# Hedging Foreign Exchange Risk in SME in the Czech Republic

Eva Hrubošová, Blanka Kameníková, Jiří Strouhal, Carmen Bonaci, and Crina Filip

***Abstract*—** The paper is focused on hedging foreign exchange risk, mostly in small and middle enterprises. Many companies are facing the problem of foreign exchange risk under the exigent circumstances of current financial crisis. The paper also provides analysis of current situation within Small and Middle Enterprises (SMEs) in the Czech Republic whether they are using financial derivates for hedging foreign exchange risk or not, and which ones. As a demonstration of one good hedging possibility, there is an example of real company and its data before and after using barrier options as the hedging instrument. The questioner survey was processed by basic statistical methods. This research outlines the issue of hedging, which could be either financially unattainable or much too difficult for many SMEs in the Czech Republic. The trend of CZK/EUR in 2012 gives opportunity for using financial derivates such as forwards, currency options and swaps to protect assets and liabilities against higher exchange rate volatility.

***Keywords*—**barrier option, foreign exchange, hedging, SME risk management

## I. Introduction

ONE of the most important activities within the company is a decision making process focused on risk management. Under the assumption that each economic entity is exposed to a certain level of risk, optimization of risk should lead to activities bringing economical benefits.

Each company faces some kind of market risk which also includes currency risk, respectively foreign exchange risk. For economical subjects trading with foreign business partners can bear such risk - caused by exchange rate difference – significant impact on their profitability.

Currency risk management leads to cash flow stabilization, and thereby to reduced scattering of possible income within the company.

The paper is aimed through the survey at verifying the extent of using financial instruments for securing the foreign exchange risk.

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## II. Problem Formulation

Based on the critical literature review was formulated the problem of hedging not only in the CR, but worldwide. Our aim was only mapping the Czech business field. By composing the questionnaire, there were determined two basic hypotheses: H1 = SME is not using any hedging tools against currency risk, H2 = futures are the least used tools of all financial derivates. The hypotheses for the research were corresponding with findings of previous researches in this field. The important question was whether have SMEs changed their hedging behavior during and after the financial crisis or not and how [22]. Several questions were asked about the main traded currency and who does the hedging operation for the company – if they had a professional within the company or shifted the responsibility to a bank.

The main objective of this research was to determine whether small and medium-sized enterprises use financial instruments, what kind and how often. Last but not least, why some enterprises do not use the hedging instruments for their risk management.

The questioner survey was processed by basic statistical methods.

## III. The Process of Foreign Exchange Risk Management

[3] use the term risk for uncertain expectation, which indicates a real risk of loss for one party. When analyzing primary exchange risk, it is necessary to fragmentize it and moreover know its structure and development for successful management process.

[24] refers to country risk as territorial risk expressing systematic risk exposure in a certain country. In assessing country risk are most often used external rating agencies Moody's, Standard & Poors and Fitch, which cover almost all countries in the world. [2] lines up currency (foreign exchange) risk essentially to market risk and characterizes it as a risk of loss of market price changes. According to [18], foreign exchange risk management is a process of active and efficient formation of its own position relative to foreign assets, liabilities and future cash flow of the subject.

According to [15], is the value of exchange rate is set by interference of supply and demand for currencies in the international foreign exchange market and expresses the foreign currency price in units of domestic currency. The structure of foreign exchange rate is shown in Fig. 1, where the curve S stands for supply of Czech crowns on the exchange market and the curve D represents the demand for Czech

crowns. The exchange rate is determined by the place of collision of these two curves – point E. If the demand curve D moves down, it means weakening of demand for Czech crowns and therefore depreciation, in the opposite case appreciation of the currency.

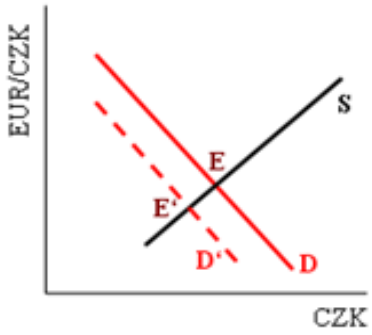


Fig. 1: Exchange rate EUR/CZK, Source: [20]

Every participant of an international financial transaction must make allowance for the fact that the foreign exchange rate of the contract is constantly changing in the world's foreign exchange market. It is different in the moment of calculation of the contract, signing the business contract, billing, and at the time of real payment of obligations. The currency carry trade, which exploits this phenomenon by holding high-rate currencies and shorting low-rate currencies, was extremely profitable in and beyond the period until 2008 [5, 6, 23].

The risk management process consists of analysis, selection of counteraction, impact analysis and counteraction implementation. The basic objective of foreign exchange risk management is to reduce the adverse consequences of the risk or their complete elimination. It is important to add the stabilisation of the future cash flow value in foreign currency to the level that is currently known [21].

## IV. Methods of Risk Management

Effective foreign exchange risk management is necessary for both large companies and small export & import companies. These foreign exchange bodies must decide, because of the existence of open foreign positions, for certain strategy regarding their risk management.

The basic methods of risk management are risk retention, risk reduction, insurance and risk avoidance. In case of insignificant risk, a company most often uses retention or reduction. The risk retention means that a company speculating on the CZK exchange rate against foreign currency does not change significantly, or that it even weakens against (the company has receivable in foreign currency), or contrary revaluate (the company has liability in foreign currency).

Retention is suitable for companies having set sufficiently high margin, which does not change in variance of single percent rank. Risk reduction in the form of hedging is chosen by companies with relatively low margin and higher frequency of foreign trade.

To effective foreign exchange risk management companies could choose the strategic proceeding which according to [11] is divided to conservative and aggressive. By conservative approach the company ensures the currency position so the changes of exchange rate do not lead to changes in cash flow value. A foreign entity is able to set independently on the exchange rate volatility, the present value of receivables. An aggressive management approach might be formed to active management of currency position. The company makes a conscious decision for partial or total closing of foreign exchange position and waits for convenient foreign rate change [25].

## V. Foreign Exchange Risk Management Tools

The most commonly used tool to ensure the exchange rate risk is a forward contract. It turns out that forward by [10] offers a better solution than leaving open positions at the spot rate. The most effective way of managing financial risks are considered derivatives. As stated by [19], one of the most striking phenomena in the financial sector in recent years is the explosive growth of markets, in order to deal with the so-called financial derivatives.

A derivate is basically a futures contract. Closing time of the contract is not identical with the time of its execution, when the delivery of the underlying asset occurs. [17] found the underlying asset was the financial instrument, than we would speak about financial derivative. Basic types of derivatives are shown in the following Figure 2.

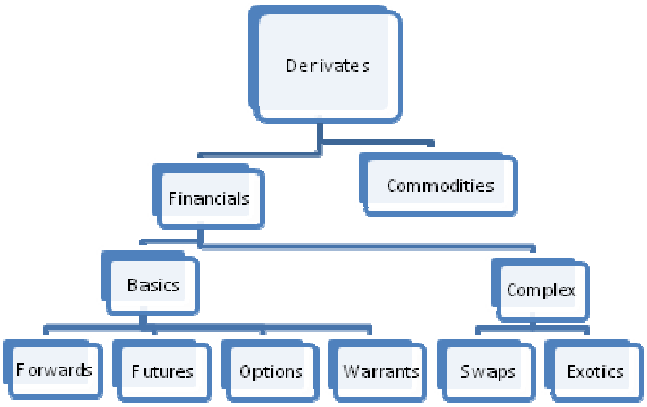


Fig. 2: Basic types of derivates, Source: [13]

The most often used instrument of foreign exchange hedging is a forward contract. Forward exchange operation is carried out in the forward exchange rate, representing different levels of basic interest rates at the same time for both currencies in the contract [14]. The difference in interest rates should enticed foreign currency into the economy targeting into appreciation. The forward rate is based on technical factors and volatility of the spot rate and can be calculated according to [16] as follows:

$$FR = SR + premium \quad (1)$$

$$FR = SR - discount \quad (2)$$

$$\frac{premium}{discount} = SR \times interest\ differential \times \frac{days}{360 \times 100} \quad (3)$$

In the Czech environment, we also can find also some modification of currency forward, e.g., forward with variable maturity and average rate forward.

## VI. Foreign Exchange Risk Management within Czech SMEs

The Czech economy can be counted among the most open economies in the world. The Czech crown is a convertible currency and domestic and foreign entities have the option to acquire foreign and domestic currency without obstacles. The foreign exchange market began to develop in 1991 in connection with the implementation of internal convertibility of the Czech crown [4]. External convertibility was then implemented in 1995 and was accompanied by significant extension of oscillation bands for exchange rate volatility to 7.5%. In 1997 the country left the fixed exchange rate system and released the oscillation bands of the Czech crown. It transformed to the managed floating with the orientation of the Czech crown to the German mark.

The Czech National Bank carries out a survey of daily turnover four times a year, for its own needs and for international financial institutions such as the European Central Bank and the Bank for International Settlements. The biggest portion is made up of swap and forward transactions, to a lesser extent option trades are represented. In the recent years the volume of spot trades has been rising.

## VII. Exchange Rate CZK/EUR Trend

The most traded currency pair within Czech entities is CZK/EUR. The Czech crown depreciated last year against most currencies. The year 2011 began by a rapid appreciation of the exchange rate when the crown came from the January level of 25.1 CZK/EUR during one month to 24.0 CZK/EUR.

This increase was soon stopped and after several months' high volatility ranging from 24.2 to 24.6 of the Czech crown weakened in the last four months against the euro by 7%. The weakening was substantially influenced by the expected economic recession in Europe, but also by distrust of investors after news of cuts in the projects' funding in Central and Eastern Europe.

In such situation the Czech crown started on the value of 24.1 CZK/EUR in August, but after almost continuous fall reached the limit of 26.0 CZK/EUR in November. Subsequently, there came the slight appreciation, which could also be only a trend correction only, but at the end of the year held the course due to the uncertainty the level around 25.5 CZK/EUR. The whole trend is shown the Fig. 3 below.

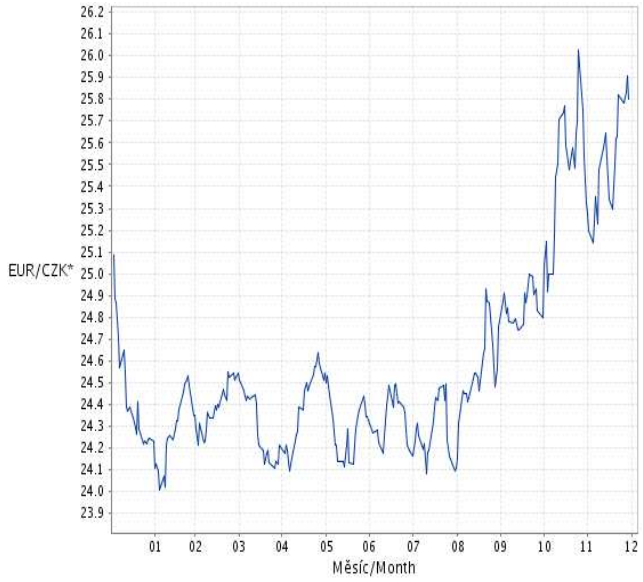


Fig. 3: Foreign exchange rate CZK/EUR in 2011, Source: [8]

According to the CNB forecast should be the average rate of 24.90 CZK/EUR for this year. The prediction with confidence interval is in Fig. 4. Long-term outlook remains unchanged due to expected improved structural health of the CR, lower debt and trouble-free banking sector. The Czech crown is expected to strengthen slowly in long-term horizon with the rate around 2% per year and by the end of 2013 would be closer to the exchange rate 23.0 CZK/EUR.

This can have two reasonable explanations. The first explanation shows the weaknesses of the Eurozone and its crisis, leading to bigger and more serious problems solved only by quantitative easing which has only a temporary effect. The second would be more optimistic for the CR by meaning of stronger growth of real national product.

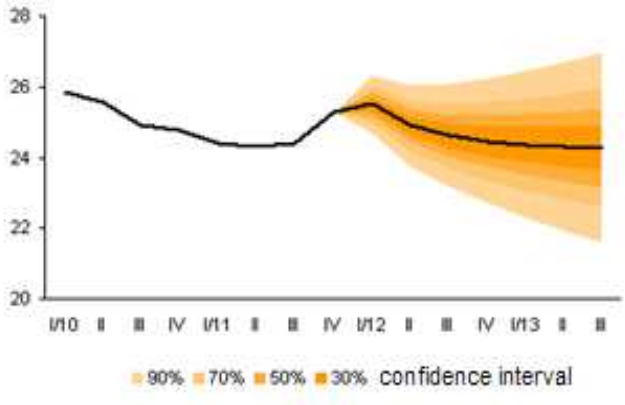


Fig. 4: Prognosis of exchange rate CZK/EUR for 2012, Source: [8, 9]

## VIII. Developing the Analysis and Interpreting the Results

Our analysis is based on responses being obtained from a total of 231 companies. The questionnaire was distributed to

350 Czech companies and it was returned by 231. The majority of answers were from enterprises having sales within the scale 1 – 50 mil CZK (40%) and other 36% include companies with sales among 50 - 500 mil CZK, which leads to the fact that respondents could be counted to the SMEs. A questionnaire based survey was conducted in order to obtain the necessary information. The questionnaires were distributed in printed and electronic form. Respondents were asked to characterize their currency risk management tools. The second part contained questions for those enterprises which do not use any derivate-based hedging form.

The key findings correspond with our hypothesis, that more than half of the researched companies do not use Forex (hereinafter FX) hedging tools and let their foreign trades unsecured. The interpretation of the follow-up findings covers several aspects. SMEs do not have a special department for risk management and currency operations. There is also the lack of professionals, who could judge the market situation and make a decision of derivate hedging as shown in Fig. 5. Using the bank service advisor or private consultant could be expensive and Czech companies also find such advices in the context with financial crisis untrustworthy.

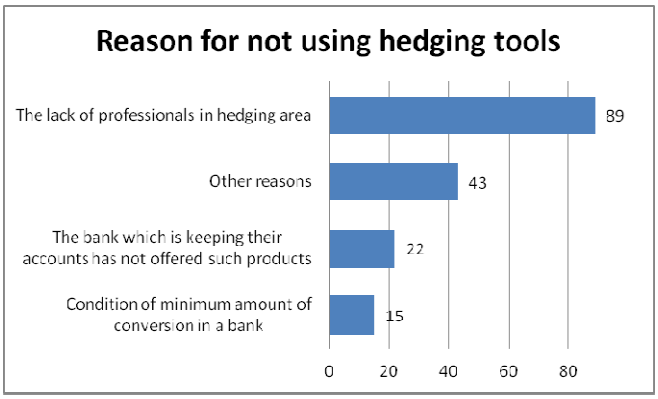


Fig. 5 Why SMEs do not use hedging, Source: authors' projection

Some of the commercial banks operating in the Czech Republic request a minimum conversion amount, which is for many SMEs unacceptable. Their sales can't meet those requirements so financial derivates appear unavailable. A convenient product could be offered by a competitive bank, but it usually asks also for shifting accounts to them, which could cause more costs than effects. Czech enterprises are also conservative and do not want to change the bank or switch their accounts anywhere.

On the other hand, those SMEs, who practice hedging on everyday base, choose only proved products such as forward and spot contracts, which is obvious from Fig. 6. Even if there existed the whole range of other financial derivates, managers probably would not trust them or would not feel comfortable using them.

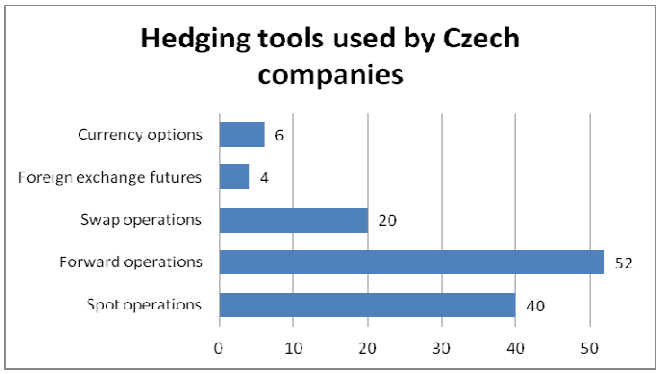


Fig. 6 Types of contracts used by Czech SMEs Source: authors' projection

Surprisingly we have discovered that entrepreneurs who are hedging FX risk use hardly ever any analyses. Neither fundamental nor technical even macro economical. The explanation can be the fact that almost all these contracts are done by bankers, who have some analyses available, so the entrepreneurs do not have to do it for themselves.

## IX. Case Study

A limited company with a registered capital of 40 million is engaged in purchase of goods for resale. In fact it is the purchase and sale of application equipment for the industrial sector. The company trades with customers throughout the Czech Republic and also with foreign customers, it is export-oriented and 95% of trades are directed into EU countries.

**Analysis of foreign exchange position**

All products are purchased from the parent company based in Western Europe. In case of the situation, that the parent company is not able to meet the demand, there is a transfer of goods from affiliated companies. The purchases in EUR account for 95%, only 4% are realized in CZK. Thanks to the location, the majority of sales come from Slovakia. Other partner countries include Hungary, Poland, and occasionally Germany. In 2011 the company traded only one foreign exchange – EUR. Such a position was not balanced well and led to a foreign exchange risk. The incomes and expenditures chart in EUR is displayed on Fig. 7.

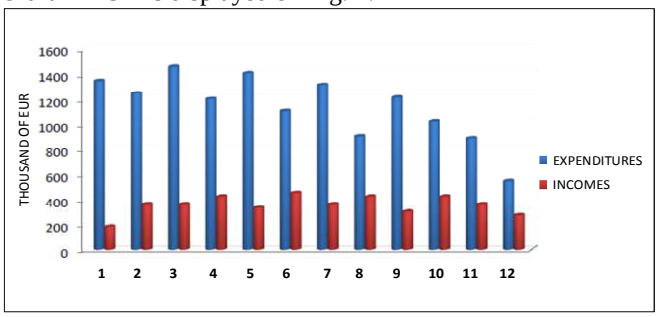


Fig. 7 Incomes and expenditures in EUR in 2011

The company was in short position, total expenditures 13 mil EUR exceed revenues four times, when their total was

4.5mil EUR. It is dedicating the import oriented company. The development of revenues and expenditures does not go along contemporaneously. Revenues are constant all the time, on the other hand expenditures have decreasing character. The company is threatened by foreign exchange risk, but it is neither considered nor managed.

**Prediction of future development CZK/EUR**

Czech crown depreciated against most currencies in 2011. The beginning of the year 2011 started with fast depreciation of exchange rate with its high at 25.1 CZK/EUR and during one month appreciated to 24.0 CZK/EUR. There was slight volatility with a range between 24.2-24.6 CZK/EUR for several months and at the end of the year depreciated again. In November reached the extreme highest high at 26.0 CZK/EUR. The chart is viewed on Fig. 3.

National bank prognosis for the year 2012 counted average course 24.9 CZK/EUR and the outlook for this year and also next year expects 2% appreciation in each year. Czech economy should face slighter recession than other EU countries, because of lower debt and non-problematic bank sector.

***Hedging the foreign exchange risk of the company***

Due to free floating CZK course had the company exchange rate profits and also losses. Losses were dominant in frequency, when they appeared in 7 months out of 12, but profits were higher in cash amount and the difference was plus 250 000 CZK. There exists many possibilities of hedging the exchange rate for the company, but not all of them meet the requirements.

The volume for hedging is depended on buying EUR in short position. The company plans its receivables and payables in EUR week after week considering the maturity of assets and liabilities. Fig. 8 shows receivables, payables and cash flow in EUR, which were planned for 10th – 19th week. The volume of short position is obvious from the chart, weeks are numbered in columns.

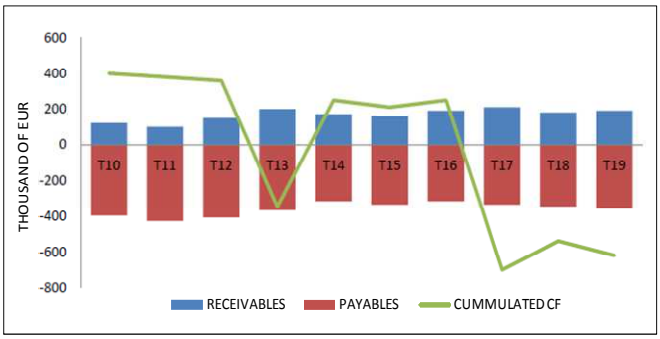


Fig. 8 Receivables, payables and cash flow in EUR in weeks 10 – 19 of 2011

The company begun 10th week with 400 000 EUR on the bank account. Such amount should have been sufficient for the next three weeks, despite the company expected several EUR payments.

In week No. 13 was expected liability payment 750 000 EUR on behalf of the account of the parent company. More than half of the amount was covered from the available cash, and rest 350 000 EUR was the company ready to exchange. Other cash was about to be credited from receivables 200 000 EUR, which would turn the cash flow to blacks again. The company had to pay liabilities to the parent company in amount of 1mil EUR in the 17th week, which was partly covered from cumulated cash flow, but the company was in short position with 750 000 EUR. The development of receivables, payables and cash flow after hedging shows fig. 9

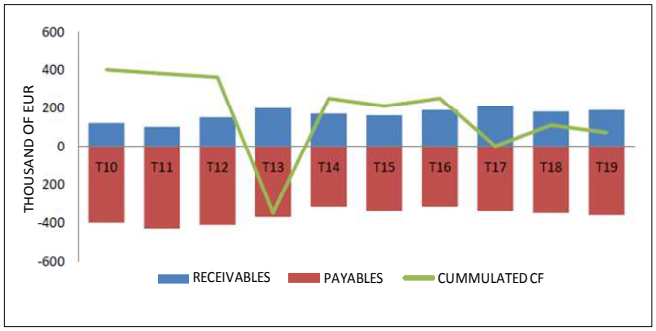


Fig. 9 Receivables, payables and cash flow after hedging

**Hedging strategy**

The choice of strategy is always depended on predicted development of foreign exchange CZK/EUR. For reference period is expected currency appreciation, which has a positive influence on the importing company, but at the same time the company prefers conservative strategies. Therefore it is appropriate to close open position.

The company chose for hedging knock-in barrier option and compared that product with cooperating banks. For hedging were set specific conditions:

- volume: buy 750 000 EUR,
- writing date: 30. 3. 2012,
- maturity date: 23. 4. 2012,
- spot rate 30. 3. 2012 is 24.750 CZK/EUR.

**Currency option with knock-in barrier**

There are four basic forms of barrier options (path-dependent) – dow-and-out, down-and-in, up-and-out and up-and-in. The right to exercise either appears (in) or disappears (out). The barrier is set above (up) or below (down) the asset price at the time the option is issued. A knock-in option is an inactive simple option that automatically becomes live if spot price trades at or beyond a defined barrier (established out of

the money in relation to spot) before expiry. The closer the knock-in level is to the spot, the more expensive it is as the probability that the barrier trades, and thus creating a simple style option, is increased. Because of the European option, crossing a barrier is relevant only on the expiration day.

Contract conditions:

- writing date: 30. 3. 2012,
- expiration date: 19. 4. 2012 (Bank X),
- maturity date: 23. 4. 2012.

The system of barrier option is similar to plain vanilla option. The banker from Bank X set the strike price at 24.756 CZK/EUR, and Bank Y at 24.800 CZK/EUR.

Table 1 Rates for barrier options in Bank X and Bank Y

| Institution | Strike price | Knock-In barrier | Premium |
|---|---|---|---|
| Bank X | 24.756 CZK/EUR | 25.000 CZK | 147 345 CZK |
| Bank Y | 24.800 CZK/EUR | 25.000 CZK | 96 898 CZK |

In order to compare, it is necessary to dissolve option premium to exchange rate and find out the effective exchange rate.

The procedure for counting effective rate (in Bank X):

**Strike price 24.756 CZK/EUR and premium 47 345 CZK**

- 750 000 EUR x 24.756 CZK/EUR = 18 567 000 CZK
  18 567 000 CZK + 147 345 CZK = 18 714 345 CZK
- 147 345 CZK/750 000 EUR = 0,196 CZK/EUR
  0.196 CZK/EUR + 24.756 CZK/EUR = 24.952 CZK/EUR

Table 2 Effective rates and prices of knock-in barrier currency options in Bank X and Bank Y

| Effective rate of barrier currency option | | | |
|---|---|---|---|
| **Institution** | **Strike price** | **Premium** | **Effective rate** |
| Bank X | 24.756 CZK/EUR | 0.196 CZK/EUR | 24.952 CZK/EUR |
| Bank Y | 24.800 CZK/EUR | 0.129 CZK/EUR | 24.929 CZK/EUR |
| **Effective price of barrier currency option** | | | |
| **Institution** | **Strike price** | **Premium** | **Effective price** |
| Bank X | 18 567 000 CZK | 147 345 CZK | 18 714 345CZK |
| Bank Y | 18 600 000 CZK | 96 898 CZK | 18 696 898 CZK |

After the distribution of option premium into exchange rate, it has been founded effective exchange rate of 24.952 CZK/EUR in Bank X (or 24.929 CZK/EUR in Bank Y). The company is sure that pays no more than just 24.952 CZK/EUR in Bank X (or 24.929 CZK/EUR in Bank Y). To make this option activated, the spot rate in both cases must cross the barrier 25.000 CZK/EUR by the day of expiration.

According to the Fig.10 it is clear when the company makes a profit or loss. For the company occur only two possibilities arising from the current rate on the day of expiration. In case of exchange rate do not reach the barrier on the day of expiration (25.000 CZK/EUR), the option are not activated and the company loses the option premium 147 345 CZK in Bank X (or 96 898 CZK in Bank Y).

On the contrary, if the bottom barrier is broken, the company gains additional profit, the amount is depended on the current course. The entire volume of the contract is carried out at the exchange rate 24.756 CZK/EUR and after adding a premium for 24.952 CZK/EUR in Bank X and 24.800 CZK/EUR effective exchange rate of 24.929 CZK/EUR in Bank Y.

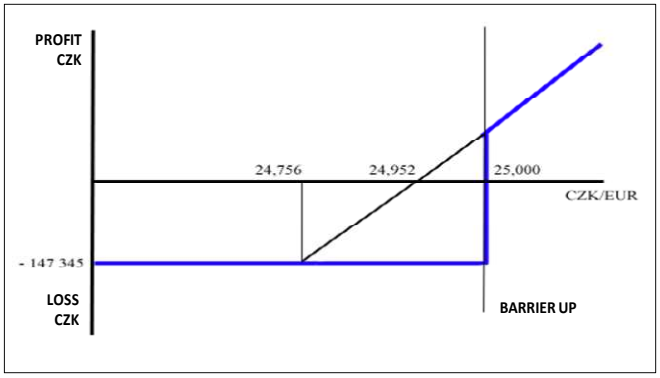


Fig. 10 Profit and loss borders when using barrier option in Bank X

## Hedging performance

The currency option performance is described in Table 3. ; knock-in option was set in both cases at the level 25.000 CZK/EUR, so both products were activated.

Table 3 Performance of both currency knock-in options

| Institution | Strike price | Effective course | Spot rate 23.4. | Convenicence |
|---|---|---|---|---|
| Bank X | 24.756 CZK/EUR | 24.952 CZK/EUR | 24.056 CZK/EUR | Yes |
| Bank Y | 24.800CZK/EUR | 24.952 CZK/EUR | 24.056 CZK/EUR | Yes |

The company has a choice whether the contract will be accepted. Both are convenient and bring additional profit. Better variant is using currency knock-in option in Bank Y, where additional profit reached 95 102 CZK. Another benefit was lower option premium and lower exchange rate. Bank X option provided additional profit 77 655 CZK.

Table 4 Profit and loss with barrier currency knock-in option.

| Institution | Hedged amount | Unhedged amount | Profit/loss with option | Profit/loss without option |
|---|---|---|---|---|
| Bank X | 18 714 345 CZK | 18 792 000 CZK | 77 655 CZK | -147 345 CZK |
| Bank Y | 18 696 898 CZK | 18 792 000 CZK | 95 102 CZK | -96 898 CZK |

## X. Accounting Aspects of Hedging

The complete understanding of an accounting view on financial instruments (especially derivatives) can only be reached by following their historical development being interrelated with capital market evolutions. Moreover, developments in accounting theory should also be included when aiming for a comprehensive picture. Godfrey et al. [12] discuss the main periods of theory development comprising practice development, pre-theory period (continued development of practice), formalization of practice, general scientific period (explanations of practice and development of explanatory framework), normative period (statement of ideal practices and basis for achieving such practices), positive accounting theory (a framework to explain and predict behavior) and mixed developments (positive and behavioral theories).

We consider worldwide known bankruptcies that pointed out a series of gaps in national accounting systems to represent a significant factor in the development of accounting theory, or at least in emphasizing the components of previous developments. The significant number of financial scandals made stakeholders express their concern regarding the ability of financial information (supposable useful based on accounting standard setting bodies declared objective) to signal or prevent such financial catastrophes. What these financial scandals confirmed out of the positive accounting theory is that one of the parties acted in order to maximize its own wealth in the obvious detriment of the other party. We are therefore tempted to consider the necessity of developing a comprehensive theory with regard to the impact accounting practices could have on human behavior instead of focusing on explaining past events and the corresponding behavior.

Moving forward towards the category of studies focusing on accounting regulations and accounting practices we find Ahmed et al. [1] documenting that investor valuation of derivative financial instruments differs depending upon whether the fair value of these instruments is recognized or disclosed. Based on a sample of banks that simultaneously held recognized and disclosed derivatives prior to SFAS No. 133, Ahmed et al. [1] find that the valuation coefficients on recognized derivatives are significant, whereas the valuation coefficients on disclosed derivatives are not significant. Moreover, when using a sample of banks that had only disclosed derivatives prior to SFAS No. 133, which were recognized after SFAS No.133, their results document that while the valuation coefficients on disclosed derivatives are not significant; the valuation coefficients on recognized derivatives are significant. Ahmed et al. [1] therefore contribute to arguing for the view that recognition and disclosure are not substitutes.

In terms of accounting for derivatives we have to mention an older study which we consider relevant in terms of providing an example of the analysis necessary to prepare and evaluate accounting for a derivative transaction.

Cerf & Elmy [7] do this through the logic developed in the case questions providing the ability to understand: (1) the international interest rate environment which motivates currency transactions; (2) foreign exchange rate risk; (3) how the cash flows of the currency swap interact with the cash flows of the debt to hedge the foreign exchange risk, (4) how entering into the currency swap mitigates currency risk, but exposes the company to counterparty credit risk and legal risk; (5) the attributes of accounting and reporting for the debt and currency swap as separate instruments or as a combined synthetic instrument; and (6) accounting for the currency swap at fair value.

## XI. Discussions

Managers of SMEs very often suppose that currency hedging is suitable only for trades with a very high face value. There are also products in the "hedging instruments' market" that are affordable and available for SMEs, so they could hedge contracts in very low volumes, e.g., 1000 EUR or USD. Lower sums are covered by CFDs (Contract For Difference) which are derivates similar to forward, but at the maturity day there is no delivery of currency or currency option. CFDs operate on basis of leverage and companies need to pay down a smaller amount of money. The price of it is a spread.

A SME can as a treatment of exchange rate risk use netting, which is based on including receivables in the same currency. It is assumed that for the branch in one country that has opened long positions in certain currency, you can find a branch in another country that has short position in the same currency and with the same maturity. It is advantageous in two ways – elimination of exchange rate risk and also reduction of transaction costs related with conversion of foreign currency. In the case study above is shown, that there is no necessary to have huge volume of currency for hedging. Barrier options are optimal for such trade, because the level of risk is known in advance and there is also possibility of non-activation.

Exchange rate hedging is not worth in every case. It is always necessary to judge the costs and risks caused by a company. Hedging is convenient mainly for companies having single shot high volume trade or for those having regular long term foreign trades.

## XII. Conclusion

From the general point of view, risk management in the Czech Republic is in its early stage. SMEs do not have extra team of risk managers - they don't even have a single one. Focused on financial risk management are enterprises reliant to bank services and advices which could consequently lead to losses or higher expenses. We found out several reasons why FX risk hedging isn´t so popular in the Czech Republic.

We documented the reputation of some contracts, such as forwards and swaps, which have proven themselves to

investors by some years now. Both bankers and entrepreneurs themselves already have experience with such contracts in the Czech financial market. The characteristics making these contracts attractive are their particular clarity and low complexity of the contract. The expected uptrend of CZK/EUR accompanied by high volatility rate seems to facilitate the use of more financial derivates, especially options, but contrary is the case. Bankers are very cautious in offering such products to initiated public and very often do not even know how will the situation with financial crisis develop in future days. For better explanation of quite easy way of hedging FX risk there is a case study showing, that the company could get extra profit and avoid losses. Banks have different policy when issuing securities which makes the market satisfactorily competitive.

Usually there is a variance when offering exchange rates, spreads, interest rates, premiums, etc. In our case the company got better offer from Bank Y and could reach extra profit with lower costs. The system of barrier option is similar to plain vanilla option, but they are cheaper than the vanillas. Thus, barrier options were created to provide the insurance value of an option without charging as much premium. Technically, this type of contract is not an option until a certain price is met, so if the price is never reached it is as if the contract never existed. Knock-ins are a type of barrier option that may be either down-and-in option or an up-and-in option.

A bank issuing barrier option set the strike price, maturity, premium and the knock-in barrier. Such option is inactive by the time of reaching the barrier by spot price on FX. The other issue is using of appropriate pricing model, etc. but it is not a topic of this paper. We tried to find the reasons and practical ways for common users for hedging FX risk.

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