


# “Investment needs assessment of Ukrainian agricultural enterprises”

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## Investment needs assessment of Ukrainian agricultural enterprises

### Abstract

Agricultural enterprises in Ukraine require a considerable investment income. The paper studies the main problems and conditions for investment into agricultural enterprises, the scope and dynamics of their investment provision.

The results of agricultural enterprises activity depend directly on the state of their fixed assets. This is one of the biggest vulnerabilities of agricultural enterprises, which makes it impossible for the economy of Ukraine to demonstrate decent results. Investments should be used primarily for the development of material and technical basis of agricultural enterprises, because the fixed assets always depreciate, the term of their use in many enterprises exceeds 15 years and their number is constantly decreasing.

Investment in technical provision of plant growing is necessary and attractive. Firstly, as a basis of plant growing, grain and oilseeds are always in demand at the domestic and foreign markets. Secondly, the volumes of investments are moderate compared to other investments in agriculture. In the beginning, it is sufficient to invest into the branch on average from 1 to 2 thousand US dollars per 1 hectare. The average payback period of investments is 2-4 years.

Thus, in order to stimulate investments, it is vital to form a qualitatively new policy aimed at increasing investment attractiveness of agricultural enterprises.

**Keywords:** investment activity, foreign direct investments in Ukraine, agricultural enterprises, agriculture.

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### Introduction

The development of agriculture, like of any other branch, requires big investments. The problem is not only in outdated material and technical basis, but also in the pressing need for new technologies to improve the competitiveness of the branch. Agricultural enterprises are experiencing a chronic shortage of technology, on the basis of which modern technologies can be introduced. The majority of the existing agricultural machines are of obsolete designs. Agricultural enterprises have a great need for modern machinery, but have no money to purchase it. The real need for agricultural machinery far exceeds the ability to pay the prices existing at the market. Considering the current paying capacity, the reduction of this gap is only possible through the lowering of prices on agricultural machinery, but it is highly problematic.

The only solution is to increase financial capacity, the level of profitability of agricultural enterprises, conformity of the depreciation policy to the needs of material and technical basis (Vasyliiev, Sitkovska, 2010).

Effective development of the agrarian sector under the market conditions is impossible without intensification of investment activities, substantial increase in the volumes of investments, the choice of the most effective sources of funding.

### Analysis of the recent research and publications.

The study of various aspects of the theory and practice of investment and investment activity was made by many scientists. Libor Krkoska considers that the positive impact of foreign direct investments (FDI) on transition economies has been widely acknowledged. First, FDI is an important source of financing for transition economies, as it helps to cover the current account deficit, fiscal deficit (in case of privatization-related FDI), and supplements inadequate domestic resources to finance both ownership change and capital formation. Second, compared with other financing options FDI also facilitates transfer of technology, know-how and skills, and helps local enterprises to expand into foreign markets (Libor Krkoska).

The agriculture sector is more investor-friendly than most people expect. This is simply because it has been an investment destination for hundreds of years. The futures market grew up within agriculture and many ag stocks can trace their

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history back to a time when shooting at each other with pistols was an acceptable way to settle an argument. The maturity of the ag sector and the diverse means of investing in it, combined with new concerns over worldwide food consumption, make it a compelling option for many investors (Brenton, P., Di Mauro, F. Lücke, M. Empirica, 1999; Beattie).

FAO research shows that much more agricultural investment, including foreign direct investment, is needed to eradicate hunger and poverty and promote rural development. Agricultural investment by domestic and foreign investors can generate a wide range of benefits such as higher productivity, increased food availability, employment creation, poverty reduction, technology transfer and access to capital and markets (Impacts, challenges and opportunities...).

However, the general perception from an investment perspective is that the operating profitability of many agricultural businesses is poor, quite volatile and subject to a range of uncontrollable factors such as commodity prices and weather (Exploring agriculture investment).

S. Hutkevych and O. Zaharchuk note that foreign capital in the form of investments comes primarily into those countries, which have a stable and effective legal framework regarding the regimes to attract and use foreign investment (Hutkevych, Puhachov, Zavadskykh, Zanozovska, 2016; Zakharchuk, 2014).

The problem of investment provision for the development of agriculture and the countryside is extensive; its solution has a national significance and requires consolidation of efforts at all levels and in all spheres of production, society, public authorities and economic management. Solving this problem requires a long time, and, therefore, the development of an appropriate strategy (Kisil, 2014).

According to M. Kisil, M. Kodenska and P. Sabluk, the main causes of investment problems in the agricultural sector are inter-branch imbalances in the economy as a result of disparity in the prices of resources and agricultural products, the absence of compensations, the reduction of state investments into the agricultural production and the influence of other market mechanisms (Kisil, 2014; Kodenska, Nesterchuk, 2011; Sabluk, Kisil, Kodenska, 2005).

According to V. Heraymovych, Y. Lupenko, V. Mesel-Veselyak and I. Fedun, the main factors that hinder the influx of investments in agriculture include inconsistent and flawed investment policy of the state, underdeveloped financial markets, unfavorable conditions for the development of small

businesses in rural areas, low liquidity of investments, low return on capital of agricultural enterprises, the absence of the land market (Lupenko, Kisil, 2010, p. 8; Heraimovych, 2014, p. 76; Lupenko, Mesel-Veselyak, 2012, pp. 183-185).

T. Ratoshnyuk, M. Martynyuk consider investments in agricultural enterprises as risky (Ratoshnyuk, 2013, p. 89), while others (we agree with them) criticize this view (Levchenko, Ohlikh, 2013, p. 286). Most authors note the high level of investment attractiveness of such enterprises; however, there are some opposing views (Vyshnevskaya, Filatova, 2013, p. 30; Vinichenko, 2010, p. 90; Hotra, 2015, p. 120; Lissitsa, 2011, p. 36).

The main factor in the provision of investment into agricultural enterprises is financial provision of this type of economic activity. For example, O. Labenko stresses the importance of providing the investment into agricultural enterprises with financial resources (Labenko, 2008). S. Hutkevych draws attention to a number of factors that affect investment processes in agriculture, in particular, economic and political factors (Hutkevych, 2004). Investment needs of agricultural enterprises are the subject of research of such scholars as P. Haidutsky (2005), M. Denysenko (2003), A. Lissitsa (2011) and others.

However, in spite of the multidimensional nature of research, some issues related to the peculiarities and areas of strengthening and improving the efficiency of investments in the agricultural sector, remain understudied.

**The goal of the article** is to assess the current state of investment into agricultural enterprises and to study the areas of its intensification.

**The main results of the study.** Integration of Ukraine makes it necessary to stimulate production through specialization, concentration and development of international cooperation. A successful and systematic implementation of these tasks will help to ensure that agriculture in Ukraine takes a strong position at the global markets and improves the internal situation in the country.

The main purpose of the development of agricultural enterprises is a steady growth of the living standards of the population. Achieving this goal requires the solution of the food problem by improving the economic efficiency of agricultural production. The problem of the efficiency's growth is crucial for economic development. Strong concerns are raised due to the fact that agriculture lacks uniform organizational and economic principles of management at the macrolevel.

Agriculture plays an important role in the economy of Ukraine. Ukraine has about 43 million hectares of agricultural land, including 32 million hectares of arable land, which is equal to a third of arable land in the EU. Half of the land is black soil – the most productive type of soil, the demand for which is so great that an illegal market of such land has emerged. There are some of the largest agricultural companies of the world operating in Ukraine, sometimes on the area of 500,000 hectares, but 50 per cent of agricultural goods are produced by small farms. Ukraine has become the world's third grain exporter after the US and the EU. In 2014, it produced 64 million tons of grain, which is 2.4 per cent more than in 2013, even without the occupied Crimea (MAPF, 2015). Ukraine has a competitive advantage in the production of grain due to the high soil fertility, low production costs and strategic geographical position; the country's potential is estimated at 100 million tons (Hervé, 2013). Ukraine is also the largest producer and exporter of sunflower, the third world exporter of corn, the fourth – of barley, the sixth – of soybeans and the seventh – of chicken (MAPF, 2015). 60 per cent of the land is occupied by wheat, barley and corn. In the last decade, grain production has doubled, and in the recent years, there has been an increase in the production of certain livestock products (OECD).

Table 1 shows indicators characterizing the situation in the agriculture of Ukraine.

During the studied period, the number of profitable agricultural enterprises increased, but, at the same

time, the amount of net profit in 2015 amounted to 14925.7 billion US dollars, which is smaller than the same indicator in 2010 by 7169.2 UAH. Nearly 11 per cent of agricultural enterprises incurred losses in the amount of 25081, 1 million UAH, which is almost 5 times more than in 2010.

In 2014, the agricultural production (including hunting and forestry) in the country's GDP was about 11.8 per cent (Dopovid, ukrstat.org). In 2013, the share of agricultural products in the GDP amounted to 8 per cent (Rekere, Kirher, Naumenko, 2014, p. 1). In 2014, the agrarian sector of Ukraine had 3091,4 thousand people, which accounted for about 17 per cent of the employed population (Silske hospodarstvo Ukrainy, 2014, p. 30). This is a lot, because in comparison, according to the World Bank, in Germany, the agrarian sector has about 2 per cent of the employed population, in Denmark and France – 3 per cent, in Finland – 4 per cent, in Poland – 13 per cent and in Turkey – 24 per cent (The World Bank).

As for Ukraine, in 2014, there were about 46.2 thousand companies working in the sector. Of these enterprises, 14.8 per cent were business enterprises, private enterprises – 7.2 per cent, cooperatives – 1.3 per cent, farms – 75 per cent, state-owned enterprises – 0.4 per cent, other organizational forms – 1.3 per cent (Dopovid, ukrstat.org). Export of agricultural products is the main driver of the Ukrainian economy with nearly 20 per cent of the exports' value.

Table 1. Selected indicators of the development of agricultural enterprises in Ukraine in 2010-2015

Indicator	2010	2011	2012	2013	2014	2015	Deviation
Rural population aged 16-59, thousand people	8584.9	8558.3	8526.5	8486.4	8442.1	791.9	-142.8
Number of employees, thousand people	724.8	711	697.8	652.1	596	560.3	-128.8
Average monthly nominal wage of full-time employees, UAH	1430	1791	2026	2270	2476	3140	1046
Production of agricultural products by agricultural enterprises, thousand UAH (in constant prices of 2010)	94089	121054	113082	136591	139058	131919	44969.4
The number of agricultural enterprises	56493	56133	49415	49046	46199	45379	-10294
including private enterprises	4243	4140	4220	4095	3772	3627	-471
including farms	41726	41488	34035	34168	33084	32303	-8642
The level of profitability of operations, %	24.5	24.7	22.8	11.7	21.4	43.1	18.6
Enterprises that received net profit, % of the total number	69.6	83.5	78.6	80.3	84.7	88.9	19.3
Financial result, million UAH	22094.9	30182.3	33570.1	26186.6	26728.4	14925.7	-7169.2
Enterprises that received net losses, % of the total number	30.4	16.5	21.4	19.7	15.3	11.1	-19.3
Financial result, million UAH	4841.3	4915.3	6841.7	11260.9	30254.6	25081.1	20239.8

Notes: formed on the basis of the State Statistics Committee of Ukraine.

As we see, the situation in agriculture is far from satisfactory. Today, there are a large number of unprofitable agricultural enterprises, mainly those of them that are engaged in livestock production. A successful development of agricultural enterprises requires large-scale and effective investments. However, now the borrowed funds and the own

sources of agricultural producers are insufficient to meet their investment needs. Foreign investments in agriculture are obtained in limited amounts and their share in the total investments is still low.

Today, international practice recognizes the objective need in allocating significant amounts of

budget funds to support agricultural development. The leaders of such support are Switzerland, Norway, South Korea and Japan, in which investment subsidies in the income of farmers range from 60 to 70 per cent.

In the EU countries, the state's share in the price of the produced food is over 32 per cent, even though a big share belongs to the European funds, which support agricultural producers.

The financing of agricultural enterprises activity is an integral part of the system of management of investment activity. All administrative decisions on the allocation of financial resources have a direct or indirect impact on the results of not only investment, but also the core activity of enterprises. Financial provision of investment into agricultural enterprises is a scientifically substantiated process of formation and use of financial resources for the creation or reproduction of the fixed assets and production inventories by using one's own and borrowed sources of financing. Therefore, investment provision is subordinated to the general economic strategy of enterprises' development.

Particular attention should be given to investment projects. Realization of innovative projects confirms the importance of post-investment control, which is carried out after receiving the first results of the project. Post-investment control is required to determine the actual results, to compare them with the project's goals and to improve the future investment decisions.

The essence of the state investment policy consists primarily in identifying priorities, sources and amounts of investments in agriculture. Its main objectives include an increase of capital investments in those sectors and spheres of activity that contribute to a speedy overcoming of the crisis situation by the country's agriculture. The

complexity of solving the problem of development of investment processes and increasing investments in the fixed assets is caused by the long period of low-profit and unprofitable production, particularly livestock production, in most agricultural enterprises, which became the main reason for the sharp decline in investment into this branch (Sabluk, Shpykuliak, Kurylo, 2010, p. 362).

According to V. Yurchyshyn, innovative renovation of agricultural enterprises in Ukraine is a conceptual basis of modern agricultural policy, which will ensure the retention of market niches, the use of the latest achievements of the national and the world science and technology, the achievement of a much higher level of development by the agrarian sector of the Ukrainian economy (Yurchyshyn, 2003).

Investment attractiveness of agricultural enterprises opens new opportunities of diversification for domestic and foreign investors, increases the guarantees for foreign investors regarding their participation in investment projects. The analysis of investment attractiveness makes it possible to identify weaknesses in the company's activity and to offer measures to eliminate them and to create conditions for attracting investment resources. This, in turn, makes it possible for investors to make a decision to invest in this particular enterprise (Salkova, 2015).

Currently, for the majority of agricultural enterprises, real investment is the only direction for investing into them. Therefore, our further study will be aimed at disclosing the state and the problems of real investment in Ukraine's economy and agriculture.

In the recent years, the support for the country's economic development has been aimed at attracting foreign investments. The volume of foreign investments into the economy of Ukraine is presented in Table 2.

Table 2. Foreign direct investments (joint-stock capital) of the world's countries into the Ukrainian economy (volumes of direct investments as of January 1), million US dollars

Countries	2010	2011	2012	2013	2014	2015	As of 31 December 2015
Total	40053.0	44806.0	50333.9	55296.8	57056.4	45744.8	43371.4
Cyprus	9005.3	10044.9	13355.2	17748.6	18978.5	13707.6	11744.9
Netherlands	3954.5	4683.3	4898.0	5188.5	5543.7	5219.1	5610.7
Germany	6601.9	7083.0	7391.8	6120.9	6202.4	5684.7	5414.3
Russian Federation	2566.4	3403.2	3600.4	3793.0	3902.8	2715.9	3392.1
Austria	2605.2	2731.4	3418.8	3402.6	3178.8	2513.6	2402.4
United Kingdom	2307.5	2287.1	2593.4	2553.6	2768.2	2153.4	1852.5
Virgin Islands	1342.7	1451.5	1666.0	2007.6	2275.9	1988.3	1798.9
France	1630.8	2368.1	2260.4	1766.6	1740.9	1615.0	1528.1
Switzerland	796.4	862.3	947.7	1105.9	1351.0	1391.5	1364.2
Italy	982.0	980.6	975.1	1027.6	1210.2	997.1	972.4
Poland	866.7	932.8	854.1	917.0	839.5	828.3	785.9

Table 2 (cont.). Foreign direct investments (joint-stock capital) of the world's countries into the Ukrainian economy (volumes of direct investments as of January 1), million US dollars

Countries	2010	2011	2012	2013	2014	2015	As of 31 December 2015
USA	1309.1	1158.1	1000.7	1013.9	934.7	701.6	698.9
Hungary	711.5	700.5	681.4	685.8	685.9	593.2	625.4
Belize	120.0	139.7	159.7	852.0	1026.6	652.5	547.2
Other countries	5253.0	5979.5	6531.2	7113.2	6417.3	4983.0	4633.5

Source: Statystychnyi schorichnyk Ukrainy za 2015 rik.

Over the last seven years, foreign investments into the Ukrainian economy grew by 8.3 per cent. During this period, the leaders in increasing investments into the country's economy are: Cyprus – 30.4 per cent; Netherlands – 41.9 per cent and Switzerland – 71.3 per cent. Most investments from different countries were made in 2013 and in the beginning of 2014 amounted to 57.1 billion US dollars, which, in comparison to 2010, is an increase by 17 billion dollars or by 42.4 per cent. In comparison to the beginning of 2014, in the end of 2015 the amount of investments fell by 13.7 billion US dollars or by 24 per cent.

For the last seven years, among the leading countries, which direct their investments into Ukraine, the

leading positions in the structure of revenues are occupied by Cyprus (22.5-33.3 per cent), Netherlands (9.4-12.9 per cent) and Germany (10.9-16.5 per cent). But at the end of 2015, compared with the year 2012, the amount of direct investments from German decreased by almost 2 billion US dollars or by 26.8 per cent. If till 2014, the amounts of foreign direct investments kept growing annually, in the recent years, there is a clear tendency towards their reduction.

At the same time, Ukraine made direct investments into other countries, the volume of which for the period 2010-2015 has remained almost unchanged and amounts to 6.2-6.9 billion US dollars (Table 3).

Table 3. Direct investments (joint-stock capital) to Ukraine from the world's countries (volumes of direct investments as of January 1), million US dollars

Countries	2010	2011	2012	2013	2014	2015	As of 31 December 2015
Total	6226.3	6868.3	6899.7	6483.3	6597.4	6350.6	6210.0
Cyprus	5778.5	6342.5	6342.1	5811.0	5818.5	5819.5	5817.6
Russian Federation	166.1	190.3	236.6	292.6	377.9	196.4	122.8
Latvia	31.9	87.9	80.4	95.5	98.6	85.0	69.8
Virgin Islands (British)	20.8	25.8	25.8	25.8	25.8	25.8	51.3
Poland	49.4	49.1	48.2	54.2	56.4	53.4	50.1

Source: Statystychnyi schorichnyk Ukrainy za 2015 rik.

Investments to Ukraine are mainly directed from Cyprus. They amount to 91.9-93.7 per cent of the total sum or 5.8-6.3 billion US dollars. Minor investments go from the Russian Federation, Latvia and other countries.

Foreign investments are concentrated mainly on the development of industry (at the end of 2012 – 31.5 per cent and 2015 – 30.6 per cent), as well as financial and insurance activities (2012 – 29.0 per cent and 2015 – 27.3 per cent) of their total amount. Investments into agriculture, forestry and fisheries are insignificant and at the end of 2015 made just 1.1 per cent of their total amount in Ukraine's economy. At the same time, in 2015, in comparison

with 2012, they declined from 800.7 to 500.6 million US dollars.

The obtained foreign direct investments should be directed to innovative development of all sectors of the economy in Ukraine, especially of agriculture, because every third dollar coming into the country is generated by the export of agricultural products, every fifth Ukrainian works in agriculture and this branch makes a significant contribution to GDP.

Foreign direct investments into agriculture, forestry and fishery declined in the period 2010-2015 both according to their total amount and according to the contributions of individual countries (Table 4).

Table 4. Foreign direct investments into agriculture, forestry and fishery from individual countries, million US dollars

Country	Years						2016 to 2011, %
	2011	2012	2013	2014	2015	2016	
Total	719.5	725.3	717.8	776.9	617.0	500.6	69.6
Cyprus	237.8	343.8	312.7	361.5	238.7	177.5	74.6
United Kingdom	126.8	42.4	37.6	35.4	45.5	48.9	38.6
Germany	58.6	62.5	63.4	64.9	64.9	34.8	59.4
Netherlands	33.3	18.8	21.4	17.0	22.2	18.8	56.5
Austria	14.2	7.7	11.0	14.3	7.1	5.9	41.5
Russian Federation	8.8	6.3	10.1	11.0	4.6	4.1	46.6

Among the investor countries, Cyprus provided the largest volumes of funds, which decreased insignificantly. This demonstrates insufficient level of investments' security and low investment attractiveness.

To make agricultural enterprises attractive, it is necessary to maintain political stability in Ukraine and carry out a policy of non-interference in economic activities of business entities, which ensures the influx of additional investments. According to the data presented in the World Economic Forum, Global Competitiveness Report 2015-2016, among the most influential factors that hinder business activities in Ukraine are the access to financing (15.3 per cent), corruption (14.0 per cent) and tax regulations (13.6 per cent) (Vyshnevskaya, Filatova, 2013). In addition, a deep political and economic crisis, hostilities, unstable, unpredictable and non-transparent government policies, insecurity of creditors and landowners,

inefficiency of reforms related to taxation and land use, inadequate funding of agriculture and other factors are not conducive to attracting external funding. As a result, foreign investments in agriculture are limited.

Also, a significant problem for investors is the legal system in Ukraine. In particular, due to imperfect judicial system investors may not always have their interests protected to the detriment of the country's investment image.

A characteristic feature of investments into fixed assets in the structure of agro-industrial complex is overwhelmingly their investment into agriculture, food industry and the processing of agricultural products, the total volume of which in 2015 amounted to 9.4 and 9.1 billion UAH (Table 5). Therefore, intensification of investment activity of the food and food processing industry can have a positive impact on agricultural enterprises.

Table 5. Investments into fixed assets of the agricultural sector, 2010-2015 (at the beginning of the year)

Indicators	Years									
	2011		2012		2013		2014		2015	
	mln. UAH	%	mln. UAH	%	mln. UAH	%	mln. UAH	%	mln. UAH	%
Total for Ukraine	93096	100.0	125253.7	100.0	188486.1	100.0	233081.0	100.0	151777.0	100.0
including: agriculture, hunting, forestry	5016	5.4	7309.1	5.8	9519.2	5.1	16890.1	7.2	9382.0	6.2
agriculture, hunting and related services	4904	5.3	7190.1	5.7	9337.9	5.0	16682.1	7.1	9295.0	6.1
forestry and services	111	0.1	118.98	0.1	181.2	0.1	208.0	0.1	87.0	0.1
fishing, fish-farming	27	0.01	55.1	0.01	35.7	0.01	61.4	0.01	22.0	0.01
food industry	6305.6	6.8	8064.7	6.4	11388.4	6.0	14557.4	6.2	9096.3	6.0

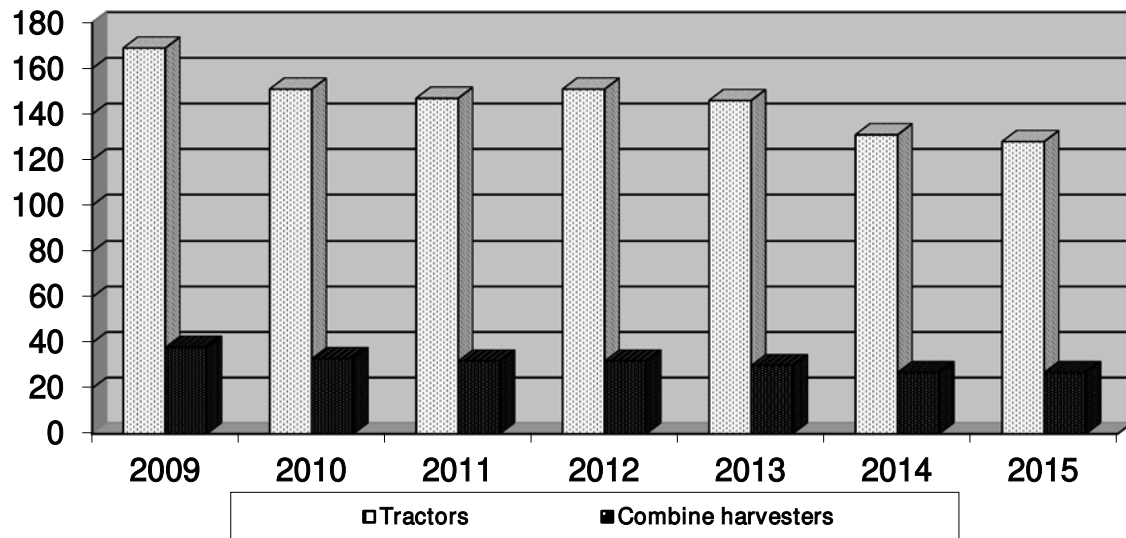
The growing global demand for agricultural products should be used as an incentive for investments and innovative development of agriculture in Ukraine. The agricultural potential of the country is so considerable that Ukraine is ready and able to feed its population and significantly strengthen its presence at the global food markets. Strengthening the economy and its competitive advantages on the global markets will facilitate optimization in the functioning of agricultural enterprises of Ukraine.

In the recent years, the goal of the country's agriculture has been to increase the volumes of production. A large-scale growth of agricultural production is aimed primarily at supplying the domestic market with sufficient amounts of food. It has to be focused on ensuring the consumption of scientifically substantiated standards of basic food products at favorable prices, as well as on the realization of significant amounts of food products at the foreign markets, where the demand for agricultural products, especially grain, is steadily

growing. That is why the goal of the country's agriculture is to find ways to restore its agricultural potential and to develop it by using the latest innovations and investments, which should lead to increased crop yields and higher competitiveness of agricultural products and profitability of agricultural enterprises, which could enable them to form their own sources for investments.

The results of activity of agricultural enterprises depend directly on the state of their fixed assets, a considerable share of which is used for the purchase and renovation of the existing facilities. This is one

of the greatest vulnerabilities of agricultural enterprises, which prevents the Ukrainian economy from demonstrating really decent results. Investments should be used primarily for the development of material and technical basis of agricultural enterprises, as their fixed assets have a tendency to wear out and the term of their use in many agricultural enterprises exceeds 15 years with their number constantly decreasing. Therefore, it is necessary to direct capital investments for the renewal of the fleet of tractors and combine harvesters.



Source: Statystychnyi schorichnyk Ukrainy za 2015 rik.

**Fig. 1. The fleet of tractors and combine harvesters in agricultural enterprises of Ukraine (end of the year), thousand units**

With insufficient quantities of tractors, combine harvesters and agricultural machines, agricultural enterprises have to buy them abroad, but, as a rule,

they are not new, but already used, which reduces their prices. Ukraine's own production of agricultural machinery declines every year.

**Table 6. Production of tractors, combine harvesters and agricultural machinery in Ukraine, units**

Type of machinery	2012	2013	2014	2015
Tractors	5280	4273	4121	4206
Rippers and cultivators	4652	4358	3739	3440
Disc harrows	1645	1975	2044	2252
Sowing machines	2721	3586	3023	3511
Combine harvesters	59	68	...	100

Source: Statystychnyi schorichnyk Ukrainy za 2015 rik.

As a consequence, the economy of Ukraine incurs losses while stimulating the economies of other countries. Therefore, it is necessary to develop a program aimed at recovering the volumes of manufacturing of agricultural equipment, which according to its technical and economic indicators, is not inferior to foreign analogues. It is also important to stimulate agricultural enterprises in the procurement of such equipment. It definitely will reduce the cost of crop production and create more jobs in the sector stimulating the development of the country's economy.

The rise in prices on agricultural equipment and machinery would be less perceptible, but sufficient for farmers to review their long-term development programs. However, it is clear that it is impossible to conduct a successful business in agricultural sphere without adequate provision with technical resources. Therefore, an acquisition of equipment and machinery is an expensive, but necessary part of land cultivation.

According to the Department of engineering and technical support and agricultural machine-building of the Ministry of Agriculture of Ukraine, a



minimal annual renewal of the fleet of tractors and agricultural machinery to meet the technological needs of the agrarian sector is estimated at 35 billion UAH, including about 40 thousand units of tractors (15 billion US dollars) and almost 7 thousand combine harvesters (10.5 billion US dollars).

Overall, the current technical state of agricultural enterprises does not correspond to the needs of

agricultural production. The fleet of machinery and tractors is morally and technically worn out and its current provision is only 60-65 per cent of the technological requirements. Operation of outdated machinery leads to frequent downtime because of repairs and adjustments. Consequently, this leads to delays in the seasonal field works, violations in technological requirements to crops that negatively affect the quality of the harvest and increase losses.

Table 7. Purchasing of agricultural machinery in 2011-2013

Type of machinery	2011		2012		2013		Deviations of 2013 from 2011	
	Units	mln. UAH	Units.	mln. UAH	Units	mln. UAH	Units	mln. UAH
Tractors	5068	1811.8	3979	1822.1	3699	1745.4	-1369	-66.4
of the Ukrainian manufacture	2648	590.8	1825	417.9	1394	322.1	-1254	-268.7
of the foreign manufacture	2420	1221.0	2154	1404.3	2305	1423.3	-115	202.3
Combine harvesters	1873	2318.1	978	1308.9	981	1280.5	-892	-1037.6
of the Ukrainian manufacture	759	831.3	120	99.7	99	59.6	-660	-771.7
of the foreign manufacture	1114	1486.7	858	1209.2	882	1220.9	-232	-265.8
Other machinery	9788	2424.9	9821	2932.4	7839	2587.5	-1949	162.6
of the Ukrainian manufacture	6363	764.3	5711	625	4095	473.1	-2268	-291.2
of the foreign manufacture	3425	1660.7	4110	2307.6	3744	2114.5	319	453.8
Total purchases	16729	6554.8	14778	6063.4	12519	5613.4	-4210	-941.4
of the Ukrainian manufacture	9770	2186.4	7656	1142.6	5588	854.8	-4182	-1331.6
of the foreign manufacture	6959	4368.4	7122	4921.1	6931	4758.7	-28	390.3

Source: formed on the basis of the State Statistics Committee of Ukraine.

As can be seen from the table, agricultural enterprises have fewer resources to purchase machinery. This can be explained by the decline in the purchasing power of enterprises and the rise in prices for this type of equipment taking into account foreign exchange rates at the time of purchasing. For example, if in 2011, the exchange rate of the dollar to hryvnia was 8 UAH for 1 US dollar, in 2015, the rate increased to 24 UAH for 1 US dollar.

Investment in technical provision of plant growing is necessary and attractive. Firstly, as a basis of plant growing, grain and oilseeds are always in demand at the domestic and foreign markets. Secondly, the volumes of investments are moderate compared to other investments in agriculture. In the beginning, it is sufficient to invest into the branch on average from 1 to 2 thousand US dollars per 1 hectare. The average payback period of investments is 2-4 years.

There are some risks that hinder investments into plant growing. Mostly, it concerns possible government interference in the regulation of exports. Such actions may lead to the lowering of prices on the internal market and complicate the realization of agricultural products.

In addition, there are risks that depend on the state regulation of the land market in Ukraine. Although the moratorium on the sales of agricultural land

was extended till 2016, the lack of effective legislative framework and coordinated actions of the branch's institutions are perceived by investors as additional risks.

In the last five years, the volume of imports of agricultural machinery and equipment has increased three times, reaching 650 million US dollars in 2013. The machinery and equipment were imported to Ukraine mainly from the USA, Germany and France. The dominant position in this market segment (more than 50 per cent) is occupied by Germany and the USA. The deliveries of these countries to Ukraine amounted to 700 million and 650 million US dollars, respectively. In 2013, the share of Germany in the imports was 29 per cent, and of the USA — 28 per cent. Experts predict a major increase in the number of tractors and agricultural machines provided by regional representatives of the major market operators through the development of dealer networks and services (Maslak, 2014).

We can make a conclusion that agricultural machine-building companies require investments and support that can revive the high engineering potential of Ukraine. The first steps in this direction have already been made: in April of this year, with the support of the Ministry of Agrarian Policy, the Kharkiv tractor plant and the Sampo company

signed a memorandum about the joint manufacturing of combine harvesters of the fifth grade “HTZ 3085” (Sampo 3085 Superior) (Pavlenko, 2015).

The situation that has developed at the market of equipment for agriculture, on the one hand, was caused by the growing demand for new economical and highly productive agricultural machinery as a result of the favorable high yields in agricultural output that made it possible for the farmers to renew their fleet of outdated machinery and tractors, and, on the other hand, a significant increase in their prices due to fluctuations in the national currency and the introduction of new rules regarding import duties.

Under these conditions, the state should not remain an idle observer. In the current difficult economic situation in the country, an important measure to support the market of agricultural machinery should be a clear state policy to stimulate the renewal of technical equipment. This can happen through the mechanism of preferential loans, the development of leasing and compensation of expenditures, which should be conducive to the development of the material and technical base, comprehensive mechanization and automation of technological processes, preservation of the fertility of soils in

agriculture on the basis of the best machinery of both the domestic and foreign manufacturers (Kernasiuk, 2015).

The state should actively promote agricultural exports of Ukraine, which could greatly enhance the ability of agricultural producers at the global markets. Therefore, in order to stimulate investments, it is vital to form a qualitatively new policy aimed at increasing the investment attractiveness of agriculture.

## Conclusions

Investments into agricultural enterprises are the basis for the introduction of modern technologies for the production and processing of the crop and animal products. In the recent years, the volumes of investments to address agricultural problems were insufficient, but the possibilities of their growth depend not only on the state of agriculture, but also on the general investment environment – macroeconomic stability in the country, the fight against corruption, and protection of investors' rights. On its part, the state must form an active investment policy, which will stimulate investment processes by creating a favorable investment climate. Investment growth, in turn, would ensure innovations in the competitive production.

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