rate in exchange of a premium paid (the cost of the option).

The PUT option gives its buyer the right and not the obligation to sell a specific amount of currency at a pre-established rate in exchange of a premium paid (the cost of the option).

A large series of complex products can be obtained on the basis of these two types of vanilla options in order to build-up a product that is most suitable for the company's foreign exchange risk hedging needs.

e) Currency Swaps

Swaps are a financial instrument that allows the buyer to exchange one set of each flows for another, making periodic payments based upon some financial price and in return receiving periodic payments based upon some other financial price[12]. Swaps could be transacted between companies with international business and their banks or between banks, for transforming a currency into another for a limited period without incurring foreign exchange risk.

A currency swap transaction represent an agreement to exchange one currency for another at an agreed upon exchange rate. There are two simultaneous transactions, one of buying and one of selling the same amount at two different value dates (usually SPOT and FORWARD) and at exchange rates (SPOT and FORWARD) that are pre-agreed at the moment when the transaction is closed.

In a currency swap, the holder of an unwanted currency exchanges that currency for an equivalent amount of another currency. Thus, the client exchanges his interest and currency rate exposures from one currency to another or benefits of bank financing at a lower rate.

Thus, a currency swap helps the company[13] to have a better management of financial resources, while also protecting it from potential unfavorable trends in the market.

Conclusions

In managing currency risk, multinational firms utilize different hedging strategies depending on the specific type of currency risk.

Foreign currency risk is provided by transaction, economic and translation risk and could affect especially the companies with foreign subsidiaries. In a country whose currency is weakens, the subsidiary's assets will be less valuable and this situation will affect the company's cash-flow and the profit. In the same time, the transaction risk will affect the companies which make import and export activities.

In conclusion, the foreign currency hedging is important for companies, such time as eliminate risk over the long time and protect the investors against a large currency's declines. The foreign currency hedging could be done using the money market instruments or the financial market, in wich instruments like treasury bills and commercial papers are traded.

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