FINANCIAL MARKETS

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UDC336.763.1

THE PERSPECTIVE OF DEVELOPING DYNAMIC HEDGING ON THE RUSSIAN FORWARD MARKET

ABSTRACT. The article discusses current trends in advancing the domestic market of exchange-traded derivatives, as well as opportunities and problems of developing hedging in the Russian economy real sector. The uprise and large-scale development of the derivatives market is necessary to protect entrepreneurs from financial risks caused by various internal and external factors. The Russian market for Exchange-traded derivatives is highly competitive, according to a number of characteristics it outperforms the futures markets of developed and developing countries, leading in terms of the intensity level growth in the Asia-Pacific region. Despite this, speculators remain the key players in the domestic futures market for two decades and there hasn't been a high demand for hedging formed yet. The article deals with major challenges of dynamic hedging development in our country. Firstly, the influence of participants, including the trade organizers, on the intensity of trade in futures contracts and on motivation of risk managers. In particular, approximately 98% of the Russian derivatives market turnover accounts for financial derivatives segment, while the main demand of hedgers focuses on commodity derivatives market. Secondly, the mechanism of the futures market operation and the impact of the basic risk on the effectiveness of hedging the investment portfolio. Moreover, the article raises the issues of the ownership structure influence on the company's capital in selecting risk management techniques and tools for structuring cash flows.

KEY WORDS. Hedge, financial derivatives, contango, backwardation, basis.

The turnover of the world market of stock exchange derivatives increased in 2011, by 11.4%, which is below the average rates of growth in this segment of the financial market over the last decade. At the same time Russian derivatives market of the Moscow stock exchange (FORTS), according to the Association of the Futures Industry (FIA), became one of the most dynamically developing in the world. The volume of trading in futures and options market FORTS in 2011 grew by 73.5 per cent compared with the previous year and amounted to 1,098 billion contracts, taking the third place according to this index among 81 trading floors. Considering the total number of derivatives market indexes the Moscow stock exchange occupies the 6th place in the world [1]. The share of Russia in the world trade exchange-traded derivatives amounted to 4.3%, compared with 2.6% in 2010. The main trends of developing the global derivatives market remain unchanged: the main share of turnover still accounts for index contracts trading and contracts on individual stocks. The leading position in terms of liquidity and trading volumes in FORTS is, the same as in the previous year, the RTS index futures contract, the turnover of which increased by 68,2% and reached 377,8 million contracts [2]. Futures on individual stocks (355,3 million contracts) were second in terms of their trading activity in FORTS. They were the first in TOP — 20 among their segment derivatives (on the second place in EUREX with the index of 174.3 mln contracts) [1]. The group of leaders in the world derivatives market also included futures on gold, Brent crude oil, the US dollar and the Euro traded in FORTS.

A statistical analysis of developing the world market of stock exchange derivatives showed that contracts with a small amount of underlying assets are top performers in terms of the turnover, as they are available for small speculators with a small amount of capital. It should also be noted that the practice of measuring the turnover of derivatives markets in the contracts on the one hand, is a convenient accounting tool, and on the other — can distort real facts concerning volumes of trade. Fixed-term contracts of the Russian market are distinguished by small volumes of underlying assets (a trend, typical for developing markets) and therefore the formation of the contracts turnover is more rapid in comparison with American and Western European markets, which use large lots of the underlying asset in the formation of contracts, to prevent retail speculation among other things. In addition, the structure of the market index derivatives is gradually changing. Tools with high speculative opportunities - structural options (ETF) and derivatives on the volatility index [3] demonstrate the highest turnover growth rate. Thus, it can be assumed that speculators are the main participants in the derivatives market.

Moreover, in the last 2-3 years there have been a number of different publications about the necessity of hedging transactions in the real sector of the Russian economy, the authors of which agree, that the mass demand for hedging has not been formed yet [4], [5], [6]. Further we will consider possible reasons of such situation.

There is no doubt that the emergence of a derivatives market was inspired by the need to protect the traders and agricultural producers from financial risks, caused by various internal and external factors inherent in the operating activities of the medieval entrepreneur. In the early twentieth century. J. M. Keynes, and later J. Hicks put forward and proved the statement that the derivatives market introduced an element of stability in the development of the economy and such market existed, because the participants of economic relations tried to avoid the uncertainty of their financial position in future.

At the same time J. Hicks pointed out that «every market, where deals are concluded for a term, is always characterized by a speculative element» [7] and trading is rarely performed exclusively by hedgers. In addition to this X. Boking and followers of the portfolio hedging theory show that hedgers can not only seek to reduce the risk, but also to increase their income in case of a favorable market situation. A modern hedger is no longer passive and non-dynamic, he is ready to act as a speculator or arbitrageur.

The development of the derivatives market started with the use of commodity derivatives in the operations, but today financial derivatives account for almost 90% of the world's turnover in this market (in our country this index is about 98%) [1]. The events of 2008-2009 clearly demonstrated several important economic trends, which in recent years haven't been seriously considered by speculators, who focused their strategy on volatility of financial market conditions. The demand for commodity assets, which are the basis of developing any well-established economy, decreases slightly or remains at the same level during the crisis, whereas the interest in financial assets is getting significantly low. There has been a growing speculative demand for commodity derivatives in the derivatives market, migrating from a segment of financial derivatiyes contracts. Since the «balance» of speculative demand within a period of crisis in the financial markets is easily disturbed, there is a «bear» trend. As a result, in the period of crisis the liquidity of financial derivatives decreases, the stock exchange quotations fall. Derivative instruments for goods are not practically affected in the same way, since the demand in this segment of the derivatives market is formed by a great number of hedgers, leading their business in compliance with the underlying asset economic sectors.

Chinese, Indian, Brazilian markets, where there is a traditionally high demand for commodity and agricultural products derivatives, demonstrated such dynamics in trading most clearly [1]. In Russia the volumes of futures and options trades for the period 2008-2011, grew by more than 4.5 times. However, the share of the commodity derivatives market amounted to slightly more than 2% of the total volume of trading in the derivatives market, compared with almost 12% on average in the world market of derivatives [1]. This situation in the Russian derivatives market is due to a number of objective circumstances, related to the formation of a market economy and the major financial institutions, starting from 1989.

The Russian organized market was formed only in the segment of financial assets, in this respect, during the whole period there was a constant interaction and mutually positive impact of the underlying asset market and the derivatives markets on financial instruments. As a result, the Russian derivatives market is among the top ten leaders of the world derivatives market's largest trading floors according to many criteria. However, originally in developed countries the market of commodity derivatives was established, it contributed to the stable development of a real economic sector in these states.

As is well known, the presence of the dynamic commodity and stock markets is a necessary condition for the formation of the developed derivatives market. With regard to the exchange trade of goods, in our country it is practically absent. Although today there are about 50 spot trading facilities for dealing with various agricultural and industrial goods, officially registered in Russia, their share in the total volume of wholesale trade amounts to 2% [4].Repeated attempts to organize regular exchange commodity contracts with a sufficient level of liquidity were unsuccessful. The absence of the underlying asset market makes an impact on the essential conditions of the exchange fixed-term contracts for goods, recorded in the specifications of the largest trading facility in the futures and options market of our country.

The main participants of the Russian derivatives market since its advent to the present time are domestic small scale traders and financial investors who are able to maximize flexibility in shaping their investment strategies and show interest in new instruments. The real sector of the national economy enterprises are practically not present in the Russian exchange market of derivative instruments, preferring to handle risks by introducing protection clauses and assuming risks. There hasn't been any massive need for hedging in the past 15 years of active futures contracts promotion in the Russian financial market. Such situation can be explained by misunderstanding of risk management mechanisms through hedging and distrust of unfamiliar instruments. Apparently, the trade organizers and financial regulators will have to invest much money and make a lot of efforts to promote fixed-term contracts for goods in the real economy sector.

Currently the Moscow stock exchange is implementing a regional project to promote hedging operations. Considering the past experience related to previous events of this kind and the interests of the national economy real sector representatives, the Moscow stock exchange specialists and a number of financial - brokerage companies conduct seminars devoted to « Modern methods of currency risks hedging» in different Russian cities. These target activities were chosen by the trading organizer, because Russian companies carry out a great number of external trade operations annually and incur considerable losses while facing currency risks. Many corporations are ready to overcome conservatism and start dealing with fixed –term contracts, which are not typical for their business, but they need consultations on many specific aspects of the market operation, beginning from the terminology and finishing with business and tax accounting. In General, professional participants of the financial market give optimistic forecasts of developing hedging operations with foreign currency instruments.

Speaking about hedging portfolio investors risks, which are generated by the fluctuations of the main financial indicators of macroeconomic and corporate levels, such forecasts can hardly be convincing. A typical hedging operation, which involves purchasing (selling) the underlying asset with the simultaneous sale (purchase) of futures contracts on preferably the same asset in the sufficient amount to cover the basic position and simultaneously close the positions in the spot and futures markets on the date, specifically stated by the investor, is in itself risky for the hedger.

Let's trace the dynamics of both spot and futures prices for the shares of Gazprom OJSC from the 14th of July 2011 to March 14, 2012 (Fig. 1). It is the term of the futures contract for common shares of Gazprom OJSC (code GAZR-3.12) with the amount of 100 ordinary shares and the execution on the last day of the contract circulation (March 14, 2012). In addition, the volatility of spot and futures prices of the shares (the situation is similar for other assets) is very high, Fig. 1 and 2 show that the basic risk of this tool is also very high (80,14%). The correlation of futures and spot prices of one and the same underlying asset is only 0.7. The basis (the difference between the futures and spot prices) is mainly positive, i.e. there is a situation of contango on the stock market. However, the market moves 16 times for the period of the contract circulation from the contango position to backwordation and vice versa. Backwordation is observed only within one trading day, and then the market returns to the previous condition. The most significant negative deviations of the basis were followed on August 10 and 12 December 2011 (Fig. 2).

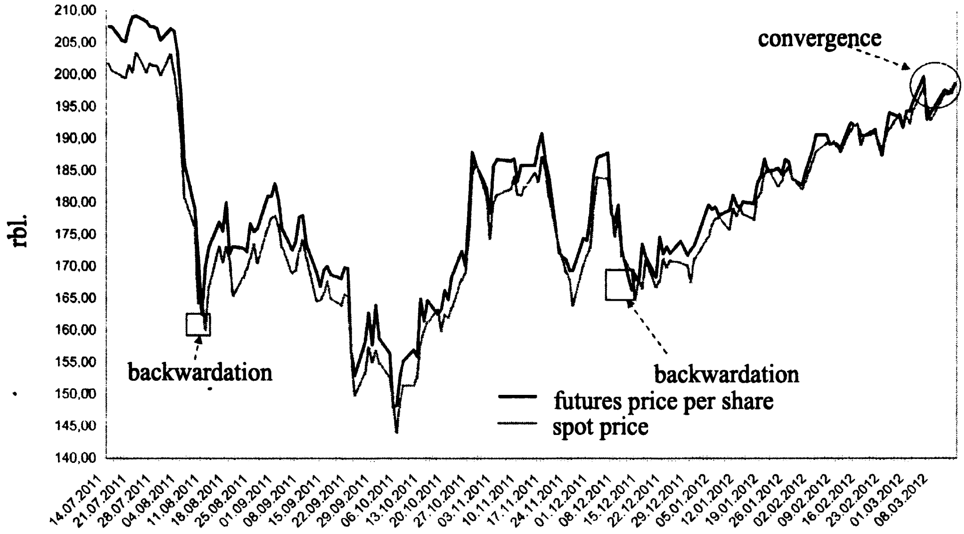

Fig. 1. Dynamics of both spot and futures prices of the Gazprom OJSC shares

The source: based on the data of [2].

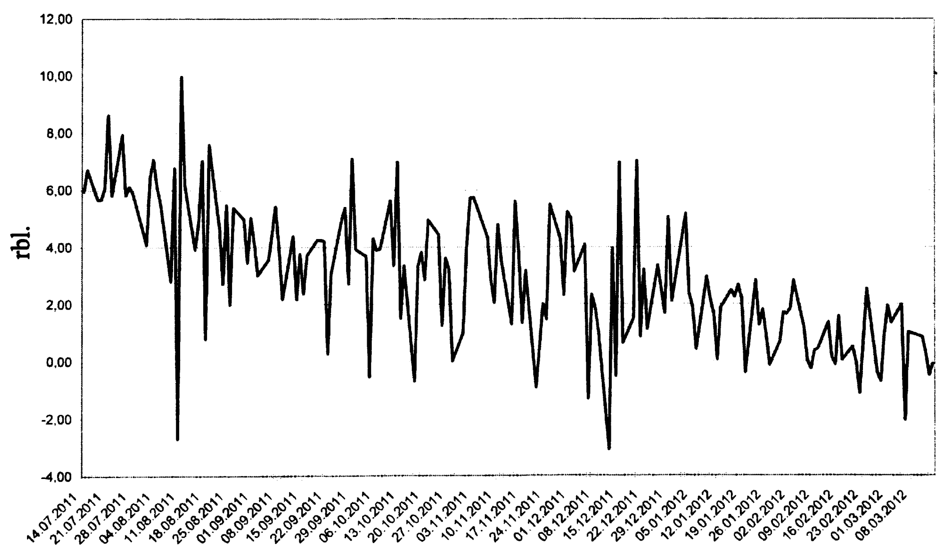

Fig. 2. Dynamics of the basis for Gazprom OJSC shares during the futures contract circulation

The source: based on the data of [2].

It should also be noted that on the expiration date (March 14, 2012) at the trade closing the convergence phenomenon was not observed, because the basis was not zero, and amounted to 0.07 rubles. Theoretically there was a possibility of performing an arbitration transaction. However, the transaction costs and taxes narrow the arbitraging limits, and in practice it is not possible to perform such operation at the settlement price on the execution date. However, this fact and backwordation observed on the 13th and 14^{th} of March in 2012 demonstrated high activity of speculators-scalpers. In addition, trading in futures was notable for its weak activity during the first months of the contract circulation (in the first two weeks there was not a single transaction), the liquidity was acceptable only in the beginning of December, 2011. i.e., approximately three months before the date of expiration.

This is typical for the market, where speculators are the main participants.

Risk managers today try to structure cash flows, so that in case of a negative market situation they can get compensation for losses on core operations, and in case of a favorable market situation - maximize operating profit and in addition, fix a speculative profit in the financial market. At the rise of hedging only options provided such opportunity, which in contrast with futures didn't fully deprive the hedger of some additional profit in case of a profitable market situation. However, in many cases common options are very expensive, that's why various strategies have been developed, allowing to achieve the desired result and simultaneously decrease expenses for holding an option. Well- established standard strategies are fixed by issuing new financial instruments, so-called hybrid financial instruments. Some time later structured financial products appear in over-the counter market.

The market participants needs in the formation of a certain cash flow and the availability of the appropriate offer in the OTC market stimulate the exchange trade organizers to introduce standard structural products (for example, popular all over the world Exchange Traded Funds - ETF) into circulation. They provide more opportunities to make profit, first of all for the speculators so far.

The ownership structure of the company's capital, interrelations of the subsidiary and parent companies play an important role in developing transactions hedging. In most cases, a parent company is responsible for choosing the main directions of operations, including methods of risk management. Periods, when the state receives a substantial control over the companies activity, which among other things include major principal shareholding, are characterized by reducing the turnover and stagnation of the global derivatives market, because risk management methods lose the market character. In the period of crisis in 2008, many countries started importing a state capitalism model from Asia particularly intensively. Today the state corporations business all over the world is more profitable than that of private firms by 12% [8].

The state gradual extension through acquisitions, through expanding state-owned companies assets certainly affects the stock market, and not only through the direct formation of the corporate securities secondary market, but also through an indirect impact on the futures market by selecting risk management methods. Despite the official orientation on the state presence only in the strategic sectors of the Russian economy, the control is established over many enterprises, which do not belong to such industries.

For example, principal shareholding of Gazprom OJSC automatically gives the state a control over several largest energy companies (incl. Mosenergo OJSC), United machine-building plants, a Himmash Group, several TV companies and radio stations [9]. The state corporations are distinguished by a complex organizational and management structure and not transparent financial flows, which can't be thoroughly controlled both externally and internally.

There is no need to prove the importance of hedging in modern conditions, and there are grounds to expect hedging transactions turnover growth in the nearest future. However, it is difficult to predict who will be the market participants and what instruments they will choose to achieve this goal.

REFERENCES

1. URL: http: //www.fow.com
2. URL: https:// www.rts.micex.ru
3. Kandinskaya O. The world market of futures and options: what was 2011 memorable for// Journal of exchange trade F&O. 2012. №5. p. 32-39.
4. Emelyanov D. Waiting for hedgers // Journal of exchange trade F&O. 2012. № 3. p. 23-25.
5. Emelyanov D. Meeting hedgers // Journal of exchange trade F&O. 2012. № 7. p. 16-19.
6. Sedunov A. Crisis doesn't impact goods // the Journal of exchange trade F&O. 2010. № 5. P. 26-33.
7. Hicks, J. R. Value and capital: translation from English,. M.: Progress, 1993. 488p.
8. Dashkovsky I.Business.gov // RBC. 2012. June. p. 28-32.
9. Losev M. All around the kolkhoz // RBC. 2012. June. p. 34-40.