International Journal of Engineering and Advanced Technology (IJEAT)
ISSN: 2249-8958 (Online), Volume-8 Issue-6, August 2019

Ukrainian World Exchange Market of Oilseeds: A Research of Chlanges for Growth

Nadia P. Reznik, Sandeep Kumar Gupta, Olena M. Sakovska, Anatoliy D. Ostapchuk, Ruslana V. Levkina

Abstract--- ***The topic of the paper was selected because agricultural products occupy approximately 70% of stock exchange trade in Ukraine. 1% of all world oilseeds on the stock market belong to Ukrainian agricultural activity. The paper discusses the perspectives of Ukraine to be not only top-country of oilseeds product exporter but a real player of the world exchange market of oilseeds. There is information about current conditions on the oilseeds market in Ukraine, its dynamics during the last couple of years and perspectives for the future. Favourable conditions and big yield area allow Ukraine to develop a branch of oilseeds production not only with food aims but produce commodities of oilseeds processing. Introduction into the trade by derivative offers useful perspectives for oilseeds trade. Lack of experience of domestic traders is no problem to use stock exchange trading if to base on the international example of different countries and orient to lossless trade by soybeans contracts and other similar activity***

Keywords: Oilseeds, Sunflower, Soybean, Rape, Stock Exchange, Derivatives, Futures.

I INTRODUCTION

Nowadays, Ukraine has little influence on the integration process and the international division of labour that takes place in the world, for a long time remaining in the side of the main economic processes. Being in the very heart of Europe, Ukraine is lagging behind the development of world commodity exchanges that are actively operating in neighbouring countries. Despite the political, economic conditions and conditions that are formed not only by world exchanges but also by the world economy for each state, Ukraine needs to find a personal way to a market economy that will allow to accelerate structural transformations, improve the scope of international trade in services and goods, and the most important thing is to create a favourable micro and macro environment for the development of commodity exchanges, as Ukraine is a food-oriented state. The development and functioning of the stock commodity market will enable producers to hedge price risks and analyze the situation on the external and internal stock market. Oilseeds, namely: soybean, rape, sunflower and products of its processing, represent essential export goods of our country, which provides significant inflows of currency due to sales in world markets.

Taking into account the volatile economic situation in Ukraine and the various unexpected movements of foreign-exchange in recent years, traders and farmers need to be able to hedge their price risks using derivatives.

The topic is relevant because growing, processing and production of oilseeds in Ukraine are increasing annually. Also, this type of products is one of the main components of agricultural production in Ukraine. It should note that the rates of development of the world economy are active and commodity and stock markets in most developed countries not only exist but operate side by side.

II. THEORETICAL AND METHODOLOGICAL BACKGROUNDS

The oilseeds business and everything connected with it is a reasonably popular topic among academics. Particular attention had paid to the studied oilseeds business tendencies, such as A. Faizov [1], O. Maslak [2,3], N. Kuzminskaya [4], V. Tkachuk [5]. In their works, the main aspects of the current state and prospects of the market for oilseeds and the oilseeds industry, in general investigation. Special attention had paid to the study of world trends in the production and processing of oilseeds. Given tribute to the amount of research carried out in this area, it should note that most of them do not focus on the effective management of pricing. A few scientists are exploring the prospects for the oilseeds industry as a whole.

Issues of production and development of oilseeds, ways of increasing the efficiency and competitiveness of oilseeds attract the attention of such scientists as O. Andrienko [6], I. Tavlyi [7], T. Mirzoeva [8] and other.

Revised Manuscript Received on August 30, 2019.

* Correspondence Author
Nadia P. Reznik*, Professor, National University of Life and Environment Science of Ukraine, Ukraine.
(email: nadya-reznik@ukr.net)
Sandeep Kumar Gupta, Professor, Sharda University, Greater Noida, India.
(email: skguptabhu@gmail.com)
Olena M. Sakovska, Associate Professor, Uman National University of Horticulture, Uman, Ukraine.
(email: sakovska_lena@ukr.net)
Anatoliy D. Ostapchuk, Associate Professor, National University of Life and Environment Sciences of Ukraine, Ukraine.
(email: aostapchuk@ukr.net)
Ruslana V. Levkina, Associate Professor, Kharkiv Petro Vasylenko National Technical University of Agriculture, Ukraine.
(email: levkina@3g.ua)

However, the current conditions require further research in the context of innovative trends in the production of oilseeds.

A. Popescu [9] conducted a study on the status of the oilseeds market in Romania, considering the prospect of enlargement to other European Union countries. Her work is quite evident for Ukraine, which has similar climatic conditions and strives to integrate into the European Union. Many foreign scientists have considered oilseed crops and their development in the context of sustainable development. In this area, one must pay attention to the works of Muhammad A. Farooq [10], Abdullah A. Jaradat [11] and others.

Thus, the study of resource potential and the status of the stock market of oilseeds is a very topical issue, especially for Ukraine, where the cultivation, processing and production of oilseeds grow annually.

III. RESEARCH FINDINGS

Development of Resource Potential of Oilseeds Production in Ukraine

The most profitable crops in the field of plant growth are oilseeds crops. The average profitability of these crops is 50%. According to the results of 2017/18, the level of profitability of cultivation in the main oilseeds was as follows:

- sunflower – 60%;
- soybeans – more than 50%;
- rape – 45%.

Large transitional stocks and high yields in Argentina, Brazil and the United States have not affected the situation on the world oilseeds market. Over the past few months, the oilseeds market has been dipping substantially due to the sharp increase in yields in Argentina, with an estimated 54 million tones and 56 million tones of gross aggregate. A few weeks later, it became known that Brazil's yield was also quite high than expected and amounted to 111 million tons.

The domestic market of oilseeds in Ukraine is experiencing difficult times. First, Ukrainians have reduced the use of vegetable oils in their diet, and another reason is the decline in the consumption of by-products (oil meal and press cake) due to the reduction in cattle population. Accordingly, an imbalance of prices for the products of processing is emerging. For today, the market of sellers, agrarians dictates the domestic price, in particular, for sunflower seeds and products for its processing, due to the incomplete loading of its capacity by processing enterprises. The potential of processing enterprises is higher than the supply of sunflower seeds within the state. Even taking into account, the fact that the process of sunflower seeds processing in Ukraine is only gaining momentum every year (in 2017 the growth rate was 17%), the final stocks of sunflower remain at high levels. At the beginning of spring 2017, the stock of sunflower in the country amounted to 5.4 million tons (46% more than in the same period last year). An increase in sown area under sunflower seeds by 17% in the previous season and favourable weather conditions with a sufficient level of soil moisture during sowing contributed to an increase in stocks and record crop yields in the previous season.

The new season is expected to reduce sown areas under sunflower seeds to the level of the previous season. The yield of sunflower seeds is expected to reach about 11 million tons (Fig. 1).

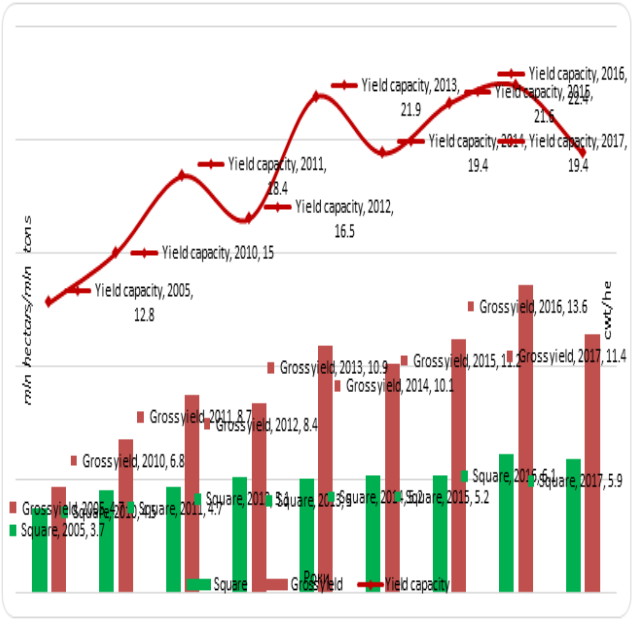

Fig. 1. Dynamics of sunflower growing in Ukraine (2005-2017)

The general volumes of sunflower growing have concentrated in agrarian enterprises. So, agrarian formations with the farm enterprises collected 85% of the total yield in the previous season. The rest of the harvest was growing by the households.

Our country uses the volume of sunflower yield for oil production, which has exported on the world market. The accumulation of sunflower seed, Ukraine has the potential to increase the production of sunflower oil, and for a long time, is situated in the first place as an exporter of this product. It is necessary to realize that the oilseeds and heavy industry are quite attractive for investments, while the volumes of sales on the international commodity market steadily increase (Fig. 2).

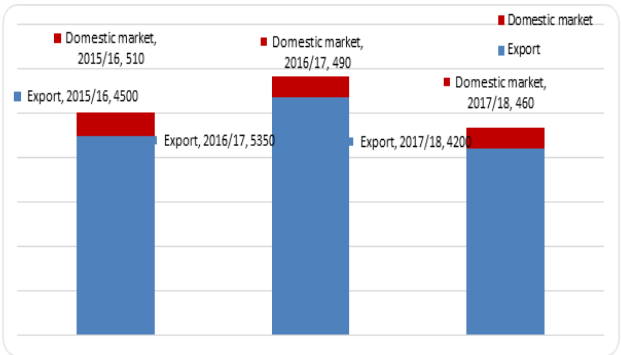

Fig. 2. Sunflower oil dynamics in Ukraine (2015-2018, 000 in tones).

In 2018/2019 Ukraine expects a decrease in the production of sunflower oil, and without that, Ukrainian producers continue to expand the geography of the product sales. Sunflower oil produced by the country is widely popular in such countries as India, Iran, China and E.U. countries (the Netherlands, Italy and Spain).

Soybeans today remain in the mainstream of Ukrainian agribusiness due to stable demand in the international market and relatively high sales prices. Ukraine has managed to enter a fast-growing international market and take on the position of a reliable supplier, due to the growth of demand from major Ukrainian soybean importers: EU, Canada, Japan, Mexico, Egypt, Turkey.

According to experts from the Ministry of Agriculture of the USA, from an investment point of view, the market for soy products is one of the most promising. Over the last four years, only one soy oil production has grown by 24%, and trade in soybeans is increasing year by year to reach record levels.

As a consequence of the above, the forecasts of experts on rape and soy yields this year are more optimistic, since, contrary to early cereals, the weather and climate conditions for these oilseeds are more favourable than anticipated compared with the previous years (Table 1).

Table 1

World production of oilseeds crops 2014-2018, this in tones.

Countries	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2017/2018 till 2014/ 2015 (%)
USA	116,03	115,88	126,94	131,03	112,93
Brazil	100,15	99,02	117,59	123,31	123,13
Argentina	66,31	63,1	60,16	42,46	64,03
China	57,66	54,45	56,53	60,42	104,79
India	32,28	29,37	37,26	34,06	105,51
Others	166,48	162,87	175,76	182,34	109,53
Total (world)	538,91	524,69	574,23	573,63	106,44

As of September, 2018 Ukrainian agrarians, according to the press service of the Ministry of Agrarian Policy of Ukraine, collected 2.7 million tons of rape from the area of 1.0 million hectares, while the average crop yield was 26.1 cwt/he and 225 thousand tons of soybeans from 92 thousand hectares (5% of the total area) at a yield level of 24.5 cwt per hectare.

According to the World Agricultural Production periodical report of August 18, 2018, the growth of soybean production in Ukraine is projected to be about 4.2 million tons in the same period last year. Concerning rape, it is a 23% increase, as opposed to a similar figure of 2017 (Fig. 3).

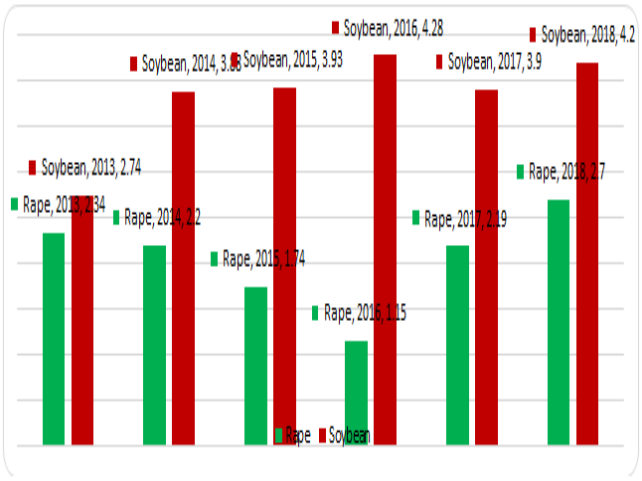

Fig. 3. Dynamics of growing of rape and soybeans in Ukraine (2013-2018), mln. Tonnes.

By inertia, the bulk of soybeans and rape, as in previous years, will be exported. At the same time, the share of these types of crops entering the industrial processing is gradually increasing in recent years.

Most Ukrainian soybeans and rape had exported to other countries, but in recent years Ukrainian producers gradually increase the share of products subject to the processing process. This is one of the positive trends of this year and of the previous marketing years, which is significant for the Ukrainian agrarian sector of the economy in the context of the transition from a quantitative raw model of its development paradigm to a qualitatively new level with the formation of appropriate drivers of value-added growth and export diversification.

During the entire period of 2017, processing enterprises processed 2,765.5 thousand tons of rapeseed and colza seeds, while during the first half of 2018 – 1986.3 thousand tons. At the same time, last year, only 77.9 thousand tons were processed, and in the six months of 2018 – 96.1 thousand tons of both types of crops. However, unfortunately, the leading and most of oilseed crops is still largely preserved and subsequently directed to exports to other states, and not to industrial processing.

Introduction of Trade by Commodity Derivatives in Ukraine

Over the years, stock exchanges have evolved. Barometers of economies into regulators. Instead become the environment in which the average price of a particular type of products has formed, which have further oriented to market players. The product producer and consumer on the stock market have the opportunity to hedge the price of their products and protect themselves from significant price fluctuations. Futures and options trading, the object of which is not the product itself, but only the right to it, has turned stock exchanges into powerful financial institutions, and close cooperation of stock exchanges with banks contributes to the stabilization of the financial and banking system.

The process of introducing stock trading in agrarian products in America has made it possible to develop a mechanism for protection of the producer and consumer of these niche crops and its products from sharp price fluctuations. The Ukrainian stock market began to emerge from the first years of independence, which was directly related to the transition from planning and distribution economy to a market economy. In early 1992, Ukraine numbered more than 70 commodity exchanges, whose turnover was about 10 million hryvnias.

Due to the enactment of the Law of February 28, 1992 "On Taxation of Income of Enterprises and Organizations", it was a sharp decrease in the volume of exchange transactions and a decrease in the number of functioning exchanges. Following this Law, the amount of income tax on mediation (from trade by shares and stock exchange activity) was 75%. The reduction of trade in the stock market has also fueled by an imperfect legislative framework and several factors that negatively affected the relationships in the areas of production and sales. Most Ukrainian commodity stock exchanges reoriented on real estate or auto trade.

At the same time, the development of the stock market of agricultural products has closely linked to the fact that immediately after Ukraine became an independent state; the government saw the need to develop a food security system. Provided that if that meant that our country was potentially able to be a highly competitive agricultural producer for export, using the opportunities offered by international trade and able to meet the needs of the population simultaneously, all would be balanced (Table 2).

Table 2
Commodity market of oilseeds crops 2014-2018, mln. tones

Type of activity	2014/2015	2015/2016	2016/2017	2017/2018	2017/2018 till 2014/2015 (%)
General production	538,9	524,7	574,2	573,6	106,44
rape	71,3	69,8	71,3	74,6	104,63
soybeans	320,0	315,6	348,1	336,8	105,25
sunflower	39,2	40,5	48,0	47,5	121,17
Export	147,2	153,3	170,4	177,3	120,45
Processing	440,3	445,9	469,5	483,2	109,74
Final stocks	94,7	94,5	110,9	110,2	116,37
Production of vegetable oils	177,2	176,8	189,2	197,2	111,29
palm	61,8	58,9	65,3	69,6	112,62
soybeans	49,3	51,5	53,7	54,8	111,16
sunflower	15,0	15,4	18,2	18,4	122,67
colza	27,5	27,8	28,2	28,4	103,27

However, the Ukrainian government at the time has limited the level of profitability of exports to keep low consumer prices for agricultural products. It happened at a time when the share of food expenditure in the average budget of the Ukrainian family reached 78% (1995), compared with 35% (1990). The main instrument used by the authorities was a restrictive trading policy for oilseeds and grain, aimed at manipulating supply and price levels. As a result of such an intervention, the price of products was kept low, and the Ukrainian economy suffered heavy losses.

The main tools for food security policy in Ukraine were:

Government Procurement;subsidies;manipulating prices and trade;export quotas;state control over assets and enterprises of the agrarian sector.

In order to activate the Ukrainian stock market of agrarian products, the Ukrainian Agrarian Stock Exchange decided to develop a concept for the organization of the agricultural stock market. The model of the stock market of agrarian products has presented as an interconnected system of government, stock exchanges and other structures and subjects of the agrarian market. The basis of the model was the Ministry of Agriculture and Food, the Ukrainian Agrarian Stock Exchange, regional stock exchanges (agrarian sections) and trading houses (district, inter-district, city).

The developed structure (model) of the organization of the system provided:

Interconnection of stock exchanges, which operate in the agrarian sector through the exchange by information and coordination of trading sessions in real-time taking into account regional features as well as specialization of stock exchanges;development of a guarantee for commodity and the financial mechanism that would stimulate the subjects of the agrarian market to conduct trading directly in rural areas using rules that would be defined by trading houses;

Participation of state in the process of establishing, functioning and development of the stock exchange market as a guarantor of legality through the structural units of the Ministry of Agriculture and Food.

Under this model, the Ministry of Agrarian Policy of Ukraine was supposed to carry out state policy through the stock exchange system, controlling compliance with legislative acts; to keep replenishing and using state reserves of raw materials and agrarian products; to promote the process of modernization of production and to carry out wholesale trade in agrarian products and raw materials; to carry out commodity and financial interventions in order to regulate prices and other conditions in the Ukrainian agrarian market; to provide guarantees on timely execution of time agreements concluded in the stock exchange system; analyze and forecast the situation on the domestic market of agrarian products.

The Ukrainian Agrarian Stock Exchange was liable for:

- Development and implementation of certified stock exchanges.
- Organising bids with various derivatives method (forward, spot, futures contracts) for agricultural products.
- Maintenance and processing of statistical information.
- Creation of a mechanism for control of competitive prices.

Trading houses should collect information about the real state of local (district, inter-district) agricultural products markets; to provide the potential buyer with documents on the goods, the corresponding certificates of its quality and a document which guarantee the shipment of products;

to coordinate prices and other conditions for the product that would be put up for sale, as well as to create lots for agricultural products; control and organize the process of fulfilling obligations by each of the participants.

Unfortunately, even though the Cabinet approved the Concept for the development of the stock market of Ukrainian agrarian products of Ministers of Ukraine, there were no severe and effective changes in the development of the Ukrainian stock market due to the slow implementation of several economic reforms in rural areas. The main problem was that only the names of agricultural enterprises are changing, the processes of production and organization of work are remaining unchanged. The following factors contributed to the decrease in production volumes at that time:

A sharp increase price of raw-material and technical resources;the high cost of credit resources;

weak state support;restriction of export opportunities; outdated technical base.

Another feature of the then period was the barter system of relationships between collective agricultural enterprises and suppliers of material and technical resources, which, as a rule, were commercial structures. The barter system was ineffective and unprofitable for commodity producers. Managers of collective agrarian enterprises often sold products at doubtful prices, while they practically did not bear responsibility for the results of the operation of farms.

Commercial structures bought a significant proportion of agrarian products, primarily grains, sunflower seeds, rape at a competitive price, which should have formed on the stock market, and at the so-called price of the agreement. Mediators between commodity producers and consumers of agrarian products were not interested in selling goods through the stock exchange system, but found ways to sell it abroad for export, paying for it for imported fuel and lubricants, equipment and plant protection means. For example, in 1998, 2261 thousand tons of sunflower seeds were:

• sold for food purposes in the domestic market (1352 thousand tons);

• sent for export (908.5 thousand tons).

Of the total amount of sunflower seeds sold on various sales channels, only 250.8 thousand tons had sold through the stock market. A similar situation was with the sale of other agricultural products.

Ways of Development and Improvement of Futures Trade in Ukraine on the Example of Soybeans

For many years, the efficient functioning of the stock market has gained vast experience in world practice concerning trade in derivatives for this type of product, which would not hurt the Ukrainian stock market today. In the beginning, the emergence of a futures market in Ukraine falls to the middle of the 1990s in the 21st century. It was then that the Ukrainian stock exchanges made the first introduction of futures contracts for Ukrainian products.

The slowdown in the development of the Ukrainian market of futures was due to several factors: challenging conditions for the establishment of a market economy in Ukraine;lack of necessary infrastructure for futures tradingZA limited number of skilled personnel,inflation, production crisis.

The weakly developed infrastructure of the market of futures contracts in Ukraine impedes the attraction of several companies, enterprises, firms and a wide range of people in the futures trade. Most of the companies operating in Ukraine do not have in its working team of specialists with the required level of knowledge in stock trading and understanding the importance of the futures market.

There is slowly creating a regulatory framework for the development of the stock market in general and futures trading in particular. At present, very little has been done to broadly implement forward contracts with different execution conditions, which is a prerequisite for the introduction of futures contracts. Underdevelopment of commodity-money relations and private property significantly affects the process of introduction and development of the futures market. Soybeans futures are one of the most popular futures on the stock exchange oilseed market among most traders (Table 3).

Table 3

Top-20 of commodity derivatives for agricultural products on world stock exchanges for the period January-June 2017, (transactions)

№	Contract	Quantity of transactions
1	Soybean Meal Futures, Dalian Commodity Exchange	162 877 864
2	Corn Futures, Dalian Commodity Exchange	127 323 949
3	Corn Futures, Chicago Board of Trade	89 876 782
4	Rubber Futures, Shanghai Futures Exchange	89 341 052
5	Rapeseed Meal (RM) Futures, Zhengzhou Commodity Exchange	79 736 545
6	RBD Palm Olein Futures, Dalian Commodity Exchange	68 046 475
7	White Sugar (SR) Futures, Zhengzhou Commodity Exchange	61 073 198
8	Soybean Oil Futures, Dalian Commodity Exchange	57 158 378
9	Soybean Futures, Chicago Board of Trade	54 504 169
10	Corn Starch Futures, Dalian Commodity Exchange	50 433 910
11	Egg Futures, Dalian Commodity Exchange	37 262 376
12	Chicago Soft Red Winter Wheat Futures, Chicago Board of Trade	33 717 805
13	Sugar Futures, ICE Futures U.S.	30 961 148
14	Soybean Oil Futures, Chicago Board of Trade	30 232 316
15	Soybean Futures, Dalian Commodity Exchange	26 324 058
16	Cotton Futures, Zhengzhou Commodity Exchange	26 068 232
17	Soybean Meal Futures, Chicago Board of Trade	25 996 399
18	Rapeseed Oil Futures, Zhengzhou Commodity Exchange	25 994 757
19	Corn Options, Chicago Board of Trade	23 884 970
20	Soybean Options, Chicago Board of Trade	16 980 581

Derivative provides a mechanism for the formation of a competitive price not only for soybeans but also for products of its processing, such as oil meal and oil. For example, vegetable oil prices remain at the same level as the price of unprocessed soybeans in the United States.

The soybean futures market is one of the elements of a long-term business planning mechanism that provides productive profitability for farmers, processors, livestock producers and food producers. So, as Ukraine is among the top 10 soybean countries, the futures contract for this product takes place in the Ukrainian stock market. Five issues need to be investigated by every trader that deals with futures contracts on soybeans:

1. What is soybean futures?
2. The leading producers, exporter and importers of soybean products.
3. Specification of futures for soybean contract.
4. Key indicators are governing soybean futures prices (production, yield, number of area, balances at the beginning of the year, exports and imports of soybeans).
5. Make a fundamental and technical analysis by examining the history of trading on schedules.

A soybean futures contract is a standardized term contract whereby the seller undertakes to transfer soybeans to the buyer's property under the specified terms in the future, and the buyer undertakes to accept this product and pay for it the price specified in the contract.

Soybean futures began trading in 1940. This type of futures is most popular on the following stock exchanges:

CME Exchange / Chicago Board of Trade (CBOT);

on the Globex electronic stock exchange;ICE futures.

On the CME Exchange there are two versions of soybean futures contracts that traders can use:

1. A small contract on soybeans:
─ ticker: H.C.
─ contract size: 1000 bushels
─ tike size (step): 0.125 ($ 1.25)
─ the margin of $ 500
2. The standard contract for soybeans:
─ ticker: Z.S.
─ contract size: 5000 bushels
─ the size of the Teka (step): 0.25 ($ 12.5)
─ margin of $ 2,500.

The following monthly reports can analyze the leading indicators that regulate soybean futures prices (production, yield, number of areas, balances at the start of the year, exports and imports of soybeans):

USDA World Agricultural Supply and Demand Estimates Report;

USDA Crop Production;

USDA Grain Stocks;

USDA Acreage.

Fundamental analysis of trade has also made based on the reports presented above. Technical analysis of trade is made based on charts that are freely available, for example, on such a website as Barchart using, for example, the most straightforward medium flow tool.

In Ukraine today, taking into account the economic situation, it would be more appropriate to use as a base the small size contract traded on CME Exchange. The question arises immediately: "Who will trade this contract?" First of all, there are farmers, traders, processors and other soybean market players who will aim to hedge their products using SWOT futures to manage prices. Evolution of the development of market relations leads to the erosion of differences between types of stock exchanges and the mechanism and nature of its activities. However, the historically formed specialization of specific stock exchanges will continue to take into account the place it occupies in the stock market of the country. Trade by futures prevails over all other stock exchange activities. Stock exchanges cease to be only part of the wholesale trade; its role in wholesale trade tends to reduce. It becomes the centres of futures trading in the broadest sense of the word, that is, price-forming centres, profit centres and such commercial activities, which would allow earning additional profit.

According to current trends in the global economy, it should be expected to further formation of futures trading and the development of its new forms. Based on the development of communication and computerization of all calculations, it should be the concentration of futures trading in the leading financial and credit centres of the country. Stock exchanges already create joint settlement centres and jointly use the latest electronic computing equipment.

Today, the development of the fictitious capital market is based more on the growth of futures trading and its derivatives.

IV. CONCLUSION

An essential condition for the existence of the futures market in the Ukrainian economy is its self-sustainability. Trade by futures should organise so that the received profit covers the expenses of the stock exchange for its holding. It is possible only due to large volumes of stock transactions in the futures market.

In Ukraine, the introduction of futures contracts in the stock exchange turnover involved in many stock exchanges. Currently, futures contracts for grain, currency and commodities have developed. Stock exchanges master the mechanism of futures trading and create the necessary preconditions for the development of the futures market.

The paper offers the introduction of trade derivatives trading in Ukraine. Over the years, stock exchanges have evolved. Barometers of economies, its regulators, became the environment in which the average price of a particular type of products has formed, which has further oriented to all market players. The product producer and consumer on the stock market have the opportunity to hedge the price of their products and protect themselves from significant price fluctuations. Futures and options trading, the object of which is not the product itself, but only the right to it, has turned stock exchanges into powerful financial institutions, and close cooperation stock exchanges with banks that contribute to the stabilization of the financial and banking system.

Offer to improve the process of stock exchange trade in agricultural products in ukraine will enable stabilization of agricultural production and develop a mechanism for protecting commodity producers and consumers of these products from a sharp fluctuation of prices, for example, the introduction of a soybean futures contract.

REFERENCES

1. Faizov A.; Oilseeds and fat complex: problems and factors of development. Agroincom 10-12, 21-29 (2011).
2. Maslak O. New oil records. Proposition 6, 36-40 (2012).
3. Maslak O. Attractiveness of oilseeds. Agribusiness today 22, 10-11 (2015).
4. Kuzminskaya N.; Peculiarities of the functioning of oil and fat branch in Ukraine. The economy of AIC 12, 161-165 (2011).
5. Tkachuk V. Tendencies of development of oilseeds market in Ukraine. Agrarian market and its infrastructure 1-2(43), 87-93 (2014).
6. Andrienko O.; Sunflower is not so awful as seems. Agribusiness today 11, 5-12 (2011).
7. Tavlyi I.; How to turn agrarian company to euro standards? Agribusiness today 8, 51-53 (2015).
8. Mirzoeva T.; Innovative direction of soybean production. Economy, agrarian management, business 181(2), 242-247 (2013).
9. Propescu A.; Research regarding oilseeds crops development in Romania in the E.U. context. Economics of agriculture 1, 129-137 (2012).
10. Muhammad A.; Farooq Breeding oil crops for sustainable production: heavy metal tolerance (2016), https://doi.org/10.1016/B978-0-12-801309-0.00002-1, last accessed 2019/01/15.
11. Abdullah A.; Jaradat Breeding oilseed crops for climate change (2016), https://doi.org/10.1016/B978-0-12-801309-0.00018-5, last accessed 2019/01/15.
12. State statistic service of Ukraine Homepage; http://www.ukrstat.gov.ua, last accessed 2019/01/15.
13. Agrochart Homepage; http// agrochart.com, last accessed 2019/01/15.
14. U.S. Department of agriculture homepage;
15. https://www.usda.gov, last accessed 2019/01/15.
16. Futures Industry Association Homepage; https://fia.org, last accessed 2019/01/15.
17. U.N. Comtrade Homepage; https://comtrade.un.org, last accessed 2019/01/15.