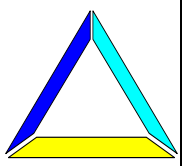
INSTITUTE FOR ECONOMIC RESEARCH AND POLICY CONSULTING IN UKRAINE
GERMAN ADVISORY GROUP ON ECONOMIC REFORM

Reytarska 8/5-A, 01034 Kyiv, Tel. (+38044) 228-6342, 228-6360, Fax 228-6336
E-mail: institute@ier.kiev.ua, http://www.ier.kiev.ua



S26

Ensuring Competition in the Market for Lease Land

Executive Summary

Even though the former Ukrainian state and collective farms have been restructured, and a large share of agricultural land is under lease, lease land prices have remained very low during the last two years. This is partly due to the low population density in Ukraine as well as the still low productivity level of agriculture. But the most important reason for low land prices is the fact that there is not enough local competition for lease land. Competition in the lease land market has the function to ensure that land "moves" from less to more productive tenants. Through this mechanism the competitiveness of Ukrainian agriculture will increase in the long run, because less efficient farms will decrease their size to the benefit of the more successful ones. The observed lack of competition is caused by the high costs which most landowners face when they intend to change the tenant. Currently the number of potential alternative tenants is very low. This can only change through an increase in the number of private family farms which increase the demand for land and lease land.

Recommendations

In order to increase the competition for lease land, an adequate environment should be created. Goal of such reforms should that landowners should have an option to have at least two potential tenant farmers to lease their land.

1. Support the establishment of private farms through help with farm registration and getting land titles.
2. The possibilities to exchange the land parcels in case of changing the lessees should be widened.

3. The high costs of land transactions could be lowered by institutional innovations. Any steps suited to improve the access to information for landowners could help small market agents to find business partners: both those willing to exchange land plots, and alternative lease takers. An improved framework for the role of real estate agents in rural areas could help to create the critical mass of supply and demand necessary for the Ukrainian land market to take off.
4. The state still owns a lot of land which this needs to be distributed. The manner in which this is done can have a very important influence on local land markets, creating or stifling competition.
5. Moreover, information campaigns and legal recourse have to be offered to landowner, most of them poor people living in remote places. The rights of land-owning peasants who are perhaps not accustomed to standing up to local authorities must be protected, especially since these peasants are often very dependent on the goodwill of local authorities and can be subjected to considerable pressure.

1 Introduction

Until the end of communism land was the property of the state. During the period of transition towards a market economy, private ownership of land has been established step by step. Thus, the real restructuring of the former collective farms (CAEs) which started in the year 2000 is creating a new class of small landowners. These new landowners basically have two options how to use this productive asset. Of course they can set up their own farm, but most of them opt for leasing the land plots and property to other agricultural enterprises, be they small or large farm units. A large share of these landowners are pensioners for whom the lease payments constitute an important source of income. These individuals will be interested in keeping the price of land, which is reflected in the lease payments, as high as possible.

On the other hand, large farms (former CAEs), or newly established private farms which want to increase their acreage, are now forced pay a productive asset which has basically been free in the past. These land users, and on the other hand the land owners constitute main agents on the **market for agricultural land** in Ukraine. The issue of land market has been thoroughly addressed by the German Advisory

Group.[1] This advisory paper deals with the problem of ensuring competition in the market for lease land under the special land use structure and distribution of land property in Ukraine.

Without doubt it is true that the existence of landowners makes agricultural production more expensive by imposing additional costs on agricultural producers. Landowners receive a rent from their land, a kind of income they get in exchange for the exclusive right to receive the fruits and benefits of land which is now enjoyed by the tenant. One could argue that the large share of lease land drains monetary resources from and thus constitutes a burden on the competitiveness of Ukrainian farmers. On the other hand, any decision to transfer the main part of agricultural land to the property funds of large former CAEs would have finalised the expropriation of millions of small landowners under communism. The restitution of this land to its original owners was no longer possible after so many decades, but there was a broad consensus in society that this land should be returned to the people.

The most important function of a land market in a market economy is to facilitate the flow of land from less efficient to more efficient producers. However, the emerging land market in Ukraine is burdened with two major inter-linked factors: high transaction costs and an inequality in the bargaining power between tenant and landowner. This has inevitably the consequence that a lot of agricultural land in Ukraine is worked by inefficient farms, simply because these farms are very large and headed by directors who are very influential on the local level. The empirical results of this paper indicate a strong positive relation between the number of private family farms, competition on the market for lease land, and lease land prices.

2 Why are transaction costs too high?

Transaction costs are costs which arise when two agents want to strike a business deal. They have to look for one another (find each other), and then they need to undergo a certain procedure (contracts, notary) to legalise the transaction. Thus, transaction costs originate from uncertainty and the need for information. To understand this better, let us imagine a planned transaction from the perspective of the landowner and the tenant, respectively.

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[1] Von-Cramon-Taubadel, Zorya, Striewe, "Policies and Agricultural Development in Ukraine", chapter "A Market for Agricultural Land in Ukraine", pp. 201-212 (*Translator, please check this for the Ukrainian version!!!)*

If a landowner has to decide what to do after the expiration of a lease contract, he has the choice between a) the continuation of the contract with the same tenant, b) finding another tenant, c) working the land by his own, and d) selling the land to someone else. All these alternatives imply different transaction costs. If we assume that the land plot is located somewhere within a large field (which is probably the case for most land plots in Ukraine), the cheapest option is to simply continue the contract. Alternatives b) and d) require finding a new tenant or a buyer, which may be difficult because the land plot may be very small and therefore not interesting to other farmers, unless many landowners with adjoining plots all agree to follow the same course of action (which would also involve high transaction costs). Option c) would not require this. But any withdrawal of land (when located in the middle of a field) from the present tenant would require an exchange of land parcels, either with a landowner from the same field when our landowner intends to work the land himself, or with a landowner from another field or even village. In the latter case, if the reason for our landowner to cancel the contract is that the tenant does not pay enough (maybe because he is a lousy farmer), he will have a tough job to convince someone else to entrust his land to that tenant. Even if one cuts out a small rectangle on the border, it will be less convenient for the farmer to carry out fieldwork with huge machinery, which may lead to conflicts between landowner and the former tenant. The consequence of all these considerations– which probably have gone through the heads of hundreds of thousands of new Ukrainian landowners already – is that land transactions are very costly, and that it is better to wait for a favourable offer or to collude with other landowners instead of seeking opportunities on one's own. The high level of transaction costs originates from both information deficiencies and the fact that land is immobile and cannot be physically moved to another tenant or owner.

From the perspective of the tenant the situation looks somewhat more favourable, particularly when the tenant is a large former CAE. In many cases tenants deal with former workers of the CAE, mostly a whole village. This makes it much easier to rally all the owners of plots in one or several fields and come to an agreement. This does not say anything about the price a tenant is likely to pay in the end, but only about the costs to conclude the deal.[2] If a tenant does not want to continue a contract, he simply informs the assembly of landowners, or all owners individually.

A medium-sized private farmer may face more difficulties when he intends to change something, e.g. enlarging his acreage. He has to find a proper field where tenure

[2] The assemblies of landowners facing the tenant principally offer an opportunity to wield more bargaining power against the tenant and to arrive at a higher price.

contracts are about to expire, and he has to convince the owners. For a newly established farmer, this may be somewhat more difficult (lack of trust on the part of the landowners) than for a long-established former CAE. But this is an empirical question.

To put it more generally: any change of the current structure is very costly for the landowners, but much cheaper for the average tenant. This means that the initiative is mostly on the part of the tenant. The tenant will become active and initiate a change when it is primarily favourable for him. As for the landowners, they will not so easily change their tenure relations. The reason is the particular land property and use structure in Ukraine being a legacy of the planned economy, which has nowadays resulted in a very unequal ratio of relatively few large tenants (probably around 14000, which is relatively, though not absolutely, few) to many small landowners (about 7 million).

3 How high transaction costs hamper competition in the land market

As already explained in the previous section, high transaction costs for land market transactions can be found in Ukraine. These costs are mainly a burden for landowners willing to transact land, while most tenants can act more easily. This creates an unbalance of power in the land market. Large farms can exercise a certain degree of monopoly power (strictly speaking, monopsony), which means that they can implicitly force the prices of leased land below a level which would be determined by the market if the size relations were more equitable. Landowners often don't see a real alternative to leasing the land to another tenant. The immediate consequences are:

- Land market transactions are relatively seldom.
- The land use patterns change only slowly.
- The emergence of new small and medium-sized farms is going at a slow pace.
- Land lease prices are relatively low.
- Land prices (as a property item) are low as well.
- Land is not attractive as a collateral for credits.

This list of consequences allows us to construct the following causal chain: land property/use structures create an unequal distribution of land market transaction costs. These lead to monopsonistic land market relations which mean thin land markets and depressed prices for land. In the end, low land prices are a reason for

the lack of credit due to the low level of collateral value. This creates problems for exactly the same large farms which seem to benefit from the current situation of low land lease prices. However, in the long run the number of landowners will probably decline due to sales to large farms or investors. This will lower the transaction costs in land markets and thus ease the "migration" of land to the better farmers.

4 Competition for land and lease prices: Some empirical evidence

The considerations above mean that if there were several farmers on the land of a former CAE, the competition among them for lease land should lead to higher land prices. In Tables 1 and 2 information on land lease payments and the number of tenant farms competing for lease land is presented. This information clearly indicates that there is a direct positive correlation between the number of competing farms on the land market and the level of the lease payments – the higher the competition level, the higher is the level of lease payments.

Table 1: Connection between the number of tenant farmers per thousand of hectares and the level of the lease payments per hectare among all oblasts of Ukraine in 2001[3]

Tenant farmers per 1000 ha	*Number of oblasts in a group*	*Land lease payments per hectare, UAH*		
		Minimum	*Maximum*	*Average*
1	3	46.0	68.3	57.1
2	8	48.3	103.6	71.6
3 and more	14	57.1	116.0	84.5

[3] Statistical yearbook "Agriculture of Ukraine" for 2001/ State Statistic Committee of Ukraine: Under direction of Yuriy M.Ostapchuk. – K., 2002; Own calculations

Table 2: Main indicators of the agricultural enterprises activities in Kharkiv and Kherson oblasts in 2001[4]

Indicators	*Kharkiv oblast*			*Kherson oblast*		
	Minimum	*Maximum*	*Average*	*Minimum*	*Maximum*	*Average*
Size of farms, ha	10	10974	2980	18	1563	3098
Number of workers	2	980	160	16	979	185
Value of assets, thd. UAH	6	109768	15812	7	108515	9560
Profit, thd. UAH	2	980	160	1.2	6988	468
Profit per ha, UAH	0.1	7069	142.9	0.8	12049	318.5
Lease payment per ha, UAH	2.2	483.3	68.3	0.7	1309.0	110.5

Of course there are other factors as well that influence on the level of the lease payments such as the climate zone and the quality of the soil. For instance, the Zakarpatian region has the highest level of farms per thousand ha (28 farms). But it is a special case where the natural conditions play the key role – limited quantity of land, which is moreover difficult to work due to its hilly profile. To eliminate these factors, we compare two oblasts which have the same natural conditions but different levels of land lease competition (Table 2 above). In Kharkiv oblast, where there is only one farm per thousand ha of leased land, the lease payment is 68.3 UAH/ha and year. In Kherson oblast with 5 farms per thousand ha, average lease payments are 110.5 UAH/ha or 61.8 percent higher than in Kharkiv oblast. In Kherson oblast, a higher level of average profit per farm and per hectare can be found, but at the same time the yields of grain and sunflower seeds, being the main commercial crops, in Kherson oblast are lower compared to Kharkiv oblast (grain 26.5 and 30.2, sunflower seed 5.5 and 12.4 centers per hectare of harvested are correspondingly). In this case the competition for lease land has not restricted farms in Kherson to become more profitable than their counterparts in Kharkiv. Competition in the land market leads to higher farm productivity and efficiency, because competition helps to drive under-performers out of the market.

To eliminate the effect of different soil qualities, the results of a small multivariate regression are presented in the following. The dependent variable in the analysis is the regional lease price, while soil quality and the competition for lease land are chosen as explanatory variables. The regional average yield (in 100 kg/ha) of wheat per ha serves as a proxy for soil quality, while competition is reflected in the ratio between former CAEs and new private family farms as reported in the regional statistics. The higher the ratio of private to former collective farms ("Farm ratio" in

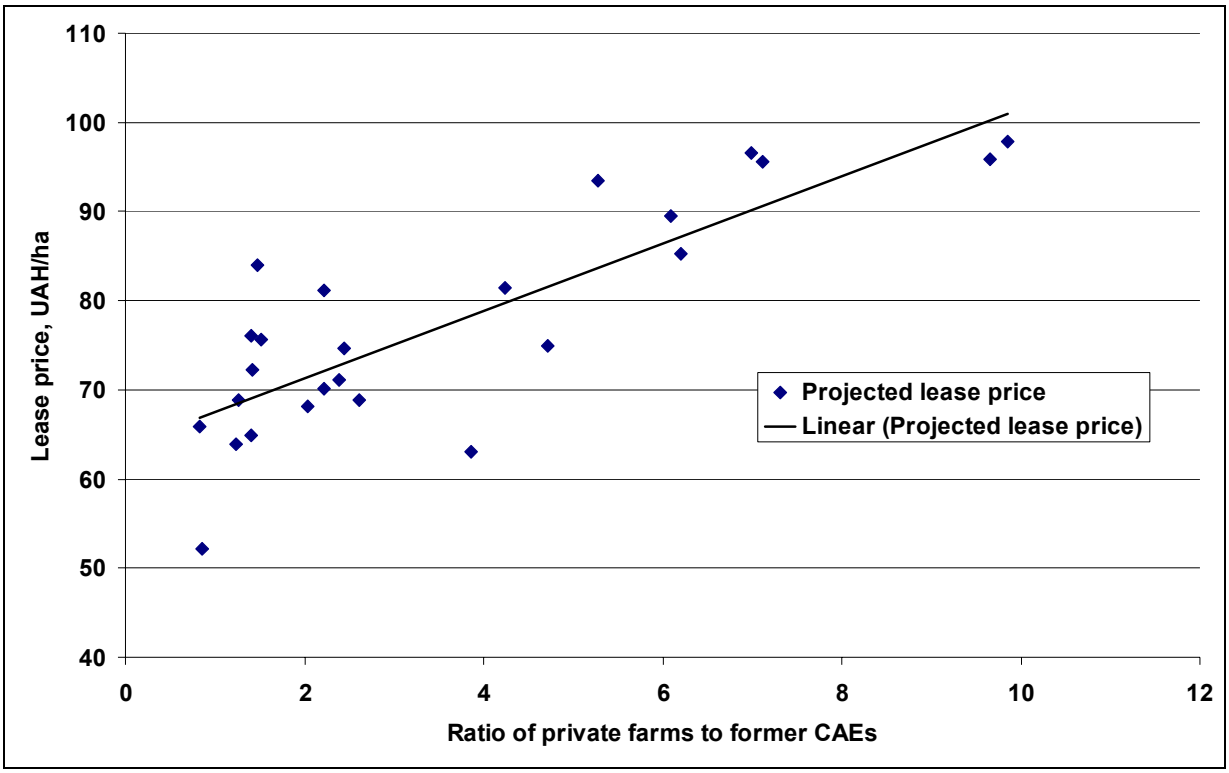
[4] The main economic indicators of farms activity of Kharkiv and Kherson oblasts for 2001. Derzhkomstat, Form # 50 S/H.

the result table), the higher is the assumed level of competition for farmland. The results of the regression are presented in the following equation:[5]

$$\text{Lease price} = 5.351 + 2.540 \cdot \text{Yield}\,(1.071) + 2.976 \cdot \text{Farm Ratio}\,(1.138),\ R^2 = .395$$

The figures can be interpreted as follows: An increase of the yield by one centner per hectare increases the lease price by 2.54 UAH/ha, while a doubling of the number of private farmers and keeping the number of former CAEs constant increases the lease payment by 2.98 UAH/ha.

The following graph shows the projected lease prices compared to the observed ones, corrected for the influence of regional yield levels.



As expected, the results reveal a clearly positive relation between soil quality (yield levels) and lease prices. But the interesting finding is that the more private farm exist in comparison to former CAEs, the higher are the lease prices in a region. The more private farms, the bigger the land market, the higher is the competition for

[5] The R^2 of .395 in the equation signals that the fit of the regression is fairly good, even though a lot of the deviations between the actual and projected lease prices is not explained by the exogenous variables. A more detailed presentation of data and regression results can be found in the short appendix attached to this paper.

land, and the higher will land prices rise. At first glance this benefits the landowners, many of them being pensioners who are dependent on additional income due to low pension entitlements. As for the tenants, costs will higher, but profitable farms will be able to pay it. Also small, newly established private farms may benefit from higher land prices. Their share of own land is much higher than for the former CAEs, and a higher value of this asset will increase their potential to get access to long-term credit.

5 Recommendations

In order to increase the competition for lease land, an adequate environment should be created. Goal of such reforms should that landowners should have an option to have at least two potential tenant farmers to lease their land.

1. The empirical results of this study show that private family farms can play a key role in making markets for lease land more lively. Local authorities should create the necessary conditions for the development of private family farms. They need to help the potential farmers with farm registration and getting land titles.
2. On the national level the land legislation should be improved. This concerns the law on the distribution of land parcels among the landowners, and possibilities to exchange the land parcels in case of changing the lessees.
3. The high costs of land transactions could be lowered by institutional innovations. Any steps suited to improve the access to information for landowners could help small market agents to find business partners: both those willing to exchange land plots, and alternative lease takers. An improved framework for the role of real estate agents in rural areas could help to create the critical mass of supply and demand necessary for the Ukrainian land market to take off.
4. The state still owns a lot of land which this needs to be distributed. The manner in which this is done can have a very important influence on local land markets, creating or stifling competition.
5. Moreover, information campaigns and legal recourse have to be offered to landowner, most of them poor people living in remote places. The rights of land-owning peasants who are perhaps not accustomed to standing up to local authorities must be protected, especially since these peasants are often very dependent on the goodwill of local authorities and can be subjected to considerable pressure.

A.K, S.D, Lector S.v.C.-T.
February 2003

Appendix:

Table 3: Detailed regression results – lease prices according to soil quality and competition intensity

Regressions-Statistics	
Multiple Correlation	0.667
R^2	0.445
Adjust. R^2	0.395
Standard Error	14.449
Observations	25

ANOVA

	Degrees of freedom	*F-Value*	*F critical*
Regression	2	8.822	0.002
Residue	22		
Gesamt	24		

	Coefficients	*Standard Error*	*t-Statistic*	*P-Value*
Intercept	5.351	25.023	0.214	0.833
Average yield 1999-2001	2.540	1.071	2.372	0.027
Farm ratio	2.976	1.138	2.616	0.016

Table 4: Competition for lease land in Ukraine, 2001[6]

Oblast	*Total land lease payments, 1000 UAH*	*Land in lease, 1000 ha*	*Lease payment per ha, UAH*	*Former CAEs*	*Number of private family farms*	*Ratio private farms/ former CAEs ("Farm ratio")*	*Farm density (# per 1000 ha)*
Crimea	90864	783	116.0	394	1860	4.7	2.9
Vinnytsya	94407	1095	86.2	886	12389	1.4	1.9
Volyn	27263	415	65.7	453	571	1.3	2.5
Dnipropetrovsk	95712	1167	82.0	467	3265	7.0	3.2
Donetsk	87625	920	95.2	518	2192	4.2	2.9
Zhytomyr	41765	871	48.0	721	596	0.8	1.5
Zakarpattya	4244	59	71.9	229	1420	6.2	27.9
Zaporizhya	98845	1078	91.7	392	2387	6.1	2.6
Ivano-Frankivsk	8672	130	66.7	252	658	2.6	7.0
Kyiy	70569	821	86.0	639	1415	2.2	2.5
Kirovograd	87072	1012	86.0	464	2451	5.3	2.9
Lugansk	6106	958	63.7	396	1531	3.9	2.0
Lviv	16695	251	47.6	583	1190	2.0	7.1
Mykolayiv	71317	799	89.3	444	4373	9.8	6.0
Odesa	101434	1223	82.9	758	5393	7.1	5.0
Poltava	83716	1201	69.7	618	1477	2.4	1.7
Rivne	27516	454	60.6	376	535	1.4	2.0
Sumy	55329	973	56.9	578	814	1.4	1.4
Ternopil	38089	499	76.3	581	721	1.2	2.6
Harkiv	89067	1304	68.3	532	1298	2.4	1.4
Kherson	70526	638	110.5	319	3080	9.7	5.3
Khmelnytsk	66163	880	75.2	720	1090	1.5	2.1
Cherkasy	93318	901	103.6	595	879	1.5	1.6
Chernivtzi	13588	169	80.4	285	633	2.2	5.4
Chernigov	45947	998	46.0	618	532	0.9	1.2

[6] Statistical yearbook "Agriculture of Ukraine" for 2001/ State Statistic Committee of Ukraine: Under direction of Yuriy M.Ostapchuk. – K., 2002; Own calculations.