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THE USAGE OF FUTURES CONTRACTS AS A COLLATERAL FOR OPERATIONAL RISK ACTIVITIES

Summary

The paper focuses on currency risk and describes currently available tools, techniques, theory and methods of supporting the process of currency risk management. The first two chapters contain the theory of risks, in particular currency risk. The next chapter describes currently used solutions for managing the currency risk based on the literature.

Based on the literature, knowledge of solutions used by entrepreneurs and analyzed case studies it can be said that the inclusion of futures contract does not constitute a safe and appropriate tool and, in general, promoting futures contracts as a safe risk management tools is making – entrepreneurs lower their guard.

Key words: futures contracts, form of security, operational risk.

JEL codes: D02, O43, O47

Introduction

The currency risk management in organizations engaged in international trade is the key factor of operational risk security. In an era of increasing globalization changeability of exchange rates is crucial for every business organization. From the point of view of the capital owner it destabilizes its functioning and has significant importance for their financial results. The company is exposed to various fluctuations of currency exchange rates in relation to the parent currency. Lack of adequate hedge against exchange rate alterations, without carrying out earlier analyzes or projections, may lead to a significant reduction in the margin earned by the company or even cause financial loss. The changeability of exchange rate may cause the opposite effect. Nevertheless, the risk of financial loss as a result of exchange rate fluctuations requires taking actions that will allow to protect against the negative effects of this phenomenon. It often happens that protective measures restrict or even prevent the use of positive changes on the currency market.

A very popular tool used in the activities of hedge against changeability in exchange rates are futures contracts. It is widely considered as an alternative and relatively safe method (Wilimowscy 2001). It is required to note that there are rare situations when there is a diametric threat to the entrepreneurs who are using futures contracts because of the general opinion that they don't even predict negative abbreviations related to drawing of foreign exchange forward contract.

Operational risk management in the enterprise

Action process aimed at reducing costs and maximizing the benefits of risk is defined as risk management. In the direct approach to business it is a process designed to assure the continuity of the company and achieve its objectives by increasing the enterprise value by elimination of the negative and create positive consequences of the risk (Kaczmarek, 2010).

The key aspect of the risk analysis is the appropriate cycle management, which can be divided into the following stages (Jajuga 2008):

- 1) risk identification,
- 2) risk measurement,
- 3) risk control,
- 4) monitoring and risk control.

A concept, understood as a well-chosen strategy and a set of logical rules and principles, is important in the process of risk management. This general idea of overall risk management is called the Enterprise Risk Management (ERM). Precisely, it was defined by the Casualty Actuarial Society as "a discipline in which the organization from any industry assesses, controls, uses, finances and monitors risk from all sources in order to increase short-term and long-term value of the company to stakeholders" (Fabozzi 2009).

Risk management is a process that should define appropriate operating procedures. In order to ensure effective risk management, the company should (Tymoczko 2009):

- 1) Be aware of the exchange rate risk on the market where it is operating.
- 2) Have knowledge about the areas of risk, and what are the possible effects of the occurrence of this risk.
- 3) Identify the financial items that are exposed to the risk of changes in value due to exchange rate risk.
- 4) Determine the scope of the risk that the company is able to accept, usually it comes down to determining the possible loss limit.
- 5) Have knowledge of relevant foreign exchange risk management methods, and have the ability to their appropriate selection, in order to respect the limits of loss set earlier.

These are steps that will certainly require adequate knowledge and skills from the participants of the process. Compliance with these requirements and procedural approach to currency risk management strongly increases its efficiency. Documents allow constant monitoring and control of events in the process, and strongly facilitates the choice of the appropriate method to hedge against currency risk. The choice of technique requires careful analysis of risk factor. The following definitions are useful for this purpose (Tymoczko 2009):

- 1) Size of exposure.
- 2) The stability of the currency, after which the settlement occurs.
- 3) The period of risk exposure.
- 4) The ratio of open positions to the actual turnover (sensitivity setting changes all the turnover as a result of changes in the settlement of open positions).
- 5) Qualifications and knowledge management.
- 6) The ratio of managers to manage currency risk.

Foreign exchange risk management as a determinant of operational risk

The currency risk is one of the most significant kind of risk faced by companies in operation. It is the like hood of the deterioration in the financial situation of the company due to the unpredictable changes in exchange rates (Misztal 2009). Currency risk in the enterprise can be defined as “a current position or the position of deferred or anticipated future asset or liability denominated in a foreign currency, which due to commercial reasons or balance must be converted into another currency at an exchange rate that has not been yet determined” (Bennet, 2000). It includes :

- 1) balance sheet items denominated in foreign currencies,
- 2) actual, physical purchases and sales of goods and services that have not been invoiced,
- 3) purchase and sale transactions in the future periods,
- 4) bills and payments denominated in foreign currencies.

A common currency risk division is its classification with respect to the source of a given risk (Puszer 2010; Maniów 2003):

- 1) transaction exposure (short-term),
- 2) risk of conversion (conversion, balance sheet),
- 3) economic risk (long-term, strategic).

The most important type of exposure is transaction risk- as it is relatively short-term (for the period of time / contracts' timeliness). It arises immediately after the conclusion of agreements with foreign parties, it directly applies to companies operating on the international market. This transaction risk is a key aspect of currency risk management.

The company that is exposed to foreign exchange risk should act to reduce this risk in order to prevent the negative effects of exchange rate fluctuations. Hedging against currency risk can be based on multiple methods, and the choice should be based on the approach to the currency risk. The company can deal with currency risk with a passive or active attitude (Puszer 2010). The passive attitude means remaining passive to exchange fluctuations. Sometimes this attitude can be beneficial, but only when the decision was taken consciously, based on analyzes, or if the security costs could be higher than expected losses. The passive attitude should not be adopted as a result of lack of knowledge or ignorance, or worse, as a result of counting on luck. The company then assumes the position of a profiteer. On the other hand, the active approach is characterized by avoiding the risk and analyzing hedge positions capabilities exposed to foreign exchange risk and eventually taking measures to limit currency risk.

There are two strategies for this attitude. The first is a defensive strategy, which aims at preventing the formation of foreign exchange positions and securing such items that could not have been prevented. Another strategy is an offensive strategy, which aims at maximizing the profit from business operations. It is a speculative strategy, but resulting from a deliberate risk-taking by the unit.

The size of the exhibition consists of financial items denominated in other currencies. Currency stability is measured by changeability of time series for the exchange rate, and the study of possible political and macro-economic complexities associated with the analyzed currency. Duration of exposure to the risk affects the level of uncertainty about the future value of the currency rate. The larger the interval, the greater the uncertainty about the exchange rate. The analysis of factors should also include possible sensitivity to changes in turnover in relation to changes in foreign currency, to which items in the balance sheet are denominated. This helps assess the cost-effectiveness of the hedge. Sometimes the hedging costs may outweigh the potential losses, if currency fluctuations are small. Knowledge and skills have skyrocketing impact on the management, are the basis of appropriate analyzes, without properly selected human resources there is a danger that the whole process of identification and measurement will be carried out incorrectly and the source of the foreign currency risk will not be thwarted or , may even increase the impact on the company.

The internal methods of currency risk control

The internal methods are resolutions and all available sources the entity has at its disposal. In the other words, they are instruments available within

the company. This technique is also often called the natural hedging. There are a lot of internal methods of protection, those mainly used are below (Misztal 2009; Okoń, Matłoka, Kaszkowiak 2009)

- 1) The settlement of foreign payments in the local currency -It is a form of shifting the risk onto the transaction partner, which is often associated with granting some amenities to the party taking the risk. Valorization clauses – these are the clauses on changes in prices of goods that enable the parties of the agreement the proportional price change in relation to the change in the so-called multiplier value. There are the following types of currency clause:
 - a. Full clause- alternations of the exchange rate during the period until the payment deadline that entails a proportional change in the price or value of the contract.
 - b. Exchange rate clause – currency value of the contract is compared to the other “strong” currency on the day of the contract settlement. Whenever the relationship between the two currencies changes the contract value for the payment deadline changes proportionally. Basket of currencies Clause – the contract value is compared to a few selected currencies.
 - c. Clause Automatic with franchise – The contract value is changing only in a situation when changes in the exchange rate exceed a pre-defined percentage rate.
 - d. the price revision clause – the exporter has the right to change the export price due to a decrease in the exchange rate specified in the agreement in relation to a strong currency (currencies).
- 2) Acceleration or deceleration of payment (leading and lagging) – it is a method of manipulating the expected payments according to exchange rate movements. The table below shows the behavior of importers and exporters due to expected movements in exchange.

Table 1 Acceleration and deceleration of payments due to the nature of exchange rate changes

Specification	Currency appreciation	Currency depreciation
Importer (liabilities)	Delaying payments	Speeding up payments
Exporter (receivables)	Speeding up payments	Delaying payments

Source: own research.

This is an advantageous solution for capital groups of companies, as it coordinates operations and financial condition. For an external contractor this form is generally unfavorable (their actions often can be of the opposite) and can damage relations with business partners.

- 3) Netting – this is compensation of mutual liabilities and receivables denominated in the same currency. Compensation is possible only when the

company has both receivables and payables with a foreign business partner. It is mainly used in large corporations, holding companies that carry out transactions in different currencies. There are two types of netting:

- a. Bilateral (original) – offsetting of opposing open positions by usually two companies, if there is only one company it must have both receivables and payables of the same value denominated in a foreign currency.
 - b. Multilateral (secondary) – settlement done by the settlement center, compensating for open positions between the entities of the group. It is opposing and netting mutual receivables and liabilities denominated in several currencies.
- 4) Matching- Binding open positions of two or more different currencies in such a way that losses from adverse changes in one currency could be covered by profits arising from changes in the exchange rate in another currency. There are two types:
- a. By natural matching – binding receipts and payments denominated in the same currency.
 - b. Matching of the parallel – differs from the natural that it binds different currencies that are positively correlated.

External methods of protection against currency risk

External techniques involve risk transfer onto another entity that is able to bear the risk of exchange rate changeability for a fixed fee. The following types can be distinguished: traditional and innovative methods.

Traditional methods (Puszer 2010; Okoń et al. 2009) are described below.

Discounting bills are when an entrepreneur can receive receivables from foreign partners at the current exchange rate by presenting the bill to the bank, which is the basis for the payment of the nominal value of the contract less any interest and fees. Bank in such a situation becomes a holder of the promissory note (endorsee), waits for the bill's payment deadline and enforces the payment or re-discounts the bill. The discount can be of a single contract or the so-called discount rate, which is a permanent commitment of the bank to purchase promissory notes from the counterparty (Sierpińska 2008). This form of protection is good enough for a company to allow liquidity improvement, quicker cash rotation as well as reducing the need for traditional credit resources (Okoń et al., 2009).

- 1) Factoring- is a form of service involving the purchase of short-term trade accounts receivable by the factor before their payment deadline for a fixed amount in the form of a debt less the factor's commissions.

- 2) Financial hedging – is a method of closing open currency positions by taking the opposite position, but with the same parameters (size, date and currency); and for this purpose financial market instruments are used .
- 3) Deposit certificates with interest rate linked to the exchange rate – it is a type of financial hedging, whose purpose is the same that is the aim to close the open currency position; these certificates provide flexibility for entrepreneurs as they can use this instrument both for the primary and secondary markets.
- 4) Foreign exchange swaps.
- 5) Forward transactions.

The innovative methods are:

- 1) Futures contracts.
- 2) Currency options.

Currency swaps, forwards or futures, as well as currency options are classified as derivatives, which are the most important type of methods used to hedge the exchange rate, where the special role is played by futures contracts that are the core subject of this study.

Futures contracts

Derivatives are financial market's instruments whose value is based on the value of other assets (Samuelson, Nordhaus 2012). Initially, these were the contracts agreed upon between two parties where one person was obliged to deliver the goods specified in the contract at a pre-determined price. According to P.L. Bernstein the value of the derivative comes from the value of some other asset, which proves their effectiveness as a form of protection against price changes of the underlying asset. However, E. Weber says that it is not a suitable definition due to the fact that there is no underlying asset on weather derivatives, or derivatives of electricity. Hull is using a better definition- he defines derivatives as instruments whose value depends on almost every variable (Weber 2008). However, even this definition does not take into account the risk of bankruptcy or not meeting the obligations by one of the parties, which is why Swan puts it more precisely and, taking this particular risk into consideration, defines derivative contract as a promise whose value depends firstly on the "promising" entity's credibility and ability to perform the contract and secondly on the value of the underlying assets and other variables (Weber 2008). Despite the fact that the cited definitions relate to currency hedges, they point out that under specific conditions, they may put an entrepreneur at risk.

The functions of derivatives are as follows (Orzeł 2012):

- 1) The insurance – to hedge against an increase or decrease in the underlying instrument.

- 2) The speculation – speculation related to the increase or decrease in the value of the underlying instrument.
- 3) The profitable – derivatives allow to create a safe revenue structure.

The initial purpose of the derivatives usage was to decrease the risk of alterations in the price of underlying instrument. However, due to their characteristics they have also become the subject of speculation, as described by W. Buffet: derivatives are weapons of mass destruction (Bishop, 2009), which is reflected in the financial crisis started in 2008. The reason for it are the derivatives highly complicated by the level of complexity of the different underlying instruments, thus the calculation of the actual level of risk becomes unreliable.

Derivatives have a very long history, though not entirely clear, which stems from the fact that they were private contracts. According to D. Chance the forward contract was already encountered in the Bible, in Genesis chapter 29- Jacob bought an option that cost him seven years of work, and granted the right to marry Rach's daughter, Laban (Chance 2008). E. Weber stated otherwise – that the first contract of this type was concluded in Mesopotamia and written on a clay board. It was the agreement to supply 30 wood boards on a specified date in the future (Weber 2008). Futures, in turn, could have its origins in Japan in the seventeenth century and their purpose was to prevent high alterations in prices of rice (adverse weather and war) when the so-called rice trading by the books was established (Weber 2008).

Nowadays a futures contract is defined as a type of contract obliging two parties (buyer and seller) to conclude a transaction in the future under predetermined conditions (Weron 2009). Futures contracts are instruments of both the regulated market that is the stock exchange or OTC market, which means that they are subject to OTC turnover. The second case is much more popular due to the lack of standardization and strict rules, making this market instruments flexible and smooth, tailored to market needs. A futures contract should contain the following basic conditions (Whaley 2006):

- 1) Buyer of the contract – which is the so-called long position (long position).
- 2) Exhibitor of the contract – takes a short position (short position).
- 3) The price of the contract's execution – the asset value (per unit). Price depends on the underlying asset (the underlying) that is stocks, securities, currency exchange rates, raw materials, commodities, interest rates etc.
- 4) The number of units of a given asset that will be the subject of the transaction.
- 5) The date of the contract execution – specified time in the future when the actual transaction will take place.

The agreement for the futures contract is divided into (Maniów 2003):

- 1) Unconditional – becomes a liability and consists of:
 - a. Forward.

- b. Futures.
- c. Swap.
- 2) Conditional – gives the right to execute the contract, they are:
 - a. Options.
 - b. Option warrants.

Depending on how the contract is settled we can distinguish contracts with (Taylor 2010):

- 1) physical settlement – a commitment to provide the instrument for which the contract was concluded (the underlying asset);
- 2) cash settlement- no physical delivery of the instrument, they are settled by mutual closing of the difference between the cash price of the underlying instrument and the market price (spot price on the settlement date);

The contracts are concluded between two sides occupying opposite positions:

- 1) The buyer of the contract who takes a long position and commits to purchase an instrument on the date of the contract completion at a specified price ; when a futures contract is the protection buyer is secured against a decline in the value of the underlying asset; if the buyer is a speculator they enter into transactions relying on the possibility of increase in value of the underlying instrument;
- 2) Seller taking the short position and being committed to deliver the subject of the transaction within at specified deadline. The party issuing the contract generally expects a decrease in the value of the underlying instrument. However the seller hedging against an increase in the value of the underlying instrument in speculative terms expects the decrease in the value of the underlying instrument. When focusing on forward contracts it needs to be stated that they are non-standardized instruments, which means that the conditions and specifications of the contract are the responsibility of both parties involved in the transaction. For this reason forward contracts are traded over the counter market (OTC) and the participants are typically corporations, banks or financial institutions. Through lack of regulations imposed by the Boards of Accountancy forward contracts bring counterparty risk, that is the risk of non-compliance with the terms of the contract by one of the parties. A forward contract does not require incurring costs such as deposits, the trade takes place at the deadline set in the contract. The buyer may make a profit from the transaction, if the spot price (S_T) of the underlying instrument on the execution date proves to be higher than the settlement price (K) set at the time of signing the contract, or lose in the opposite situation (Hull 1998).

Futures are the same as forwards in terms of functionality and their very essence. This is an agreement to buy or sell a particular asset at a pre-specified price and at specified time (Hull 1998). In most futures the exchange

of assets does not occur, which stems from the fact that most investors close their positions before the expiry date of the contract, for which results in cash settlement (Hull 1998). The difference between futures and forwards is mainly institutional. Futures contracts are fully standardized and are traded on a stock market. This reduces the counterparty risk, which is guaranteed by the clearinghouse (in Poland, the National Depository for Securities). For futures, the system of daily settlement is in force and is called marking to market. At the end of the day it a daily clearance rate is accepted, which is typically the closing price of the contract and establishes commitments or liabilities of the parties involved in futures (Maniów 2003).

The size of the contract, as a transaction unit, which in the case of futures is predetermined. Futures contract price is determined on the basis of the principle of supply and demand on the market. During the session, they are reported offers to buy and sell, and on this basis the market price is determined (Jajuga, 2011). Prices of futures contracts are also subject to fluctuations limits. On the Polish market it is 5% compared to the last closing exchange rate for contracts on stocks and indices and 3% for foreign currency contracts (http://www.gpw.pl/czym_sa_kontrakty_terminowe).

There are two types of currency forwards (http://www.financetrainer.com/fileadmin/inhalte/TOOLS_SKRIPTEN/0102_forwarde.pdf):

- 1) Outright forward – physical delivery takes place between the two currencies usually at the end of the contract. At the moment, such transactions have become a common tool for businesses, hence they are available at most banks and contractual conditions due to the competitive position continuing to improve. For example, some banks allow to modify the settlement date during the contract, sometimes banks require a small margin.
- 2) Non-deliverable forward – there is no physical exchange of currency, but the net settlement (cash settlement), usually two days before the date of expiry of the contract where the price should be fixed currency and pay the difference between the initial spot at $t = 0$ and a spot at $t = T-2$. In this type of transaction the initial expense may often be a margin. It is often used in the so-called emerging markets at a time when foreign corporations or companies cannot trade in local currency on the spot market or futures.

The contract value (f_T) on its expiry (maturity) depends on the spot (S_T) of the underlying cash market and the clearing price (K) (Hull, 1998):

The buyer of the contract – a long position

$$f_T = S_T - K \quad (1)$$

The seller of contract – short position

$$f_T = K - S_T \quad (2)$$

For $f_T > 0$ there is profit from the transaction. Forward price turned out to be better than the price set on the spot market.

For $f_T < 0$ the contract is not profitable and brings loss because the price set on the spot market proved to be more favourable than the price of the contract execution. At the same time, it can be determined whether the forward contract is sold at a premium or discount, for which the following formula is used (Gough, 2011):

$$f_T = (F - S) / S * 100 \quad (3)$$

For $f_T > 0$ contract sold at a premium.

For $f_T < 0$ contract sold at a discount.

Valuation of forward contract

Due to the fact that at the time $t = 0$, which means that at the time of signing the contract its value is 0, the evaluation of forward contract comes down to finding the right price of contract settlement (F), and thus its value at the time of its expiry. The primary way of evaluating the forward is to construct a pricing strategy for arbitration, then implement the formula into the contract. Assuming the price of the underlying S at time $t = 0$ and interest rate risk-free, the time until the T contract expiration, the price of T forward contract and continuous capitalization, the basic contract price is given by (Hull 1998):

$$F = S_0 e^{rT} \quad (4)$$

This formula does not take the cost of supply into account, neither does it additional revenues related to the rights to the underlying instrument (if these are securities the revenue may be coupon or dividend payments). For a known amount of the additional fixed revenue (Hull 1998):

$$F = (S_0 - I) e^{rT} \quad (5)$$

Where I is represented as the current value (PV) of all future income. For the well-known dividend yield (continuous capitalization) the contract is valued at (Hull 1998):

$$F = (S_0) e^{(r-q)T} \quad (6)$$

Where q is the dividend rate is payable on a continuous basis. For the foreign exchange forward foreign currency can be considered as a kind of security, paying dividend rate (Pelletier 2006) in the form of risk-free rate of the specific country:

For continuous capitalization:

$$F = (S_0) e^{(r - r_f)T} \quad (7)$$

For the discrete capitalization:

$$F = S_0 * (1 + r) (1 + r_f) \quad (8)$$

Where r_f is the risk-free rate in the country of foreign currency.

This equation uses economic dependence called parity interest rates, so the assumption is that the real interest rate on an international scale is identical. Premium or discount on the futures market is very dependent on the difference between the interest rates of the countries in order to align the rate of return on investment, and thus prevent arbitrage opportunities. Therefore, in a situation when the underlying currency of the country offers a lower interest rate compared to any other country the forward exchange rate will include premium related to the country with higher interest rates. The ratio of interest rates in both countries should be proportional to the relationship between forward rate and the spot rate (Maniów 2003).

It should be emphasized that in fact forward foreign exchange contracts are granted by banks and should therefore be divided into two rates, the settlement of the forward contract reported by dealers which is the Bid, i.e. the purchase of the contract and Ask, the sale of the contract. Both prices vary widely. They are presented the spread. This is the price for the opportunity to make immediate forward transactions and for the risk taken by the dealer (Whaley 2006).

The negative effects of futures contracts – situational analysis

Approximate dependency shows how the settlement of a forward contract takes place. It also shows the profit or loss of each party, in relation to the spot price and the settlement price. However, from the point of view of the exporter or importer, if the indicated settlement makes more sense. If an entrepreneur, despite speculative commercial operations, is deciding to conclude a forward contract has their mind set on the hedge against the negative, from his point of view, change in exchange rates. As a result, a loss calculated in accordance with the set patterns will not be previewed in such terms. A real loss for the exporter, for example, would be an exchange of revenues in foreign currency at the exchange rate below the minimum acceptable level. The settlement of a futures contract at or above the minimum level assumed by the exporter guarantees to him avoiding real losses, which for him could mean selling products below the cost of production.

Therefore, is the conclusion of foreign exchange forward contract a safe tool for entrepreneurs currency hedging?

Does promoting a futures contract as a safe risk management tool give business a false sense of security?

The essence of this paper is to attempt to answer these questions, which from the point of view of operational risk management is extremely important. The authors believe that not only hypothetically but also in reality there are situations in which the conclusion of foreign exchange forward contract can be dangerous for the entrepreneur, even if maturity and exposure denominations match properly. However, a broader look at these issues as well as on the business risk is necessary.

The study analyzed several situational cases for entrepreneurs, indicating the negative consequences of the conclusion of the foreign exchange forward contract:

Example 1: The negative assessment of the futures contract exceeding bank's acceptable overdraft or required security deposit

Exporter secures EUR exchange rate at 3.8 PLN per unit (spot rate). Let's assume that the transaction resulting from an agreement signed with a foreign counterparty will take place after 3 quarters and will amount to 1 million euro. Exporter asks the financial institution to conclude a foreign exchange forward contract. The required security deposit paid by the exporter or tax limit set for this client is 30 thousand euro (3%).

Referring to the historical development of EUR / PLN exchange rate it should be noted that in November 2008 the spot rate was about 3.8, and within nine months changed to around 4.1. Seemingly this situation, although slightly unfavorable to the exporter, should not cause him any major problems.

Unfortunately, nothing could be more wrong. In March 2009, EUR/PLN rate exceeded 4.6. The negative assessment of the forward contract was concluded at the level of 800k PLN, which was well above the tax limit designated to the exporter or security deposit he initially. Despite the fact that the exporter is sure that they will meet the obligations arising from the contract and it is almost certain that they will deliver 1 million euro on time and exchange the amount at the fixed rate of 3.8 (of course, in reality, increased by the forward points (Swaps), which was omitted in the example), the financial institution does not necessarily share the exporter's point of view and will usually stick to arbitrarily set conditions of the contract.

In such a situation the exporter is called to provide additional security for the contract, usually by a margin call or establishing an additional security deposit. Of course, the problem occurs when a trader is unable to meet the expectations of the financial institution. In an extreme case, the bank may make the settlement of transactions at an exchange rate unfavorable for the entrepreneur. Certainly, the financial institution will not allow the occurrence of a significant negative evaluation of the contract, but in a situation of good financial standing the tax limit established for the businessman may be relatively high, which is extremely dis-advantageous for them .

In this analyzed example, the forward settlement in the absence of additional security measures from the entrepreneur would take place at about 40-50k EUR. In case of significant fluctuations and rapid weakening of PLN, and simultaneous financial institution's expectation (eg. Waiting for extra security, which, however, is not fixed) the unfavorable settlement for the entrepreneur can happen at a much higher level. As a result, the entrepreneur is forced to pay the equivalent of the contract total negative settlement to a financial institution (with the tax limit), or the difference in relation to the pre-paid initial deposit. In addition, as a result of the forced closure of foreign exchange forward contract, the trader is exposed to currency risk related to the settlement of the export transaction at the spot rate, having no reference in this respect.

Example 2: Problems with foreign parties

Conclusion of foreign exchange forward contract carries the contract risk. Non-payment by the counterparty or withdrawal from the contract as well as the refusal to accept the goods, the introduction of sanctions preventing delivery, results in the exporter not receiving expected payments within a specified period of time.

Unfortunately once concluded a futures contract operates independently from the actual exchange of goods and payment. As a result, the trader is liable to settle the futures contract at the spot rate on its maturity date. Of course, the settlement will not necessarily be negative, the entrepreneur may be able to settle the contract at a favourable exchange rate, however, they are exposed to a significant risk here.

The above situation apparently does not describe a risk related to foreign exchange forward contract but presents an example of contractual risk. Nothing can be more wrong. In these specific circumstances, both types of risk overlap and it is not important that the risk of foreign exchange forward contract is a result of the contractual risk. There is no doubt that any real loss on the side of entrepreneurs will be associated with the concluded futures contract.

Assuming that the futures contract will be settled at the rate of 4.1 (assuming the assumptions of the previous example) exporter suffers a loss of 300k PLN.

The calculated loss would not be a result of the occurrence of contractual risk, it will be of course its derivative, but the loss related to the contractual risk will be for example the amount of lost receivables that is the unpaid part of the price by a foreign contractor.

Example 3: unfavorable price in relation to the competition

In the period between 2008 and the year 2009, as indicated in Example 1, EUR/PLN exchange rate fluctuations exceeded 30%, which in business trading is an important factor in shaping relations in the commodity exchange market. In case of an entrepreneur who secured the exchange rate EUR / PLN rate of e.g. 3.8, it becomes uncompetitive in relation to an exporter who has not secured their currency exposure in case of a significant weakening of PLN. As a result, the foreign market competitor may begin to offer products at a price much lower than our analyzed exporter, which e.g. could lead to:

- Breaking the agreement by the recipient,
- Not signing a contract for successive periods, as it may be signed with our competitor, which may mean eliminating from the market.

Conclusions

Futures contracts are based on financial leverage mechanism, which results in the multiplication of financial results, while strongly increasing the risk of losses. With the lever contractor may enter into transactions with a nominal value far exceeds the value of the contributed capital (margin), at the same time it should be noted that minimal change to the underlying instrument can cause far greater fluctuations in the value of the contract proportional to the size of leverage. Analysis of selected case studies allows you to draw a thesis:

Conclusion of foreign exchange forward contract is not a good safety tool against currency risk for an entrepreneur, and generally promoting the futures contract as a safe risk management tools gives entrepreneurs a false sense of security.

These examples clearly show that one cannot uncritically accept statements that the foreign exchange forward contract is safe for the entrepreneur. Case study occurred in situational descriptions leads to a reflection on the impact of the conclusion of the contract and how to implement the risk of the instrument. And you can treat them as a contribution to further discussion and a basis for further research.

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Wykorzystanie kontraktu futures jako forma zabezpieczenia operacyjnych działalności związanych z ryzykiem

Streszczenie

W pracy skupiono się na ryzyku związanym z walutami i opisano obecnie dostępne narzędzia, techniki, teorie i metody wspierania procesu zarządzania ryzykiem walutowym. Pierwsze dwa rozdziały poświęćto teoriom ryzyka, szczególnie ryzyka walutowego. W trzecim rozdziale opisano wykorzystywane współcześnie rozwiązania zarządzania ryzykiem walutowym na podstawie dostępnej literatury.

Opierając się na literaturze, wiedzy na temat rozwiązań stosowanych przez przedsiębiorców oraz analizach poszczególnych przypadków, stwierdzono, że stosowanie kontraktów futures nie jest odpowiednim narzędziem, a promowanie kontraktów tego typu jako narzędzia zarządzania ryzykiem usypia czujność przedsiębiorców.

Słowa kluczowe: kontrakty futures, forma bezpieczeństwa, ryzyko operacyjne.

Kody JEL: D02, O43, O47

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