шенствованной модели организации инновационной деятельности предприятия и разработанной модели комплексного инновационного процесса требуется совершенствование инновационной деятельности предприятия. Также принятие решения о внедрении инноваций на промышленном предприятия, в том числе принятие решения о совершенствовании модели её организации, требует оценки экономической эффективности проводимых мероприятий. Для этого необходима разработка методики определения эффективности инновационной деятельности промышленного предприятия как оценочной системы показателей. [4]

Предприятия используют различные подходы для измерения своей инновационной активности, некоторые из них имеют целостную систему показателей инновационной деятельности, которая сочетается со стратегическими интересами предприятия. Чаще всего оценка эффективности инноваций на промышленных предприятиях осуществляется с использованием «классических» финансовых показателей. Однако система показателей инновационной деятельности также должна включать не только финансовые, но и качественные показатели, динамика изменений которых поможет вовремя выявить проблемы в системе управления инновациями и принять меры до наступления кризиса. Система должна стать частью внутрикорпоративной системы показателей и периодически пересматриваться с учётом изменений окружающей среды предприятия. Для эффективной оценки показателей можно использовать сбалансированную систему показателей для оценки инновационной деятельности предприятия. Сбалансированная система показателей включает в себя несколько экономических показателей и может применяться на любом промышленном предприятии, осуществляющем инновационную деятельность.

Данная система показателей поможет предприятию проанализировать его способность к инновационной работе, качество осуществления этой работы, а также позволит оценить инновационную активность предприятия, конкурентоспособность продукции.

Таким образом, применение комплексного подхода внедрения инноваций на предприятиях промышленного сектора приведет к динамичному развитию предприятия, укреплению конкурентоспособности, укреплению маркетинговой политики.

СПИСОК ЛИТЕРАТУРЫ

1. Архипова В.Ф., Голумидова А.В., Экономическая эффективность инвестиций в строительную сферу: Учебное пособие Владимир: ВлГУ, 2010. 73с.

2. Балабанов И.Т. Инновационный менеджмент. СПб.: Изд-во «Питер», 2009. 208с.

3. Повышение инновационной активности экономики России. РАН, Институт экономики, Москва. 2004. 212с.

4. Теплова Т.В. Финансовый менеджмент: управление капиталом и инвестициями: Учеб. Пособие -М.:ГУ ВШЭ, 2000. 504с.

5. Trajtenberg M. Economic Analysis of Product Innovation Cambridge, Massachusetts : Harvard University Press, 1999

6. Shumpeter J/ Business Cycles, vol I and II N.Y.:McGraw - Hill, 1939

7. Roman D.Science, Tecnhology and Innovation: A System Approach -Ohio, 1980, c.291

FEATURES AND NEED INTRODUCTION OF INNOVATION IN ENTERPRISES

A.A. Schiptsov, applicant
University of the Russian Academy of Education, Moscow (Russia)

Annotation: Strategically sustainable development of industrial enterprises is impossible without constant innovation and continuous conduct. In terms of economic competition must continually improve their level of development, to update, improve and transform its products, improve and modernize production. This could be done based on the innovation. However, for the current period to the Russian industrial enterprises not updated product mix, and innovation activity is not high enough. This situation has a negative impact on the development of an industrial enterprise and its subsidiaries. Thus, in the current market conditions, you need a hands-on approach to solving problems in the area of innovation.

Keywords: innovation, industry, innovation policy, the effectiveness of economic activity.

УДК 336
JEL: G13, G23, G32, B26

СТРАТЕГИИ ХЕДЖИРОВАНИЯ КОЛЕБАНИЯ ЦЕН НА АКЦИИ КОМПАНИИ UPS INC

М. Джонсон, финансовый директор
GAC Ltd, Великобритания

Аннотация: В статье рассмотрены такие финансовые инструменты как опционы и фьючерсы. Представлена структура опционов и как они могут быть использованы инвесторами для спекулятивных операций и хеджирования. Проведены исследования стратегий хеджирования от колебания цен на акции компании United Parcel Services Inc (UPS Inc). В статье будут представлены и разработаны стратегии для хеджирования инвестиций в акции UPS Inc. В первой части статьи будут рассмотрены стратегии, основанные на информации, имеющейся в июне 2011 года, во второй части– проведен анализ результатов этих стратегий через год (июнь 2012 г.). Назначение начнется с введения в опции; представить дискуссию о том, как они стоят и какие опции могут быть.

Ключевые слова: Опционы, фьючерсы, опцион пут, опцион колл, стратегии.

A great number of studies over the last decade focused on the development of financial instruments hedging the risk to investors (see Hull J., 2011; Crouhy, M., Galai, D., Mark, R., 2006; Elton, E., Gruber, M., Brown, S., Goetzmann, W., 2011; Jordan, Lenny, 2011; etc.). A lot of Russian scientists also pays careful attention this subject (see Burenin, A, 2008; Galanov, V, 2007, etc.). The understanding of this fact has led to the development of new financial instruments, adapting them to the situation. Many companies now line up strategies for the tasks to reduce price risk.

Options can be used by investors as a tool to hedge on the values and volatility of almost any asset. They can also be used as a method to speculate against price movements; rather than using valuable cash flow by purchasing an underlying asset in a bull market to speculate on its price rising and keeping it until the price is right to sell, an investor can buy either a long futures contract or a call option to buy the asset in the future. Thus the speculator does not tie up cash on a purchase and can benefit from the asset's price rising. However there is also the risk that the asset's market price will go down and neither holding the asset or a futures contract on its own will protect the investor against a price fall. An option on the asset can provide a way to severely restrict any loss: (to the cost of the option) and a strategy of combi-

nations of put and call options or buying and selling options at different strike prices and expiry dates can speculate and hedge against any loss scenario, whilst also providing an opportunity to profit from any upside price movements [1], [2], [3].

A futures contract will provide the investor the obligation to own the asset on the determined date. This helps the investor's cash flow but does not protect her from a price fall. The investor can also buy a call option to buy the asset in the future. The difference between a futures contract and an option is that the downside risk for the investor is mitigated. A fee is charged by the seller of the option; the buyer has the option, but not the obligation (as opposed to a futures contract where there is a purchase obligation) to purchase the asset. If the market price of the asset is actually lower than the purchase option the investor will not exercise the option and his loss on the contract is limited to the option fee. Therefore the investor has unlimited upside profit whilst reducing any possible loss to the level of the call option price [1, p.206].

The situation is the opposite for the seller of the call option. The option seller's possible profit is capped at the fixed option price whilst the down size risk is unlimited. Call options are used primarily for speculation on and hedging against price rises. The pay-off profile below for a call option (fig. 1)

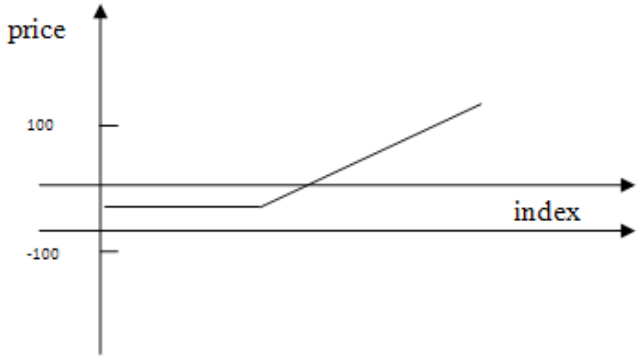

Figure 1: Call option Profit Profile

To summarize; a call option is the right to buy the underlying asset at a specified price for a specified time period. [4, p. 14]

Options can also be used in a bear market for speculating on and hedging against price falls. A put option gives the asset owner the option to sell an asset at a predetermined (Strike) price in the future. If the price falls lower than the strike price the option is exercised and the asset's value is protected. The cost of this hedging will be the options price. The payoff profile for a put option is shown below (fig. 2)

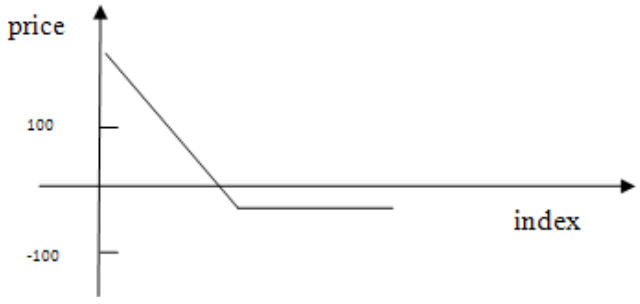

Figure 2: Put option Profit Profile

As with a call option the risk return and potential for the put seller is the opposite to that of the put buyer. [4, p.20] Also as with the call option the profit profile shows that the risks and returns are asymmetrical: unlike with futures where the buyer and seller face equal pay offs in opposing directions.

There are two types of options – American and European. American options can be exercised at any time before expiration whilst the European option cannot. [1, p. 205] This assignment will cover only European style options. European options are priced by using the Black-Scholes-Merton model or models based on this formula. The inputs for the model are:

- The strike price of the option
- The price of the underlying asset
- Time until expiration
- Short term interest rate
- Volatility, historical or implied

If the stock price increases and all of the other parameters are constant the value of a call option increases as the option is more likely to be in-the-money. On the other hand the higher the strike price the lower the premium as it is less likely to be in-the-money [5, p.119].

It is important to understand how each of these elements can be affected by changes in the asset price and the market. The major variables are a change in the underlying asset, the passage of time and a change in the implied volatility. Exposure to these variables is measured in options theory by a batch of mathematical calculations that are called the Greeks; these are an invaluable aide in determining the risk/return potential of an option. Delta measures the amount an option changes when there is a change in the price of the underlying asset. The covers exposure to the passage of time and captures the exposure to a change in the implied volatility. [4, p. 47] Thus the Greeks provide a method of determining the volatility of the relationship between the variables and option pricing attempts to capture the right risk premium for the underlying asset [1].

Turning now to the specific question regarding an investment in UPS Inc. shares; the first question is how to hedge with options against a price decline for a one year period whilst holding a long position on the stock on 30th June 2011. To hedge against a price decrease there are a number of options strategies available: a long position in a put option on the shares; or short call on the shares. These will provide a hedge against a price decrease but will not capture any upside profit if the price were to rise. Another bearish strategy is using a combination of put options called a bear put spread. The investor in UPS Inc. has increased profits based on an increasing function of the sales price; therefore to hedge the investor's position it is necessary to take a position that is based on a decreasing function of the asset price.

A long position in a put will protect the downside hedge but the investor will not be able to benefit from price increases. A sort position in a call will provide limited protection against a small price fall but could result in large losses if the price were to fall by a large amount. If the volatility of the share is not too extreme the strategy to use is the long bear put spread introduced above; this is a combination of selling an out-of-the-money short put with a low strike rate and buying an in- the-money long put with a higher strike rate. Together with the long position in the stock this strategy will provide a larger region of protection. The strategy is spreading the risk of a straight options position by taking the opposite long or short position at a strike price that is more distant from the share price [4, p. 73].

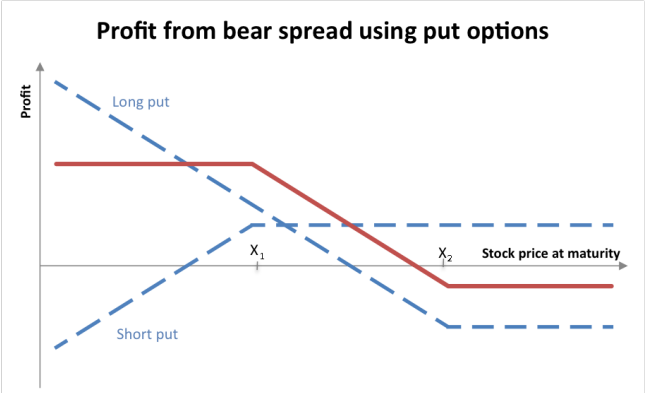

Figure 3: Bear Spread profit profile

The price of the options for the bear put spread will be calculated using the Black-Scholes-Merton equation and the

DerivaGem software and the put-call parity formula to find the price for the put. The formula uses the following data:

Current market price of the share S = $70.23

The strike price for the shares are K = minimum $53.15, maximum $70.23

The rate of interest r = 0.73%

Maturity t = 1 year

The variance of the share is = 17.1%

The Black-Scholes-Merton formula to calculate the cost of a call option is:

$$C(S,t) = N(d_1)S - N(d_2)\,Ke^{-r(T-t)}$$

$$d_1 = \frac{\ln\left(\frac{S}{K}\right) + \left(r + \frac{\sigma^2}{2}\right)(T-t)}{\sigma\sqrt{T-t}}$$

$$d_2 = \frac{\ln\left(\frac{S}{K}\right) + \left(r - \frac{\sigma^2}{2}\right)(T-t)}{\sigma\sqrt{T-t}} = d_1 - \sigma\sqrt{T-t}$$

And the call-put parity formula: $P = C - S + e - rt \times K$.

Using the above data the cost of the option using the DerivaGem software calculated the price as 20 cents for the low strike price and $4.52 for the higher strike price. (table 1)

Table 1: DerivaGem data for Put Option Cost Calculation 2 Strike Prices

Underlying Data	
Underlying Type:	Time
Stock Price:	70.23
Volatility (% per year):	17.10%
Risk-Free Rate (% per year):	0.73%
Option Data	
Option Type:	
Time to Exercise:	1.0000
Exercise Price:	53.15
Price:	0.20364256
Underlying Data	
Underlying Type:	Time
Stock Price:	70.23
Volatility (% per year):	17.10%
Risk-Free Rate (% per year):	0.73%
Option Data	
Option Type:	
Time to Exercise	1.0000
Exercise Price:	70.23
Price:	4.51673056

Now the analysis will turn to the investor having a short position in the UPS Inc. stock. What options strategies could be used to hedge now against price increases? The position requires a bullish strategy that includes a long call or a short put. These will provide various degrees of protection against price rises but will not allow any profits on any downward movement of the price. A suitable strategy could be using a bull call spread whereby buying a long call with a low strike price is combined with selling a short call with a high strike price. This strategy will provide a complete hedging for a range of prices (between the two strike prices) up or down for the UPS Inc. shares. But the investor could still benefit from large reduction in the price and face losses on very large price rises. (fig. 4).

The option price will be calculated using the following data:

- Current market price of the share S = $70.23
- The strike price for the shares are K = minimum $70.23, maximum $73.13
- The rate of interest r = 0.73%
- Maturity t = 1 year
- The variance of the share is = 17.1%

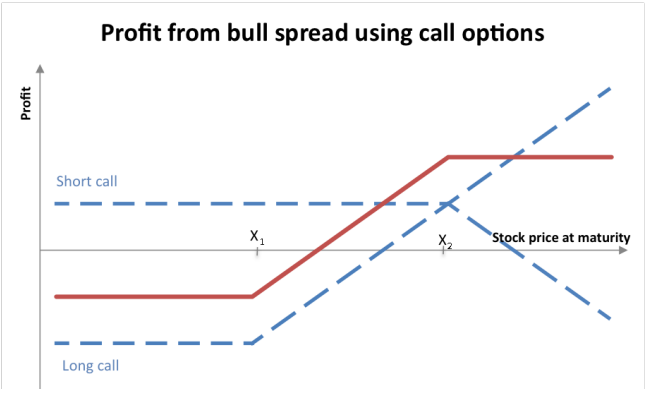

Figure 4: Bull Spread Profit Profile

The cost of the call options using the Black-Scholes-Merton formula and the DerivaGem software are $5.03 for the low strike price and $3.77 for the high strike price. (table 2)

Table 2: DerivaGem data for Call Option Cost Calculation 2 Strike Prices

Underlying Data	
Underlying Type:	Time
Stock Price:	70.23
Volatility (% per year):	17.10%
Risk-Free Rate (% per year):	0.73%
Option Data	
Option Type:	
Time to Exercise:	1.0000
Exercise Price:	70.23
Price:	5.02754283
Underlying Data	
Underlying Type:	Time
Stock Price:	70.23
Volatility (% per year):	17.10%
Risk-Free Rate (% per year):	0.73%
Option Data	
Option Type:	
Time to Exercise	1.0000
Exercise Price:	73.13
Price:	3.77280712

To summarize the strategies chosen are a bear put spread to hedge against a price fall and a bull call spread to hedge against price rises. Now the discussion will turn in part 2 to a review one year later in June 2012 to see how successful these strategies have been.

On the 29th June 2012 the stock price for the UPS stock is $78.17. How successful have the bear put and bull call strategies been? The bear put option would not be exercised as the actual selling price of $78.17 is higher than the higher put price of $70.23. The premium paid on the long put of $4.52 is reduced by the premium received on the short put of 20 cents. Hence the net loss is $4.32. The reason for the big difference between the two premiums is that the long put strike price of $70.23 was at the money being very close to the actual stock price when the option was purchased. Thus the possibility of the option finishing in the money and hence exercised are deemed to be high. By contrast the short put's premium of 20 cents is due to the low strike price being strongly out of the money and facing a low probability of being exercised, which in this case is good news.

Thus the bear put strategy used here was not needed in hindsight as the share price increased. However any downside risk was fixed at $53.15 and the stock was successfully hedged against a price fall. The cost of this is the net premium paid of $4.32 which is a cost of 6.13% of the June 2011 stock value. There is also the cash flow benefit of the 20 cents premium on the short put; but this is very

small.

Looking back were there better ways to hedge the risk and could the investor have benefited from the share price actually being higher? If the position was not hedged there would have a profit of $7.94 ($78.17 less $70.23) so this strategy has missed out on the upside. A short min-max option strategy would offer a hedge over a larger variation of the asset price which in this case would be more appropriate. A volatility of 17.1% is high and the bear put spread could not capture the upside benefit of the stock moving to the final June price of $78.17.

The bull call strategy was a hedge against price increases to protect a short position on the stock. As the stock finished at $78.17 it did indeed close higher than the position one year earlier. In this case the call option would be exercised and the profit is $2.91 after the deduction of the call premium. However the short call will also be exercised and this will produce a loss of $1.27 net of the received premium. The net position is a profit of $1.64 plus the benefit of having the $3.77 premium received one year earlier.

Table 3. Profit Table on the Bull Call.

Buy call	
Share Price	78.17
Buy call	70.23
Less premium paid	-5.03
Profit	2.91
Sell Call	
share price	-78.17
Sell put	73.13
Less premium received	3.77
Profit	-1.27
Net profit	1.64

This looks like a successful result. What other strategies could have brought a better return? If the position was unhedged then there would have been a loss of $7.94 ($78.17 less $70.23) so having a profit of $1.64 is a vast improvement. Having a simple long call would have resulted in a higher profit of $2.91. This would increase if the call purchase was made which are strongly out of the money as the premiums would be lower.

To conclude this research has looked at different options strategies to both hedge against a fall and rise in the value of UPS Inc. shares. It has seen that the options chosen have had different results due to the final share price being higher than one year ago. Hence a bullish strategy was more appropriate. But even the put strategy had established a hedge against a fall in the stock price at a relatively small cost: which if the stock had indeed fallen would have turned out to have been the right strategy.

Variants of hedging price risk can be applied to other markets such as raw materials and energy. [7]

REFERENCES

1. Hull, John C. Fundamentals of Futures and Options Markets. - Pearson. 2011.

2. Буренин, А.Н. Форварды, фьючерсы, опционы, экзотические и погодные производные. – М.: Научно-техническое общество им. академика С.И. Вавилова, 2008.

3. Галанов В.А. Производные инструменты срочного рынка: фьючеры, опционы, свопы: учебник – М.: Финансы и статистика, 2002.

Jordan, Lenny. Options, The plain and Simple Guide to Successful Strategies. - Prentice Hill. 2011.

4. Crouhy, M., Galai, D., Mark, R. The Essentials of Risk Management. - MaGraw Hill. 2006.

5. Elton, E., Gruber, M., Brown, S., Goetzmann, W. Modern Portfolio Theory and Investment Analysis,- Wiley. 2011.

7. Анисимова Ю.А. Конструирование финансовых продуктов хеджирования рисков на рынке электрической энергии // Вектор науки ТГУ: Серия: Экономика и управление. 2012. № 4. С. 9-14.

THE HEDGING STRATEGY ON THE VOLATILITY OF STOCK PRICES FOR THE COMPANY UNITED PARCEL SERVICES INC

M. Johnson, Finance Director
Gulf Agency Company Ltd (GAC Ltd), United Kingdom

Annotation: In the paper, such financial instruments as options and futures. The structure of the options and how they can be used by investors for speculation and hedging. The research strategy of hedging against fluctuations in the stock United Parcel Services Inc (UPS Inc). This assignment will discuss and develop strategies for hedging an investment in the shares of company UPS Inc. This paper is organized as follows: the first part of the assignment will discuss strategies based on information available in June 2011; the second part will analyse the results of these strategies one year later in June 2012. The assignment will start with an introduction to options; present a discussion on how they are priced and how options can be used by investors for speculating and hedging.

Keywords: Options, futures, puts, calls, strategies.

УДК 336.647.2

ПРОБЛЕМЫ ФОРМИРОВАНИЯ КАПИТАЛА ФИНАНСОВО-ПРОМЫШЛЕННЫХ ГРУПП В УСЛОВИЯХ ГЛОБАЛИЗАЦИИ

А.В. Севастьянов, кандидат экономических наук, доцент кафедры «Учет и финансы»,
докторант Самарского государственного экономического университета
О.В. Гуренкова, кандидат экономических наук, доцент кафедры «Теория и практика хозяйствования»
Филиал Самарского государственного экономического университета в Тольятти, Тольятти (Россия)

Аннотация: В условиях глобализации современной экономики особенно остро назревает необходимость повышения капитализации финансово-промышленных групп за счет увеличения собственного капитала их подразделений, что требует всестороннего переосмысления основ осуществления первоначального публичного предложения акций и разработки обеспечения для эффективной реализации данного процесса российскими финансово-промышленными группами.

Ключевые слова: мировой финансовый рынок, первичное размещение акций, финансово-промышленная группа, финансовые ресурсы, самофинансирование.

Инновационный социально ориентированный тип развития, к которому должна перейти российская экономика согласно Концепции долгосрочного социально-экономического развития Российской Федерации на период до 2020 г., невозможен без активизации процессов эффективного межотраслевого перераспределения