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MANAGINGCURRENCY RISKINTERMSOF FLOATINGRATES

Theoretical article

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Abstract

Exchange rate fluctuations of a currency generate currency risk to the extent that it isused to make international transactions. These operationsare subject to currency risk, as exchange rates change frequently from one period to another, and on the other hand, speculation in the foreign exchange market affect the exchange rate through interventions they perform. This paper explores a topic of great interest, especially as exchange rate fluctuations and the uncertainty regarding the future of a currency relative to major currencies is a big problem for most economic actors. Regardless of whether they are importers or exporters or have significant debt currency depreciation or appreciation causes significant losses. Proper management and active currency risk is a way to reduce the damage caused by exchange rate fluctuations.

1.Introduction

Business and financial operations imply relationships between partners in different countries or currency areas, involving the conversion of a currency to another. Exchange rate fluctuations of a currency are generating currency risk to the extent that it is used to make international transactions. These operations are subject to currency risk because on the one hand, exchange rates change frequently from one period to another, and on the other hand, speculation in the foreign exchange market affects the exchange rate through the interventions of the organizationswhichexecute them.

Banks, firms and governments operating with foreign parties feel the need to manage currency risk given the changes in exchange rates on the market. Exchange rate fluctuations and the uncertainty regarding the future of a currency,linked to other major currencies,aremajor problems for most economic actors. Regardless of whether they are importers or exporters or have significant debt in a foreign currency, depreciation or appreciation causes substantial losses and therefore, in this paper we focused our attention on management of the foreign exchange risk that represents a way to reduce the damages caused by exchange rate fluctuations.

2.Currency risks in commercial operations

Currency risks occurred on the background of international economic and monetary instability during the 70^{s} due to unpredictable fluctuations, interest rates and the exchange rate. *Currency risk* can be defined as the probability of loss on international trade agreements or other economic relations, due to changes of contract exchange ratesduring the period of time that begins from the moment of concluding the contract and ends with the date when the currency isacquired (Toderascu, 2013).

Regardless of the specific activity, for a company, a bank, a trader etc. to be active, strong and stable on the market, must recognize, understand and evaluate the currency risks. The set of measures expected to be taken in order to hedge against risks involves detection and analysis of risk factors,the use of updating methods or concepts, among which we can distinguish duration and sensitivity (Paxino&Moşteanu, 2002).

The analysis of all aspects regarding the genesis, evolution, development, control and operation under risk is permanent. However, extensive research should be linked to financial performance, efficiency and the experience of economic operators.

Involvement in a transaction is based on the assessmentsover the exchange rate of the currency in which payment or receipt is to be made. Therefore, these kind of approachesare subject to a phasethat is preliminary to the actual commencement of the transaction. Expectations, even when using sophisticated methods are not reliable andtherefore, their use in making the decision on participation or non-participation in a transaction implies a certain risk.

Currency risk depends on the currency used in the contract and its related the with the evolutionof the price of the domestic currency which the firm's accounting uses to calculate costs, profits, etc., the position of the company in relation to customers, in the sense that amounts receivable or payable in the respective currency are more common, the size of the amount to be received or paid in the currency against which we define our risk.

The existance of risk involves the knowledge of how to reduce exposure to risk (Pecican, 2000). In general, the reduction of risk in the operations which include optionsbetween currencies is the result of a good choice over currency in which the transaction is carried out. In commercial transactions, it is in the exporter's interest to choose the contract currency whichgives sufficient guarantees regarding stability or appreciation and it is in the importer's interest to also choose the currency (in which the payment is made) which shows thepromise of stability and for which there are signs of depreciation. Each option is based on a preliminary study over the evolution of exchange rates (spot and forward), and the factors that can change the course of a currency (such as the trade balance, inflation, interest rate policy, etc.).

Exporters are suffering from the effects of currency risk in the cases that, on which at the thereceival of the contracted amount, the currency of the contract, in which the transaction took place, has a lower purchasing power and has depreciated from the time of the conclusion of the international trade agreement. Depreciation of the contract currencyis a disadvantage to exporters, while in turn, the importers will benefit.

For importers, foreign exchange risk arises when the currency used when the transaction was concluded has a higher purchasing power than when concluding the contract, as it appreciates during this time. In this case, the currency risk is reflected by additional financial burden on the importer as he has to purchase an amount denominated in another currency, withan equivalent value to the amount expressed in the currency of the contract.

Currency risk management, in the conditions offered by flexible exchange rates, involves minimizing losses due to exchange rate variation.

Risks in the financial sector, for the population, could be mitigated if the people informed themselves in advance when they decide to take out a mortgage. The European Central bank (ECB) recommends that banks are required to present, in acustomized sheet with information for those requestingforeign currency loans, actual data on the evolution of the monthly installment due to increases in the exchange rate. In addition, the ECB supports the Commission's proposal for banks to present a scenario with the probable changes of the monthly credit payments due to increases in interest rate, in the case of variable rate tenders.

The exporters can avoid exposure to foreign exchange using the simplest non-coverage technique –showingthe selling prices of a product / service in a foreign currency or by choosing another technique in the same category such as balancing receipts in a foreign currency with expenses in the same currency foreign currency.

The effects of exchange rate risk can be prevented or mitigated through contractual or non-contractual measures. When negotiating the contract, the parties analyze currency legislation in the countries of origin, evolution of theexchange market and the foreseeable impact of the contract's foreign currency exchange rate.

Exchange rate fluctuations threaten the companies engaged in foreign trade, but can be easily avoided by transferring the risks in the currency market and on the derivatives market. In the first case, that of currency markets, banks carry out operations in national currency to the detriment of foreign currency, or currencies fromoutside the national currency areaare traded.

3.Safeguards against currency risk

Currency hedging through foreign exchange transactions or operations on derivatives markets covers both the structure of the foreign availability that the firm has and the conduct of operations with foreign currency from a monetary standpoint. Thus, we have to cover spot by spot through spot by spot transactions and forward through forward transactions (forward, futures, options).

In times of monetary tension, due to the influence of a variety of factors, differences may occur between the prices recorded simultaneously from the same currency in different centers, which enables the development of arbitration operations.

Currency arbitrage operations are specific operations of the currency market. Currency arbitrage is the buying and selling, often simultaneous,of currency in foreign exchange markets, with the sole purpose of achieving a gain (Kiriţescu, 1978) from:

- the difference between the exchange rates of the same currency on two different markets;
- the difference between the exchange rates of the same currency on two different dates;
- the difference in exchange rate between two currencies and two different markets.

The purpose of these operations can also be:

- comercial – export earnings are denominated in a foreign currency and import payments in another currency;
- currency hedging -mitigating losses from the fluctuation in the exchange rate of the currency used in the contract;
- speculative – from the difference in exchange rate between the two currencies a gain is created.

Currency arbitrage is done by banks, stock exchanges and foreign exchange offices, but of all these, the predominant role lies with banks who also have a regulatory role in financial activities. Arbitration has several manifestations, the simplest being direct arbitration, which consists of the sale of a currency on the market that offers the best quotes and thesimultaneous purchasing of the same currency on the market with theweaker quote.

In international commercial contracts concluded up until 1971, the gold clausewas applied, through which the gold content of the coins from the time of the conclusion of the contract is specified. Also, to the extent that the gold contents changedin time, payment would be made according to the new exchange ratio that resulted from the change. Since the definition of goldparity values for coins was abandoned, the gold clause no longer applies to international commercial contracts (Kiriţescu, 1978).

Also in the realm of contractual measures we find the simple currency clausewhich constitutes a way of protecting against currency risks used in transactions in which the partners have an interest in two currencies (Kiriţescu, 2006).

The currency basket clause simply implies that the currency of the contract is not to be linked to a single currency, but a group of currencies (the currency basket). Refering to the multiple currencies' exchange rates,which make up the basket, compensates contradictory developments and reflectsthe real tendency of the evolution of exchange rates.

Using theweighted currency basket clause allows for a closer correlation required receipts and payments. This clause seeks to grant for each currency in the basket a certain weight.

The Clause of Special Drawing Rights(SDR), as a composite monetary unit, has become internationally used as a reference tool in certain transactions. This includes reporting the paymentcurrenciesof the international commercial contracts to SDRs and the recalculation of contractual rights and obligations according to the exchange rate at the maturity of the contract compared to the exchange rate at the date of conclusion of the contract. Fast and secure access to the SDR that is published daily by the IMF determines its use.

The price revision clause is included in international trade agreements to mitigate the effects of price changes in the period from the date of conclusion of the contract and up until the date of collection of the currency value of the goods contracted (Voinea, 2010).

Choosing the contract currency, the currency that is to be received or in which the payment will be made, plays a major role in the progress under optimal conditions of relations with other countries. In the last decade, there has been a polarization of commercial and financial transactions around an increasingly lower number of currencies, called major currencies. The structure of foreign currencies used in international financial flows is thus apparent, but also the modification of the structure of weights which comprises the composite currency SDR. The importance of selecting the contract currency, results from the fact that the role of importer is disadvantaged by payment in a currency that appreciates and the exporteris disadvantaged in the process of collecting payment in a currency that is depreciating. The importer's position will alwaysassume a weaker currency as payment and the exporter - a stronger currency as a receivable. But, as is natural, trading partners will assume a reverse position, corresponding to the situation in which they are in - the importer, or respectively the exporter.

Including an insurance margin in the price is another method (Negrus, 2006) practiced in the international market by many exporters. By using this method, the evolution of prices, inflation and exchange rate fluctuations are observed in their interdependence. This precautionary margin will be greater, when predictable risks are higher and when the moment of payment is more distant. The use of this technique forcurrency hedging is limited by two factors, the international price (the price on the international market for a product porposed to be sold with similar payment terms) and the domestic price of production (the difference between the domestic price for which the exported product is created and the international market price).

Including the insurance margin,within the pricemust be met other two optimal conditions: the price of the product has to remain competitive and the precautionary margin should be as high as possible. Both companies importing and exporting may limit foreign exchange risk bycompensatig payments and receipts in a determined currency, with the risk occurring only for the balance of operations carried out in the same currency or for a time interval that can not be synchronized between receipts and payments.

Using a different method, namely that ofanticipations and delays in payments and receipts, can be observed the fact that in international trade agreements, the delivery terms are fixed for certain periods (months, quarters), while the exchange rate of the currency payable or receivable may fluctuate. For exporters, this technique requires them to postpone the collection of money when the contract currency is apreciating and to hurry the receipt if the contract currency is in the process of depreciation.
(Figure 1)

In turn, the importers require the postponement of the payment when the contract currency depreciates and accelerate the payment when the contract currency is on an appreciation trend.
(Figure 2)

A lot of times, however, it is difficult to increase or reduce the volume of exports/imports in accordance with foreign exchange rate movements, but given the flexibility of this method, the system of delays andanticipations is commonly used by companies.

Currency hedging is the strategy that minimizes exposure to exchange rate fluctuations, thereby removing the uncertainty of foreign currency transactions and conferingstability to revenues/profits.A firm that decides to undertake hedging for its exposure to risk aims to minimize uncertainty but it does not aim at maximizing profits from currency speculation. A hedge position will not produce benefits from favorable exchange rate movements, but in return, it will not expose the company to potential losses caused by an adverse movement in the exchange rate.Hedging (Marin et al.,

1993) to cover exchange rate risk is aimed at countering the adverse effects of changing exchange rates of the currency used as payment.

The operation involves taking a position contrary to that which the operator holds in a previous transaction.Thus, an exporter that will receive an amount in a foreign currency as payment for his deliveries at a certain time will executea forward salewith the same maturityof the same amount of currency on the forex market. Conversely, an importer that will make a payment after a certain period of time will purchase the amount required through a forwardtransaction on the exchange market, with the maturity at the date of payment.Thus, each of the two operators (exporter and importer) ensure that at the date of payment, they will receive an amount that will be paid in a foreign currency whose value is known from the moment of completion of operations on the foreign exchange market and is no longer dependent the movement of the market.

The role of derivatives is to transfer risks in the forex market throughfutures contracts, to offer the possibility that an efficient management of securities portfolios is fezableand to generate profit opportunities through speculative operations.

At the origin of operations to reduce currency risk are different contractual instruments called derivatives. The most common derivatives are: forward contracts, currency swaps, futures transactions, currency options etc.

Forward contracts are used to hedge against exchange rate risk by concluding a sale–purchase contract of an amount of one currency for another amount in another currency at a specified date in the future.

To hedge against currency risk, most of the big banks offer the option of forward trading.

The forward foreign exchange contract is a flexible trading instrument, giving the customer the opportunity to set their own maturity, the amounts traded and the moment of entry into the forex market.

Forwardtrading on the forex market is possible through the provision of a credit line dedicated to this product,or through the establishment of a collateral deposit, meant to bear any losses arising from currency risk and which is made available to the customer at the time of settlement of theforward operation.

The exchange rate, as a price of forward exchange contracts may be determined based on interest parity principle, changing the spot rate with the difference between the interest rates of currencies that are the object of the contract.

Banking institutions provide agents that are carrying out operations in foreign currencies the posibility of locking the exchange rate for a certain period of time (one month, three, six months or even a year). Currency swaporiginates from the need of coverage of commitments in a currency without changing the structure of liabilities and reserves in the two currencies at the deadline.

A swap involves simultaneous operations without changes on spot and/or forward exchange rates, because any change would be a loss or a win for the bank, depending on the direction of the change. At the start of such an operation, there is a risk regarding the coverage gap between spot and forward transactions. The price that the bankoffers its clientshas safety margins which are rated wider to protect the bank. For the bank, a swap is a form of secured loan, with a relatively lower credit risk than lending to internal funds. Swaps aretransactions carried out at a specific date, which allow placement of foreign currency amounts in banknotes that are in excess, but can be made only in relation to the currencies of the most important quote both spot and forward. These operations require the bank to adopt a careful conduct in selecting clients. Ussualy are preferred the ones which show high liquidity, solvency and acceptable financial performance, while following that the bank establishes exposure limits for each customer.

Swaps options are options on *swap* currency contracts. These options give the holder the right to start at a certain time, a swap operation. If a company plans to obtain a five-year loan with variable interest rate after six months, variable interest which he or she wants to turn into a fixed rate through a swap, the company may acquire, by paying a premium, a swap option through which they will be bale to enter in a swap transaction, in six months, that will pay a fixed rate and receive a variable interest rate.

Swap options are an alternative to forward swaps contracts. A forward *swaps* does not involve the payment of a premium, but has the disadvantage that the user must enter the *swap*. By using a *swap* option, a company can benefit from any favorable developments in interest rates and can provide shelter from possible unfavorable events. The difference between a forward *swap* and a *swap* option is like that between a foreign currency forward contract and a currency option.

Another way to protect against currency risk are *futures contracts* which signify an agreement to buy or sell a specified amount of a currency at a set price at the time of conclusion of the contract, but with the execution of the transaction at a later date. This type of contract is different from forward contracts in that it is not traded on an exchange but instead negotiated between the parties.

Exchange rate fluctuations, in the present or future endanger company activities that are engaged in foreign trade, jeopardy which could easily be overcome by transferring risk in the *futures* market by providing a predetermined exchange rate, resulting in much lower costs than with a bank's forward contracts.

The better the futures price is correlated with the cash price, the more effective the hedging transaction is.

Futures contracts can be bought and sold at any time, but if there is a contract that contains an exchange rate in progressive deterioration, the contract holder may need to establish additional collateral at the futures - exchange, as a guarantee for delivering the funds at maturity.

An option is an agreement by which the seller (the writer of an option) grants the purchaser (the holder of the option) the right, but not the obligation, to carry out a currency transaction in certain conditions (valability, price). Currently, foreign currency options are available in most currencies from all the countries where a liquid *forward* currency market that is not restricted by exchange rules exists. There are two basic types of options: Call (buy) and put (sell). Call option gives the holder the right, but not the obligation, to buy one currency against another at a specified date and at a certain price, while put options give the right, but not the obligation, to sell a currency against another under the same conditions.

In the case of both call and put options, there are two distinct positions: the buyer (holding the long position) and the seller (holding the short position), the buyer is one who buys the additional right from the seller by paying a premium.

Conclusions

Even if hedging against currency risk shows many advantages in the specified context, they do not solve all the problems that an importing/exporting firm may face regarding foreign exchange. The technique of these operations, such as deadline coverage, is irrelevant in the case of commercial operations that stretch over more than one year, especially in the sale or purchase of machinery and equipment. But also, problems can sometimes occur on the spot currency market, which are difficult to overcome by spot coverage.

In addition to the methods above, the partners involved in international economic relations should conduct investigations on the situation of the debtor and on his or her ability to cope with the depreciation of their currency. Legally, certain suspensive clauses may be included to postpone the execution of the contract until certain requirements agreed to by both parties are fulfilled. At the same time, a clause on retroactive termination of the contract and restoring the parties to their previous situations can be included. We believe that in order to know and to master exchange risk observation techniques, it is necessary to keep a permanent contact with the international market dealers, with the latest methods and tools used, both theoretical and practical.

International insurance companies can take the currency risk of the importer if the risk is caused by a lack of financial liquidity on the borrower's side at maturity, due to its depreciation.

Considering the followings of the financial crisis, we believe that a call for methods of measurement and risk management becomes a sine qua non in financial decision making, all the more necessary for businesses for which the exchange rate, as a result of imports/exports, carries has a much larger impact.

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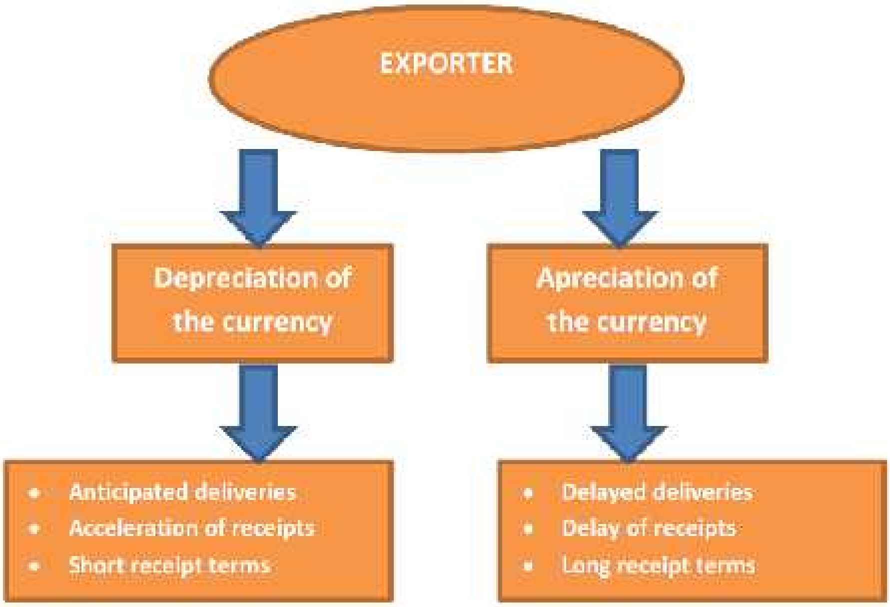

Figure no. 1: Choices of the exporter in case of appreciation and depreciation of the currency

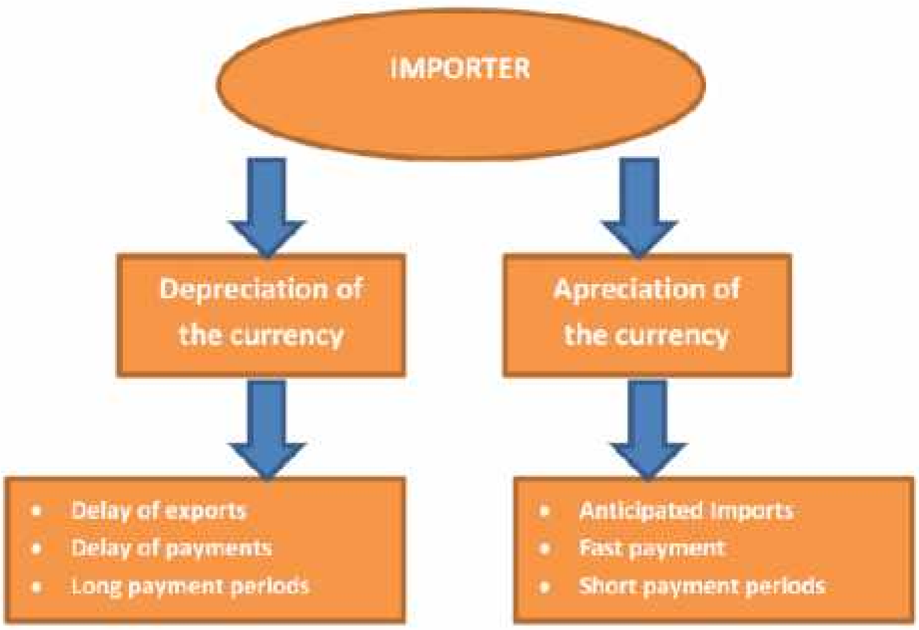

Figure no. 2: Choices of the importer in case of appreciation and depreciation of the currency