SUPER-LARGE FARMS IN UKRAINE AND LAND MARKET

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Main objective of this study is the analysis of the principal reasons of formation of agrarian holdings in Ukraine, revealing tendencies of their development as well as plans for the nearest future. The important part of this study is an attempt to analyse possible scenarios of development of the land market in Ukraine and influence agro-holdings on it.

We have all reasons to believe that agro-holdings will appreciably represent agrarian sector of Ukraine in the nearest 5–7 years.

Many experts agree in opinion that after disintegration of the USSR in 1991, preconditions for the successful economic development of Ukraine in the conditions of market economy were the most optimal comparing to other countries of the Commonwealths of Independent States.

The agrarian sector of Ukraine, which accounted for about 25% in structure of the gross domestic product before 1990, was considered as a significant factor of economic growth of the new state.

An additional impulse to the development of Ukraine could become the reform of agriculture, after acceptance of necessary legislation base and restructuring of collective farms and state farms into the private companies, working on market economy principles.

However, despite promising preconditions, after 16-years history of Ukrainian independence, we may affirm that the agricultural branch of Ukraine is realised maximum to an extent of 25-30% of its potential. The reasons are the following:

- Incompleteness of important system reforms (including the land reform);
- Unfavourable investment climate;
- Non-transparent regulatory policy;
- Still limited purchasing capacity of internal demand;
- Insufficient qualification of the management of agricultural enterprises for highly competitive modern economic conditions.

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At the same time, despite of hard changes in the state agricultural policy, private sector shows abilities for improvement and self-development.

This tendency became obvious since 2001-2002 as we have discovered while our study: most of positive structural changes in agriculture of Ukraine based not on technical or technological progress, as a result of effective agrarian policy of the state; but it is based on "catching-up-effect" – the result of improvement of efficiency of enterprises themselves.

Efficient agricultural enterprises either have found foreign investors, or have made steps towards enlargement of the scale of production. The high level of profitability reached due to this was one of the reasons for rapid growth of interest to the agricultural sector from the investors.

Actually, during recent times and now agricultural enterprises in Ukraine are being actively restructured and integrated. We can affirm that during 2005 and 2006 the number of the enterprises, which operate more than 10 thousand hectares of land, has increased by 27%; the average size of the total area in these enterprises has raised by 7% to more than 20 thousand hectares.

Information concerning actively running processes of formation of agrarian holdings usually considered only as "single corporate news". Such kind of information on agro-holdings and large land operators is quite fragmented and incomplete. That is why we consider this study as among the first analysis made in Ukraine on problems of formation of agrarian holdings and their influence on land market in Ukraine.

The results of our study allow us to state, that 18 largest agricultural companies of Ukraine keep under the control agricultural lands with the total area of about 1,7 million hectares, which consist approximately 11% of the all farmland controlled by large and middle-size private farms of Ukraine.

Taking into account, that the average size of the land plots of agricultural companies is about 2 thousand hectares, mentioned above fact means, that around 850 large and middle-size enterprises have already lost the economic independence and, became the "daughter" units of existing agro-holdings.

Intentions of agrarian holdings concerning expansion of their activity are significant as well. Extrapolation of the data, which we have obtained from some of the national agro-holdings, for all largest agro-companies, allow to estimate that by the end of 2008 all agro-holdings

may accumulate about 2,7 million hectares of land, having increased this value by 49% in comparison with 2007 year.

We expect that by the end of 2008 the number of independent large and average producers of agricultural products may decrease to about 5 thousand companies (at the beginning of 2000-th the number of such enterprises exceeded 12 thousand).

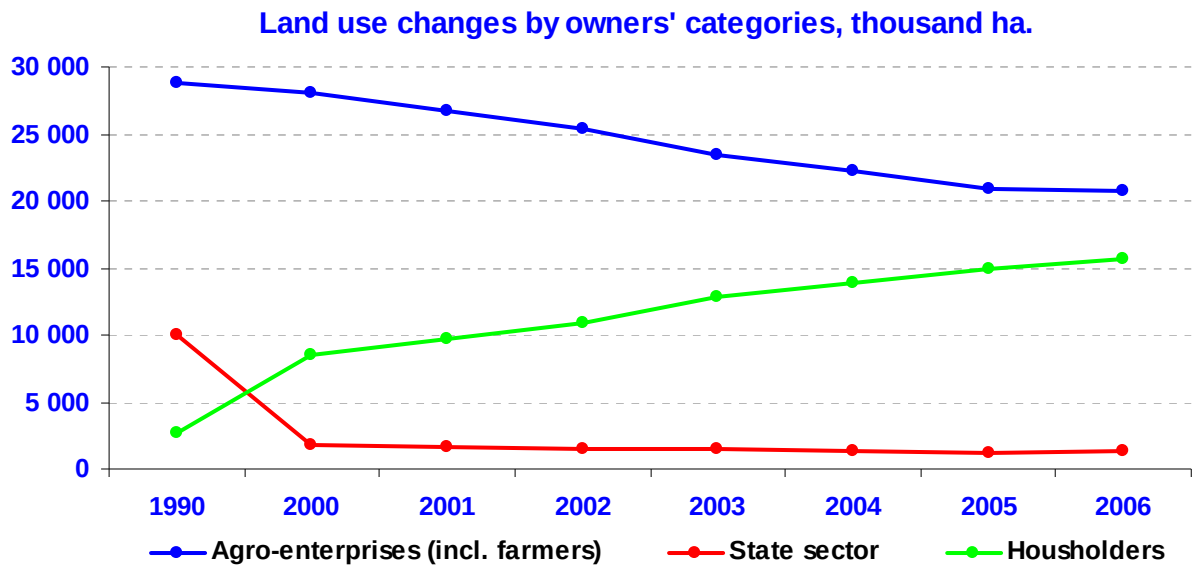
These tendencies will affect both business sector (changes of companies' strategies) and the state (changes in agrarian policy). This may lead to the serious and unpredictable consequences in various spheres of agrarian sector, starting from influence on structure of the rural population, and finishing with the agrarian markets operation.

LAND OWNERSHIP TRANSFORMATION IN 1990-2006

From out of more than 60,3 mln hectares of Ukraine's area, agricultural lands account for 42,9 mln ha, including 41,7 mln ha of farm lands, total arable areas – 32,5 mln ha. Thus, over a half of Ukrainian area is tilled that shows the country's specialization as the "bread basket" of the former USSR.

It is worthy to notice that significant part of the black soils (mainly in the Eastern and Southern regions) belong to a risky farming zone due to their natural and weather conditions (scanty precipitation). Considerable investments in the reconstruction of existing irrigation systems and construction of new ones are needed for sustainable crop production there.

Changes in the land use pattern by land users' categories generally reflect the land reform progress in Ukraine. The 2006 was the first year during the past 16 years when the tilled land operated by agricultural enterprises ceased to shrink. Its decrease stopped at about 22 mln ha. At the same time, just a bit more than 16 mln ha out of the above-mentioned area controlled by large and medium-size farms, which most likely will develop to a large-scale commercial producers.



Source: Annual digest "Agriculture of Ukraine, 2006", the Ministry of Agrarian Policy of Ukraine

AGRICULTURAL ENTERPRISES IN UKRAINE: NUMBER, SPECIALIZATION, SIZE

The number of Ukrainian large and medium-size agricultural enterprises (that operate more than 100 ha of land or employ more than 50 employees) exceeded 12000 at the late 1990-th. However, this number rapidly decreases in the 2000-th. In 2006, the total quantity of such enterprises decreased by 11% comparing to 2005 – down to 7460. The agricultural area operated by them reduced by 4% – down to 15,6 mln ha.

The agricultural enterprises mostly specialized in crop production. In 2006, animal production exceeded crop production only in two (Ivano-Frankivsk and Volyn – Western oblasts) of twenty-five regions of Ukraine.

The differences in specialization are determined, first of all, by climate and natural conditions. Ukraine's Western regions are comparatively not favorable for growing cereals.

In general, from 2005 until 2006, the enterprises' incomes from crop production rose by 26% (up to 15,4 bln UAH that is about 2,43 bln Euro) and those from animal production grew by 3% (up to 7,6 bln UAH, about 1,20 bln Euro). As a result, the crop production share expanded up to 51% in the total revenue for the given period.

The pattern of incomes was not considerably changed in 2007.

Land plots' size differs from one region to another. The smallest plots are located in Western Ukraine – Zakarpattya, Lviv, Chernivtsi, and Ivano-Frankivsk regions – the average area from 467 to 762 ha per one enterprise.

At the same time, in the Odesa, Poltava, Mykolaiv, Kherson, Donetsk, Kharkiv regions and the Crimea this figure vary from 2600 to 3300 ha per one enterprise and more than 3500 ha in the Dnipropetrovsk and Zaporizhzhia regions.

Plots' size depends on the regional traditions in farming and on the relief of the territory – forest-steppe and forest areas in the West and North of the country, with comparatively small fields, and steppes in the South.

In addition, we should note that the average allotment for the former "shareholders" of state and collective farms, which were distributed at the beginning of land reform, is larger in the Southern and Eastern regions than in Western and Central Ukraine. Thus, less organizational efforts are needed to accumulate larger plots of land in the South of Ukraine for agro-holdings.

LAND USE RESTRUCTURING

Tendency towards land concentration by the most efficient companies appeared in Ukraine during 2003-2007. Generally, the restructuring processes evolve in two directions: expansion of land operation by large enterprises and decreasing by small farms.

For just one year from 2005 to 2006, the number of holdings operating more than 10000 ha of land rose by 27% – to 75 units. At the same time, the average size of land plot operating by these companies extended by 7% –to 21100 ha. This trend is typical for enterprises tilling 3000 and more ha of land as well.

During just one year, large enterprises (operating more than 10 thousand ha of land) expanded their cultivated land area by almost 500 000 mln ha that equals more than 3% of the total tilled land by large and medium-sized enterprises. That is important that just slightly more than 300 000 ha out of above-mentioned area is rented land. And about 200 000 ha of land were owned by large enterprises using different schemes whereas land-trade is still illegal in Ukraine.

We may conclude that restructuring of land sector in Ukraine have accelerated much during last time. In fact, a few "points-of-increase" are being formed in each region, which are the most efficient corporations, which accumulate farmland. Most of the remaining enterprises

have already become "daughter-companies" of large agricultural holdings or will become them within the next few years.

The characteristics of Ukrainian agricultural enterprises would be incomplete without the study of land size determination on the economic performance of companies. We made calculations using data of wheat production (as the most widespread crop in Ukraine).

Table 1. Dependence of production efficiency on land plot size (wheat production, 2005)

Land plot size, ha	Sales of production, thousand tons	Production prime cost		Total production cost		Revenue		Profit
		thousand UAH	UAH per ton	thousand UAH	UAH per ton	thousand UAH	UAH per ton	UAH per ton
0-100	4,5	2107,6	469,7	2742,8	611,3	2016,1	449,3	-162,0
100-300	42,5	19689,5	463,8	23660,2	557,3	18603,9	438,2	-119,1
300-500	90,8	38865,4	428,0	44951,9	495,0	39788,5	438,2	-56,9
500-1000	494,2	198822,7	402,3	228605,4	462,6	206895,3	418,7	-43,9
1000-3000	3699,8	1283219,3	346,8	1462052,6	395,2	1520878,0	411,1	15,9
3000-5000	2352,0	778234,2	330,9	890822,2	378,8	954190,7	405,7	26,9
5000-10000	1659,1	544701,1	328,3	634653,3	382,5	704875,5	424,9	42,3
more than 10000	694,1	236352,1	340,5	279734,9	403,0	281774,1	405,9	2,9
Average by Ukraine	-	401,2	-	461,4	-	482,3	-	-

Source: own calculations based on State statistics committee data

Table 2. Dependence of production efficiency on land plot size (wheat production, 2006)

Land plot size, ha	Sales of production, thousand tons	Production prime cost		Total production cost		Revenue		Profit
		thousand UAH	UAH per ton	thousand UAH	UAH per ton	thousand UAH	UAH per ton	UAH per ton
0-100	6,0	3902,4	648,0	4932,9	819,1	3552,3	589,8	-229,2
100-300	38,2	20167,6	527,5	24080,9	629,8	20378,4	533,0	-96,8
300-500	71,5	36818,9	514,7	43007,7	601,2	38366,0	536,3	-64,9
500-1000	346,7	161819,0	466,7	185966,7	536,4	184621,1	532,5	-3,9
1000-3000	2873,4	1207778,1	420,3	1376690,6	479,1	1502061,8	522,7	43,6
3000-5000	1929,9	773758,8	400,9	882959,4	457,5	1002251,1	519,3	61,8
5000-10000	1390,4	574155,7	412,9	664423,4	477,9	745379,1	536,1	58,2
more than 10000	796,7	360314,7	452,3	426803,7	535,7	470078,3	590,0	54,3
Average by Ukraine		462,1	-		531,3	584,0	-	-

Source: own calculations based on State statistics committee data

These calculations show that growing of wheat is profitable for enterprises operating more than 1000 ha of land and profitless for farms cultivating smaller plots.

In 2006, wheat total production cost was rather high – 536 UAH/ton at the largest enterprises (more than 10 000 ha). This is more expensive than in other medium-sized and large enterprises due to high investments in assets, first in agricultural machinery. However, due to

effective sales policy and high prices when selling wholesale consignments, this category of enterprises was actually as profitable as other.

Besides, calculations show that crops cultivation within farms operating less than 500 ha is profitless.

All this bring us to conclusion that further restructuring of land sector of Ukraine, enlargement of middle and big farms and decreasing the share of small farms has not only institutional, but also economical background.

IMPACT ON THE LAND MARKET

In spite of the fact that land trade still is not allowed in Ukraine, the shadow land market prospers: using different schemes, a lot of land plots have changed their owners. These illegal or shadow transactions will lead to necessity of thorough examination of the legal history (clearness) of each plot, which changed its owner. This examination will entail additional expenses that will raise the market price of land and risks for investors.

This may entail legal processes, criminal investigations and a public and political resonance due to violation of moratorium-related prohibitions by these persons. Thus, the way of generating initial supply in Ukrainian land market contains reasons for its instability, at least at the initial stage. However, these problems hardly will concern a significant share of lands.

In the cases when the land rights of large land owners are not formalized and current owners are still nominal owners of the land, being in some way dependent on its real owners, we expect formalization of this situation and appearing of *significant supply of plots (for both buy-out and leasing) with "clean legal history"* in the market. But, at the same time, this may lead to negative consequences for current land lessors, who may be not ready to deal with large land operators.

In conclusion, we would like to point out that Ukrainian land market is functioning in the conditions of absence both the state-land-cadastre and the united registry of real estate property rights.

These factors contain serious risks of reliability of information concerning real estate actual owners and may not guarantee the property rights of landlords or land-users. In our opinion, this factor will have a stronger impact on the land market than presence of plots with a dingy legal history.

KEY AGRICULTURAL HOLDINGS IN UKRAINE

Many of researchers and economists attempted to find an adequate name or definition for the new entities, which appeared in Russia and Ukraine in the late 1990-th.

The following names are known: "new agricultural operators", "giant enterprises", "integrated agro-industrial structures", "vertically integrated holdings" etc.

But only a notion "agro-holding" has got accustomed in the Russian-language context. This notion implies to "a union of related to each other legal entities all managed by the head company and having mutual contracts and/or common property". In most cases, this head company is not engaged in agricultural production, being a managing company or a representative of the food processing or some other industry.

The agro-holdings embrace a wide range of activities: such as ownership, leasing, joint planning of production process, contracts for land lease, service etc.

Entities' organizational forms differ from each other. However, in general, four different but interrelated integration types are usually used:

1. ownership or leasing of land;
2. common goals and tasks;
3. vertical coordination;
4. know-how.

It is impossible to describe a typical structure of these entities because all agro-holding differ from each other by the following characteristics:

1. number of integrated enterprises,
2. type of processing and service;
3. type and terms of integration;
4. independence degree of united companies;
5. location.

Our study of agro-holdings among the first in Ukraine. Some attempts were made in past, but every time all researchers faced a problem of absence of statistical data. Statistical reports of agricultural enterprises do not reflect their affiliation with any of holdings. In addition, the head companies release just occasionally the general information about lands in operation.

The only way to collect this information is to conduct a survey or questionnaire. Both of these methods were used in our study.

Rating, geographic location and specialization

Rating of agricultural holdings of Ukraine

		Operated land for July 2007, thousand ha	Planned land expansion by the end 2008, up to thousand ha	Location	Specialization
1	Agricultural branch of Ilyich Mariupol metallurgical plant	238	n/a	Donetsk, Zaporizhzhia, Kyiv regions, Crimea	Cereals, oilseed, vegetables
2	Mironovsky Khleboprodukt	220	300	Crimea, Dnipropetrovsk, Cherkasy, Kyiv, Kherson regions	Cereals, oilseeds, horticulture
3	Ukrainian Agrarian Investments Ltd.	140	250	Cherkasy, Kirovohrad, Poltava, Sumy, Chernihiv, Vinnytsya, Khmelnytsky, Odesa, Mykolaiv, Ternopil	Rapeseed, wheat, soybeans
4	Company A[1]	120	170	Dnipropetrovsk, Lviv Kirovohrad, Mykolaiv, Odesa, Poltava, Kharkiv, Cherkasy regions	Cereals, soybeans, corn, rapeseed
5	Astarta-Kyiv Ltd.	110	120	Poltava, Vinnytsya regions	Sugar beet, barley, corn, soybeans, oilseed
6	Agro-industrial complex Shakhtar	100	n/a	Donetsk region	n/a
7	Industrial Dairy Company	86	150	Poltava, Chernihiv regions	Cereals, oilseed, rapeseed
8	Agricultural enterprises of UkrPromInvest	85	90	Vinnytsya, Cherkasy regions	Sugar beet, wheat, barley, rapeseed, soybeans, corn
9	Company B[1]	85	n/a	Poltava, Cherkasy regions	n/a
10	Western Company Dakor	84	100	Rivne, Lviv, Ternopil regions	Sugar beet, rapeseed, cereals
11	UkrRos Association	75	120	Kharkiv, Zaporizhzhia, Cherkasy, Mykolaiv, Ternopil regions	Sugar beet, wheat, barley, corn, oilseed
12	Enterprises of holding company Rise	70	115	Poltava, Sumy, Ternopil, Zaporizhzhia, Rivne, Cherkasy, Kirovohrad regions	Seeds growing, sugar beet, corn, crops
13	UkrZernoProm-Agro	70	100	Chernihiv, Kharkiv, Poltava, Khmelnytsky, Zhytomyr, Vinnytsya, Dnipropetrovsk, Mykolaiv, Odesa regions, Crimea	Wheat, rapeseed, barley, corn, oilseed
14	Company C[1]	70	n/a	Khmelnytsky region	n/a
15	Nibulon Agricultural Enterprise Ltd.	60	75	Mykolaiv, Luhansk, Kharkiv, Poltava, Cherkasy, Vinnytsya, Khmelnytsky regions	Wheat, barley, corn, oilseed, feed crops
16	LK Ukraine	54	120	Lviv, Ternopil, Khmelnytsky, Ivano-Frankivsk regions	Rapeseed, wheat

17	Limited company Agro-invest UKRAINE	35	100	Kyiv, Vinnytsya, Poltava regions	Corn, wheat, sugar beet, soybeans
18	Agro-Association Chysta Krynytsya	30	36	Poltava region	Cereals, oilseed, soybeans
	Total	1,7 mln ha	Increase by 52%		

[1] *– Companies, which did not want to disclose personalized information, or those for which expert estimations are given*

At present, more than 20 large agricultural holdings briskly operate in Ukraine. Eighteen of them are represented in this study; each them operate more than 50-100 thousand ha of land or plan to increase their areas to that size in the near future.

The total area used by these companies approximates to 1,7 mln ha. This is nearly 11% of lands tilled by large and medium-size agricultural enterprises in Ukraine.

A notable fact is that almost all companies mentioned in this study plan to increase their operated lands. According to companies' intensions, we expect that overall area increase will be at the level of 49% by the end of 2008. The main surplus will be observed in those enterprises, which currently cultivate 35-70 thousand ha and they will expand to about 100 thousand ha and more.

On the other hand, we expect a number of new large players to come to Ukrainian market from other spheres:

- from the financial capital;
- from the oil processing companies;
- from the large traders;
- from the animal production and food-processing businesses;
- from the bio-ethanol and bio-diesel producers and exporters;
- from the foreign agricultural producers (mostly from Eastern and Western Europe).

The total number of such new projects may reach 10 within the next two or three years (it is known for us that there are at least one serious intention in each of mentioned above field), but not all of them will be implemented by the end of 2008. Besides, up to five "second line" agricultural enterprises, which now operate about 25-30 thousand ha, may come to a land use and business level close to the largest holdings.

Therefore, the prospects of expansion of land use by agro-holdings by 50-60% till the end of 2008 looks realistic.

An inevitable rise in the business expansion cost (now the services of developer companies for acquiring agricultural enterprises cost for $150-200 per hectare that is comparable to the land value in some regions of Russia) within the next 3-4 years will be set off by very favorable conditions on both world and domestic markets of most crop commodities.

Thus, the agricultural holdings (including "new" companies) will gain control over at least 3 mln ha of land by the end of 2008 or at the first half of 2009.

KEY FEATURES OF AGRO-HOLDINGS' STRATEGIES

As we noticed above, the emergence of agricultural holdings is caused by problems of Ukrainian transitional period as a response to both imperfections of the institutional framework and distrust among key market players.

It would be useful to find out the sustainability of agro-holdings development revealed in the recent 2-3 years and what is the future of them. Whether the formation of agro-holdings may be regarded just as a response to Ukrainian transition period, or is this a long-term tendency of the entire agricultural sector?

We believe the following three scenarios are most likely.

a) Market determines use efficiency of land resources

The trend towards the consolidation of land within agricultural holdings will keep on until at most 200 key players remain in the agricultural market. This scenario is possible because it remains a critical point for many companies to fulfil contracts in time, better coordination within all supply-chain, and, what is very important, quality control of products when entering foreign markets.

All these can be quite fulfilled only in business processes of a vertical integrated agro-holdings. The consequences of this scenario for Ukrainian agro-industrial sector may be difficult predicted now due to lack of reliable data.

In addition, we expect that small private farms will hold just single niches in the agricultural production within the next few years.

b) Second scenario is less likely. It suggests a radical change of the institutional and legal field for agro-holdings operation

The increasing of size and influence may contribute to turning such companies into political speculations and public discontent, especially in such a sensitive area as foodstuff.

Under the public pressure, the government may impose certain restrictions on holdings activity. The operation of agro-holdings may become unprofitable and a next wave of structural changes will start in the agro-industrial sector. Naturally, it is impossible to predict what they will be like.

c) Third scenario is a combination of the first and second

According to this scenario, after buy-out of presently leased land, non-agricultural companies will return to their primary activities in 2-3 years and they will lease back the land to the farmers. On one hand, this will allow them to keep huge assets under control, on the other hand – to get rid of a risky business. This will be particularly important for companies whose main activity is outside the agro-industrial sector.

INFLUENCE OF AGRARIAN HOLDINGS FOR LAND MARKET

Emergence and active development of holdings will support increase in land price if no restrictions on land accumulation will be implemented. This tendency will be supported not only by the demand growth for lands but other factors will play a considerable role as well.

Some of holdings have already finished initial public offering or they are planning to make it. These companies will avoid using "shadow" schemes of land accumulation, transparent less for shareholders. This means that they will be obliged to pay real (market) price for land while further accumulation.

Besides, new investors from the Eastern Europe coming to Ukraine. The land price in these countries is, as a rule, at the level of more than 3 thousand Euros per hectare. Thus, the land price at the level of 10-12 thousand UAH (about 1,2-1,5 thousand Euro) is not something extraordinary for them.

Holdings can have a decisive influence on formation of the situation when "cheap" agricultural land "will be sold out" in the nearest 5-7 years. Actually, it can happen after expiry of validity of the major part of the present rent contracts.

Land price increase will lead to land rent rise as well. There is a high probability that the owners of land plots of 50-100 hectares will make business on leasing their land in 5-6 years after moratorium cancellation. These proprietors will purchase the land comparatively cheap, but will not be ready to give lease it cheaply.

SOME CONCLUSIONS AND RECOMMENDATIONS

It is obvious, that current structure of farms, which is the base for statistical reports in Ukraine, does not reflect the actual structure of the enterprises in the agrarian sector any more.

Absence of the proper record keeping concerns not only statistics, but also the state agrarian policy. It is necessary to define clearly the notion "agrarian producer" and organize the state support of agricultural producers properly.

Prospects of the majority of post-collective agricultural farms, which have not taken steps to enhance efficiency, are extremely pessimistic. It is especially true regarding enterprises situated in the regions with fertile soils:

a) these post-collective farms will not be financially strong enough to keep control over the leased land plots and furthermore to purchase them;

b) chances to receive long-term credits with beneficial terms are insignificant;

c) top management of these enterprises is not ready to continue business in the competitive environment;

d) we do not expect reduction of political and economic risks in the country during the coming several years, which would allow to protect these enterprises.

Absence of the effective lobby able to protect the post-collective farms also increases risks of such producers.

Contrary to recommendations of the western experts and irrespective to the massive support provided by donor projects, considerable state support etc., the role of small classical farms in the major regions of Ukraine is insignificant or the majority of farms can hardly survive.

Most likely, the small private farms will continue work in some southern and western regions of Ukraine and will concentrate activity on the production of less capital-intensive products.

This study have analysed only a part of holdings, which operate the vast areas of land and are leaders in other non-agricultural activities. However, a big number of agricultural companies keep under control more than 50 thousand hectares of lands each.

Diversification of agricultural production, entering to the international markets, IPO performance decrease risks for the large companies and agro-holdings.

An inconsistent of agrarian policy of the state and political instability of the 2004-2007 has led to freezing of the moratorium for land operations and authority has lost the control over

land market situation. We have to admit this fact.

The government must improve the investment climate in Ukraine, including agrarian sector. At the same time, it should avoid administrative regulation of the commodity markets.

It is extremely important for the authority to develop agricultural policy taking into account the realities of agrarian sector.

The society and business are already mentally and financially ready to start operations with farmland. Politicians have to show their will to introduce land market as soon. Only in this way, it will be possible to finish the land reform, which was started 15 years ago.

Ukrainian society pays a high price for postponing land market introduction and further agricultural reforms. The further delay of land making opening will mean delay in coming of long-term investments into the sector and in growth of its efficiency.