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## ABSTRACT

The report presents a way of risk management in a company as an example of X that operates in the textile industry. The company is exposed to such the risks arising from fluctuations in exchange rates (mainly EUR / ABC and USD / ABC). The contents show how using one of the options strategies we are able to mitigate the currency risk arising from operations.

## INTRODUCTION

The risk associated with any business activity conducted in the economy market can be understood in two ways. The first is the situation when it is possible to achieve an effect that will be very different from the expected result. This approach is called a neutral approach. Another way of understanding risk is when there is the possibility of not achieving the desired effect of approach negative. The theme of this work is the currency risk, the negative effects will try to limit. Every business, personal, portfolio investments and the by-products of Assets, contracts or other types of uncertainty in a risk / deviation are exposed to or less than the expected return. Every prudent investor and portfolio manager of the analysis is run by the investments and Risk (especially of non-systematic risk) and the parameter / Volume Assessment Name of financial engineering or risk management to take steps. Now Capital market terminologies and the mechanic is a widely used various players in the financial investment market. Despite efforts, each of the tendencies to reduce investment risk by risk analyst is also known as Activity management. Why are interested in participating in the capital market sector Make himself / herself very clearly familiar with the concept of risk should Early. In fact, uncertainty leads to loss of or associated with the outcome of the event Also known as the risk of lower than expected return. A mathematical point of view, The risk that expected returns vary from the results.

## APPLICATIONS OF OPTIONS AS RISK MANAGEMENT TOOLS

Calls and put fare two types of options. The call holder holds the right to buy an asset at a predefined time, a predetermined time. Calls on the stock of long positions are the same. Call buyers hope that the asset will increase considerably before the expiry of the option. On the other hand, a put holder the right to sell the property at a certain time, a certain amount of time. Put on a short position in a stock that is very similar. We put buyers Options expire before the stock price will fall. Depending on the options they have four types of market participants take: Call buyersCall SellersPuts buyersSellers placesLong positions are said to be buyers, and sellers are said to have a short position. If call holders/put holders choose to exercise their rights of choice. But, the authors call and Writers (sellers) put it, however, are responsible for buying or selling. This means that the seller purchase or sale may be required to make good on the promise. Under the stock can be bought or sold is called the strike price price. The stock price (for puts) goes above (for calls) or must go down in price Profit before one can exercise for one term. All this is done before expiration date. For call options, the options are on the share price is in the money strike price. Share price is below the strike of the put option is in the money price. The money is the amount by which an option is known as intrinsic value. One option the total cost (price) premium is. The price is determined until the end of the stock price, strike price, time remaining (by factors including time value) and volatility.

## Derivatives in India

Security Contracts (Regulation) Act, 1956 was amended in December 1999`Securities and derivatives are included within the area of ​​regulatory framework that was developed to manage derivatives trading. Derivatives were formally defined Include: A debt instrument, share, whether derived from secured loan or security. After final approval of SEBI Derivatives trading commenced in India in June 2000 approval to this effect in May 2000. This is based on two indices and options on individual securities. Trading in index Options in June 2001 and started trading options on individual securities Began in July 2001. Individual stock futures contract was launched in November 2001. Derivative Contract rules, byelaws, and regulations are traded and settled By house / corporation to approve the relevant exchanges and their clearing SEBI and notified in the Official Gazette.

## Derivative products in the Indian market

Various derivative products are described below: Next - " the Agreement", between the two companies is a custom contract settlement happens on a predefined date in the future at today predetermined price. Forward - " futures contract" is a contract between two parties to buy or sale an asset at a predetermined price at a certain time in the future. Futures contracts forward contracts are typical in the sense that the former is Standardized exchange-traded contracts. Options - " options contract" is not right, but the obligation, to buy or, on or before, under a certain amount sold at a fixed exercise Expiration date. Swaps - " Exchange" refers to a private contract between two parties’ future cash flows according to a fixed formula. Two commodity swaps Interest rate swaps and currency swaps are used to. Warrant - usually a one-year life of the options is most options on exchange traded options, nine have a maximum maturity months. Options with long term to maturity - warrants - traded over-the-counter. Swaption - Swaptions are options to be swap, buy or sell options on the completion of the operative. The swaption is an option next swap. Instead of calls and puts, the swaptions market receiver swaptions and payer swaptions.

## Options on how to use

Options to hedge the portfolio risk are not only the highest in the world, which are used return on investments. One view is taken on the basis of the market the basis of the available basic information on various strategies to be Working. Option trading is where one can develop platform that provides strategies and techniques to achieve its objectives based on the risk and return parameter. Some common methods are discussed below: You expect the bull market When

## 1. Call Buy

View: Significant increase in short term. Strategy implementation: call options with a strike price of purchase. TheMore bullish investor should be a higher strike price. Potential upside profit potential is unlimited and increases as the market grows. At the end of Breakeven point: strike price plus premium. Loss risk: limited to the premium paid - at the end of the market, if the at, or below, the strike. Margin: not required. Tip: if you are in the market will decrease slightly as the value of the Position Option has time value.

## 2. Put Sell

Strategic View: Go down to the investor market that is accurate, but be unconcerned about whether he / inaccurate. Strategy Implementation: put options with a strike price are sold. If one the money will be sold in the lay investor, then it is bullish. Potential upside: Unlimited, excluding the purchase option is a short option (The office will then direct the call to purchase) is finished. Status at the end of the option near the market closed, the maximum profit will accrue the sold strike level. Strike plus / differences limited to the initial debit / loss risk Credit, when the spread. Margin: Yes, it can be applied to set off. Comment: (ie being exercised) is said to be at risk in selling options. You expect a bearish market When

## 1. Buy Put

View: Significantly reduced short term. Strategy Implementation: put option with a strike price of purchase. The more bearish investor should be a lower strike price. Potential upside profit potential (well, not really unlimited is unlimited as the market of course) cannot fall below zero. At the end of Breakeven point: strike price minus the premium paid. Loss risk: limited to the premium paid - at the end of the market, if the or on strike. Margin: not requiredTip: if you are in the market will decrease slightly as the value of the Position Option has time value.

## 2. Call Sell

See strategies: to increase investment market and it is certain / uncertain whether it will fallStrategy implementation: a call option with a strike price is sold. If investor if not, then their vote should be sold at the money options are very specific Less accurate, then the out-of-the-money ones will be sold. Potential upside down: limited to the premium received - ultimately gaining market Completion, at or below the option strike. Damage Risk: Unlimited. Loss on the position as the market will get worse Increases. [If you like the idea of ​​a strategic investor, but the risk of damage, they A bear spread may be of interest]. Margin: always necessaryTip: the less, and time passes, short as this helpsPosition of time erodes the benefits.

## 3. Bear Spread

Strategic View: The investor thinks the market will go up, but wants to controlRisk. Conservative strategy, which is to think that for one, the market is more likely Fall than rise. Strategy Implementation: A sold call options with a strike price, other Call option produces a net initial credit, a strike with B purchase Or Put option, it is sold with a single strike, and strike with the purchase of another put B Produce a net initial debit. Potential upside down: In both cases, Ltd.: - from: net initial credit places: the difference Strike after the expiration of the initial debit Maximum profit is below the market Lower strike. Loss risk: in both cases limited: - from: the difference between the strikes less Into the opening credits: net initial debit Maximum loss is up at the end of the market High strike. Margin: margin requirements are likely to set off. Comment: This is no time to adjust the position due to significant price erosion.

## 4. Diagonal Spread

Strategy View: Investor market may be flat or only slightly, or thought Short term, but will be later. Implementation strategy: near-dated put option selling and buying long-term out-of- Put money. Upside potential is huge if given the option to purchase, then the short option expires (The term then is placed directly next to the shop). If the office is closed Market level, the closer the option expiration, the maximum profit will accrue If the strike is sold. Strike plus / differences limited to the initial debit / loss risk When the credit spread. Margin: Yes, but limited. Comment: Here (ie after exercise) are called risk options are sold. Volatile Market

## 1. Buying a straddle

Strategic View short term investors in the market will be very volatile and think. Implementation strategy: call option and a put option is purchased withA strike price - usually the at-the-money. Potential upside: UnlimitedAt the end of Breakeven point: the lower point of the strike after two premiums Have paid, and the upper strike plus the premium. Damage Risk: The premium paid is limited to two. Investors want to [the Reduced premium payments, may be interested in purchasing grip]Margin: not requiredTip: Position diminishes over time as the value with the passage of time is the loss of value Options.

## 2. Buying a strangle

View: market inconsistent short term [This is similar to buying a straddle, but here is a Premium paid less]Strategy Implementation: put option with a strike call option is purchasedB. strike with the purchase. Potential upside: Unlimited - market should decline or increase greatly. Damage Risk: The premium paid is limited to two. Investors want to [the Premiums paid to reduce still further, may be interested in a short butterfly]. Margin: not required. Tip: Position diminishes over time as the value with the passage of time is the loss of value Options.

## 3. Short Butterfly

Strategy View: Investor mildly thinks the market will be volatile. Strategy implementation: a call option with strike B is sold, two call optionsStrike call option with strike bought and sold with C. [Similar positions can Places]. Can be made withPotential upside down: from the initial credit limit. Damage Risk: Limited difference, between the lower and middle strike, Less the initial credit spread. Margin: close up may be available. Tip: To quickly execute this strategy can be difficult. Stable market

## 1. Straddle Sell

Strategy View: Investor (certain is that I will not be quite volatile market Two) go down too much. Strategy implementation: the call option and the put option is sold with Strike price. Potential upside down: the premium received for the limited - not, to be realized At the end of the market is equal to the strike price level. At the end of Breakeven point: The low point (B) will strike the Value of the premium received, the upper point (C) plus two will strike The premium received. [Sold grip, investors want to expand the band, the It may be interesting]. Damage Risk: Unlimited - market will fall or rise too. Margin: always required. Comment: After a few positions in the market value of the benefit as if Time value of the option is to get a short position.

## 2. Strangle Sell

Strategic View: The investor thinks that the market will remain volatile within a broadish band. Strategy Implementation: put option with a strike price it is sold, and the call is Option B with the highest strike price is sold. Potential upside down: the premium received is limited to two. At the end of Breakeven point: Lower point (C) is lower after strike The premium received, the upper point (d), plus two higher strike will The premium received. Damage Risk: Unlimited - market will fall or rise too. [If the investor Like this strategy, but the risk of damage, the long butterfly interesting] can be. Margin: always required. Comment: After a few positions in the market value of the benefit as if Time value of the option is to get a short position.

## 3. Long Butterfly

Strategy View: Investor thinks that the market will be volatile, but wants to The risk of loss of control. Implementation strategy: call option with a lower strike call options purchased and B. 2 C buy and sell with the middle strike call option with a higher strike. (The same Position is built with places, but) to be less common. Potential upside limited - the difference between the lower and middle Establishing a net debit spread the strike. Loss risk: the spread set up, is limited to the initial net debit. Margin: margin should be possible. Tip: To quickly execute such a strategy can be difficult.

## 4. Calendar Spread

View: Market weak in the short term, but Long-term rally. Strategy Implementation: dated call option is sold, and is a long-term callWith the option of buying the same strike. [An investor, has the opposite view Drops can be made with the comparative strategy]. Upside potential: large, excluding the purchase option is a short option (The office will then direct the call to purchase) is finished. Status of the at the end of the option near the market closed, the maximum profit will accrue the sold strike level. At the end of Breakeven point: strike price plus the premium. The risk of damage: to establish the spread is limited to the initial debit. Margin: close up may be available. Comment: (ie being exercised) is called the risk of selling options. Sometimes, horizontal or time spread is called.

## 5. Covered Call

Strategy View: Investor Stock Market will increase, but it is not Stock are neutral short-term, or it may be obtained by the sale of revenue Call options against stock holding. Strategy Implementation: Call options are sold. Number of call options sold Investors and stock market performance will be determined by size of holding. Potential upside limited - by selling calls, the investor can write off Stock Position profit potential. Maximum profit is the after strike Market price plus the premium received. Loss risk: Large: Common Stock ownership of that as well, Only from the (fixed) set off in part by the option premium. Major damage can be Opportunity loss if the market rises strongly. Margin: always required.

## THORETICAL DESCRIPTION OF METHOD

Foreign exchange risk is caused mainly due to changes in exchange rates on the market. It applies to all assets and liabilities whose values ​​are expressed in a currency other than that in force in the country in which it is established. Therefore, the exchange rate risk occurs in companies that import or export goods and materials. Changing course can be both beneficial and detrimental to the company. Therefore, many businesses refer to the risk management departments, which are designed to reduce the adverse effects of changes in foreign exchange. The exchange rate risk management can take one of the following strategies: a) Hedging strategy; b) The strategy of matching cash flows. Hedging strategy involves the use of derivative instruments as part of risk protection. A derivative is a financial instrument whose value depends on another financial instrument. Most frequently cited derivatives are options, futures and swaps. The hedging strategies are among the most effective in the management of the risk of changes in exchange rates. To prevent an increase in the exchange rate, you should take one of the presented strategies: a long position in a CALL option; a long position in a futures contract or forward contract; to position in swap contract in which the entity receives payment in foreign currency, and make payments in national currency. To protect against a decline in the exchange rate, you should take one of the presented strategy: a long position in the PUT option; a short position in a futures contract or forward contract; to position in swap contract in which the entity receives payment in national currency, and make payments in the currency obcej. 5Often used cash flow matching strategy because it is a neutral strategy, and in addition simple. The strategy is to create a situation where there is a cash flow in foreign currency (in cash flow or cash flow out) with known values ​​are secured by a reverse flow of money in the same walucie. 6 example, if a company purchases materials and sells its goods in Euro, then all received payment for goods allocated for the purchase of materials.

## PRACTICAL EXAMPLE OF APPLICATION METHODS SELECTED COMPANY TEXTILE INDUSTRY

Company X has operations in the textile industry. He specializes in the supply of textile accessories such as pillows or mattresses, not only for themselves but also for foreign producers. Company’s large part of their materials and products purchased outside Polish borders, m al. in countries where labor costs are low, and the geographical areas allow for a close source of the material. Therefore, most often brings products from the Far Eastern countries such as India, China, and Vietnam. The result is that most of the company's liabilities is denominated in foreign currencies, namely U. S. dollars. The majority of revenue is derived from sales while domestic, so it is denominated in Polish zlotys. The increase in the USD / ABC could adversely affect the financial results of the company, so the company must take action to secure their obligations against the currency risk. The use of option strategy to hedge against currency risk in the company X: The company must pay for goods manufactured in India. Therefore, in order to protect against adverse changes in the USD / ABC, the company implemented a strategy to purchase CALL option on USD. The use of this strategy will not only help to avoid the negative impact of the increase in the USD / ABC, but will also help to reduce costs in the case when the rate drops. Assumptions: Type options: CALL option; Underlying: Currency - U. S. Dollar (USD); Option is exposed to $ 10 000; The date of issue of options: 15. 03. 2013; Expiration date: 5/15/2013; Exercise price (settlement): 3 ABC / USD; Option price: 0, 035 ABC / USD; Invoice of purchase: USD 500 000; Invoice date of purchase: 01. 01. 2013; Payment date: 25. 05. 2013; Number of purchased call options: 50, Premium amount: 17 500 ABC. There are therefore three situations: First, when the USD / ABC rate is equal to the settlement of the option, ie ABC 3 per USD, in this case, it does not matter whether the option is exercised or not, the company X will incur a loss in the amount of ABC 17 500; Second, while the USD / ABC exchange rate is lower than the settlement of the option, ie less than ABC 3 per USD, in this case, company X has not exercised the option, and the loss will amount to ABC 17 500; Third, when the USD / ABC rate is higher than the rate settlement options, ie over ABC 3 per USD, in such a situation, the company X should exercise the option to minimize losses and achieve additional benefits. As shown in the Figure 1, the strategy adopted by us in the worst case brings a loss of 17 500 ABC. It should however be noted that the possible income from the options are endless, as with the increase in the USD / ABC grow revenues, and a possible increase is theoretically unlimited.

## SUMMARY

Companies that fear of losses arising due to changes in foreign exchange rates should take into account the possibility to hedge against this risk in the form of lectures proper position CALL option on the currency. This can significantly reduce the fluctuations in the value of the result before tax, which is more possible to predict.

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