Land market and E-services in Bulgaria

Trh s pôdou a e-služby v Bulharsku

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Abstract: Bulgaria faced and still is facing many challenges in the accession process to the EU. Free movement of capital, and especially the development of the land market, is one of them. Although the progress is made, the market is still developing and the land prices are still below the average prices in EU. There are different reasons for this: very fragmented land after the restitution process, chaotic transactions, lack of bank credits for agricultural purposes, unrealistic expectations after the accession to the EU, etc. The land lease continues to be the preferred way for land cultivation instead of buying of land. All those problems are studied in the current paper. A concept for e-service that could contribute to solving the problems is introduced; relevant e-services are summarized and a particular solution is presented that uses results of the eTen project Bizmap.net. It is described how this solution could be used in the Bulgarian land market.

Key words: agricultural land market, land prices, land lease, land transactions

Abstrakt: Bulharsko čelilo a stále čelí mnohým výzvam v prístupovom procese do EÚ. Voľný pohyb kapitálu a najmä rozvoj trhu s pôdou, je jednou z nich. Napriek dosiahnutému pokroku, trh sa neustále vyvíja a ceny pôdy sú ešte stále nižšie ako priemerné ceny v EÚ. Existujú pre to rôzne dôvody: veľmi fragmentovaná pôda po reštitučnom procese, chaotické transakcie, nedostatok bankových úverov na poľnohospodárske účely, nerealistické očakávania po vstupe do EÚ, atď. Prenájom pôdy sa stáva uprednostňovaným spôsobom obhospodarovania pôdy pred kúpou pôdy. Aktuálny článok sa zaoberá všetkými týmito problémami. Predstavíme koncepciu e-služieb, ktorá by mohla prispieť k riešeniu problémov; zhrnieme podstatné e-služby a predložíme konkrétne riešenie využitia výsledkov eTen projektu Bizmap.net. Opisujeme ako by mohlo byť toto riešenie využité na trhu s pôdou v Bulharsku.

Kľúčové slová: trh s poľnohospodárskou pôdou, ceny pôdy, prenájom pôdy, pôdne transakcie

SITUATION OF THE LAND MARKET IN BULGARIA

The land market in Bulgaria started functioning in 1998 because of the land restitution. The market was very poor and chaotic at that time. The trend continues also during the next years – there were active supply, low demand and big price differences. The biggest dynamic was observed in 2001 because the landowners already possessed deeds and were able to appear on the market. It led to significant difficulties in the land transactions in 2002 and 2003. In the last few years the land market in Bulgaria is still developing. The reasons causing the more intensive development are:

– Accession to the EU and farmer's expectations for subsidies;
– Two pilot projects on land consolidation implemented in the last years;
– Interest expressed by foreign companies.

For better understanding of the situation, some market indicators are analyzed in this paper and they demonstrate clearly the process.

Land market 2000–2004

Number of transactions of agricultural land

The number of transactions at the beginning of the period is on low level – 11 160. At the end, the number of transactions is 4 times higher – it increased extremely in 2001, slowly in 2002 and after small decreasing in 2003 it again increased to its maximum level during the period.

The number of transactions is the highest in the North Eastern region[1] of the country followed by North Central, South Central and South Eastern regions.

[1] Regional qualification is made according to the National Development Plan of the country.

Sold agricultural land

For the period, the biggest size of sold agricultural land is observed in 2001 – 59 498 ha. During the previous year, the sold agricultural land is about 4 times less. In the last three years, the indicator varies slowly. It does not reach the lowest levels from the first year and the highest level from the second year.

There is a big difference between the size of sold agricultural land in North Eastern and South Western regions. The highest size of sold agricultural land is in North Eastern region; the lowest is in South Western region.

Average price of agricultural land

The average price varies without any extreme changes in the period. It starts from 700 EUR/ha and reach 731 EUR/ha in 2003. In the next year, the price is decreasing to 685 EUR/ha.

There is a big difference in prices between South Western and Northern part of the country because of the soil characteristics' differences and the size of agricultural plots. For the period, the highest price value is observed in South Western region; the lowest – in North Central and North Eastern regions.

On the base of the land market prices in 2004, three regions in the country might be formed:

- *Region with low market prices* (North Western and North Central regions). The average market price in the region is about 491 EUR/ha. It is 40% less than the average price for the country.
- *Region with medium market prices* (North Eastern and South Eastern regions). The average market price in this region is about 700 EUR/ha which is almost equal to the average price.
- *Region with high market prices* (South Western and South Central regions). The average market price in the region is about 1 278 EUR/ha which is much more than the average price in the country.

Bulgarian prices and the European Union prices

The land market prices in Bulgaria are still below the average prices in Europe. Figure 1 clearly proved the above statement.

It is visible that the prices in the EU 10 are much higher than the prices in Bulgaria and even in the new member states.

Correlation between the sold agricultural land and the average land price

Two types of correlation in contrast are observed according to the correlation between the sold agricultural land and the average land prices:

- The first one demonstrates that the big size of sold agricultural land corresponds to low or medium level of prices. It is typical for North Central and especially for North Eastern region.
- The second one demonstrates that the small size of sold agricultural land corresponds to high or comparatively high prices. The typical examples are South Western and South Central regions.

In the years both types are observed in South Eastern and North Western regions.

Correlation between the average price and the average size of agricultural properties

The land fragmentation in Bulgaria becomes a big problem after the land restitution. As a result, about 10 million land properties were established, belonging to approximate 2 million owners[2]. It means that the average property area is about 0.6 ha, including perennial plantations, meadows, and pastures.

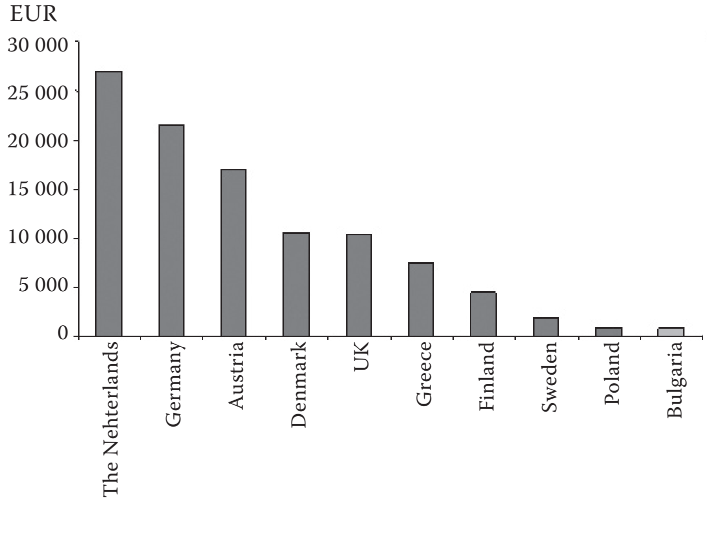

Figure 1. Comparison on land market prices

[2] Information of the Ministry of Agriculture and Forestry.

Comparing the average land price and the average size of agricultural land, several conclusions might be made:

– High price levels were observed in the municipalities with the most fragmented land; also in the mountain regions, in the municipalities situated close to Sofia and on the Black Sea coast;
– Low prices correspond to municipalities with well developed agriculture and size of the agricultural land above the average of the country.

Those conclusions show that the market of agricultural land in Bulgaria does not follow the logical statement – well developed agriculture corresponds to high land prices.

Conclusions about the land market in Bulgaria

Based on the mentioned analysis and some social, economical and regional conditions, few conclusions about the land market in Bulgaria might be done:

– The supply is bigger than the demand. It leads to comparatively low land prices.
– The agricultural land market depends on incomes from agricultural production. For example, 2004 was good for the agriculture. The land market is very active in this year.
– There are big regional differences in the market indicators because of the different producing bodies, incomes from agricultural production and ownership rights.
– The land category influences the land market prices. The location, closeness to the capital and big cities, Black Sea coast and mountain resorts also influence the prices.

SITUATION OF THE LAND LEASE IN BULGARIA

In Bulgaria, land lease might be studied from different points of view. For the landholder, the land lease is a very good tool to obtain incomes by producing agricultural products and at the same time not to invest money in land purchasing. For the lessor, it is a great opportunity to obtain incomes without cultivating the land.

Land lease 2000–2004

Again, some indicators are studied for analyzing the land lease in Bulgaria.

Number of leasing contracts

At the beginning of the period, the number of leasing contracts was 120 214. It decreased a bit in the next year and after that started increasing slowly. In 2004, it reached the highest level for the period – the increasing is more than 2 times compared with the first year.

There is no explicit regional difference in the years. Some exceptions are the North Eastern region in 2001 and the North Central region in 2004.

Comparison between the number of transactions and leasing contracts 2001–2004

The comparison between the number of transactions and the number of leasing contracts shows that the number of leasing contracts is higher than the number of transactions during the period. At the beginning, the difference is about three times, at the end – about five times.

Size of leased land

The trend of this indicator follows the trend of the previous one – number of leasing contracts. Again there is a decrease in 2002 – the minimum for the period dropped to 243 156 ha – and after that increase as the biggest one is in 2004 – 562 870 ha.

There is no big difference in the regions. In the North Eastern region, the size of the leased land is the highest during the first three years. In 2004, the indicator is almost equal in both regions, North Eastern and North Central.

Comparison between the size of sold and leased agricultural land 2001–2004

The comparison between both indicators shows that the size of the leased land is higher than the size of the sold land in the observed period. The difference in the indicators is lower at the beginning of the period – about five times – and slowly increased to its maximum at the end of the period – about 12 times.

Regional qualification according to the leased land in 2004

On the base of the leased land, the territory of Bulgaria might be divided into three regions:

– Regions with low size of leased land (North Western, South Western and South Central regions). The land lease is developed weakly in this region. The rents in kind predominate. The rent incomes are lower than in the other regions. One of the reasons for this are not well developed agricultural producers or big farms.
– Regions with medium size of the leased land (South Eastern region). The rent incomes vary from

2.56 EUR to 5.33 EUR. The rents in kind reach to 1 000 kg/ha.
– Regions with a high size of leased land (North Eastern and North Central regions). During the period, about 60% from all leased land in the country is leased in this region. Rent incomes vary from 2.56 EUR to 7.67 EUR. The rents in kind reach to 600 kg/ha.

Conclusions about the leased land in Bulgaria

– The rent incomes are almost equal in all regions. There is no explicit difference.
– The rent incomes depend mainly on the agricultural incomes.
– The land lease still is a preference for the landowners. They do not cultivate the land but obtain incomes from it.
– The land lease is a preferred way for land cultivation despite of land buying.

USE OF e-SERVICIES IN THE LAND MARKET IN BULGARIA

The e-Services in Bulgaria relevant to the land market, developed so far, might be summarized in 2 major categories:

1. *Governmental* – Information system "Land Market"

The information system "Land Market" is hosted and supported by the Ministry of Agriculture and Forestry (MAF). It gives information about the offer and demand of agricultural land nationwide in Bulgaria. Every user is able to enter the information about his land properties after registration. The system is available in Bulgarian language on the web page of the Ministry of Agriculture and Forestry: http://www1.mzgar.government.bg/land_www/default.asp.

A digital cadastre for agricultural land exists in the country since a few years. Now it is hosted and supported by the MAF but in the near future, it will be transferred to the Cadastre Agency (Ministry of Regional Development and Public Works). Undoubtedly, the digital cadastre for all kind of territories (not only agricultural) will facilitate and support the e-services relevant to the land market. Its development in Bulgaria is still in progress under the ongoing project "Digital cadastre and property register", financed by the World Bank. The beneficiaries of the project are the Ministry of Justice (Registry Agency) and the Ministry of Regional Development and Public Works (Cadastre Agency).

Digital cadastral maps and registers for the total of 18 districts, 33 municipals and 200 settlements were prepared by 1st of July 2006[3]. They are in use already. Access to them is possible after a request sent to the Cadastre Agency.

2. *Private real estate and GIS companies – Search facilities on the web sites*

There are many real estate private companies in the country. In the last few years, there is a huge expansion of foreign companies dealing with small agricultural properties and cottages. Usually there is a search facility on the web sites of those companies. It gives an access to their databases and all users are able to check the plots.

In addition, GIS companies extend their business by developing internet applications for providing information about the real estate properties in the country. One very good example is deployed by GIS Sofia (consists of data only for the territory of Sofia).

THE BIZMAP SOLUTION

The Bizmap.net (eTen project) aims to deploy the full cycle e.government services to the citizens and business sector by a flexible back-end framework: the hub, with an interface: the broker centre that synchronizes the web services between the different organisations.

1. What is the service offered by the Bizmap?

The Bizmap.net (Bizmap.net project documentation) idea is an answer to the increasing need of the business sector for full-cycle, secure and cost-effective administrative services on European level.

The implementation of the project would provide a flexible back-office framework (hub) for seamless document handling between administrations and businesses through an e-service brokerage model. It would allow the use of different technologies and various file formats, corresponding to the concrete requirements and preferences of the users.

The Bizmap.net would set standards valid within the European Union, while still offering services on the local level. In this way, it would help the removal of cultural, jurisdiction, language and other barriers, as well as technological barriers. The project also aims at facilitating the communication between businesses and administrations, making them more effective and finding quick solutions to arising problems. Its goal is to achieve the effective collaboration between the different institutions.

An important area for the Bizmap.net solutions are spatial data services, which involve huge amounts of data, the fast access to which is crucial in some cases but difficult in practice.

2. Which problems does it solve?

The main goal of the project is to stimulate economic development by offering fast and effective e-services and information and thus creating opportunities for savings and reduced real cost of the services (in terms of time, waiting and quality). The Bizmap.net solutions would also bring savings to the government sector and other owners of public information by a more efficient and cost-effective processing and maintenance of data, which is outsourced to a Bizmap data warehouse or distributed database system.

On the base of the made analysis about the land market in Bulgaria, some conclusions about the relation between the Bizmap technology and Bulgarian land market might be done:

– Usually, the collection of the information and data for analytical purposes is very difficult in the country. From this point of view, the Bizmap will facilitate very much any kind of researches in the field of land market.
– From the business point of view, the technology of Bizmap will support extremely the real estate companies and citizens in buying, selling and exchanging of land plots. All kind of information about the property size, soil characteristics, current owner, price, etc might be provided by the system. Also all kinds of digital files might be transformed and used.
– The land lease also might benefit. By using the Bizmap, a more precise, adequate and updated information about the leasing indicators will be provided.
– Because of all mentioned conclusions, it might be supposed that the technology of the Bizmap will support and facilitate the land market development. It will not happen in the near future but it is possible to happen in a long-term period

3. Problems and obstacles for the Bizmap implementation in the land market

Inevitably, applying of the Bizmap.net idea to the Bulgarian land market will lead to arising of some obstacles and problems. The problems, which might be faced in Bulgarian case, are:

– The cooperation between state organizations, owners of land data, is not very fruitful. Although a positive development is observed in the last years, the coordination and cooperation is not on a proper level.
– Farmers an people who want to buy or sell their land are not very familiar with computers and IT services. Probably, the Bizmap services will be used by private companies, which will deliver them to the interested people as a separate paid service.
– People are still emotionally attached to their land properties and usually they do not want to sell them, still less using modern technologies and services.
– Other problems are also possible because of a different kind of reasons – economic, administrative, organizational, institutional, etc.

CONCEPT OF USING THE BIZMAP IN BULGARIAN LAND MARKET

The application of the Bizmap.net idea in the field of land market is presented in the diagram below. It describes the idea in using Bulgarian institutions involved in the land market.

The diagram below presents the Bizmap model applied to the Bulgarian land market sector. All owners of public data are identified. Private companies are also included as the owners of data. Usually they have their own databases for land demand and supply and might be used as an adequate source of information about the prices.

The next important component is the broker. It might be a private company or state agency (as discussed in the Bulgarian National Land Agency). A flexible back-office framework (hub) for seamless document handling between administrations and businesses or citizens through an e-service brokerage model provided. The web service, accessing providers, will deliver all data, documents, information, etc to the citizens or business clients by different tools.

Users of the technology will be the citizens and/or business clients. The ways to access the service are presented in the diagram.

It is visible that there is a decrease in the payments, after applying the project idea to the land market, comparing to the current payments because of more efficient procedures (Figure 2).

In case a user wants to obtain information about the relevant land plot, it is not necessary to send a request to the government authorities about all parameters of the plot (size, location, owner/s, price, soil characteristics, etc). The user should contact the broker and to specify all kinds of the needed information. Then the broker itself contacts the mentioned organizations and requests the information. They provide it to the broker who summarizes it and provides it to the user.

[3] Cadastre Agency Information.

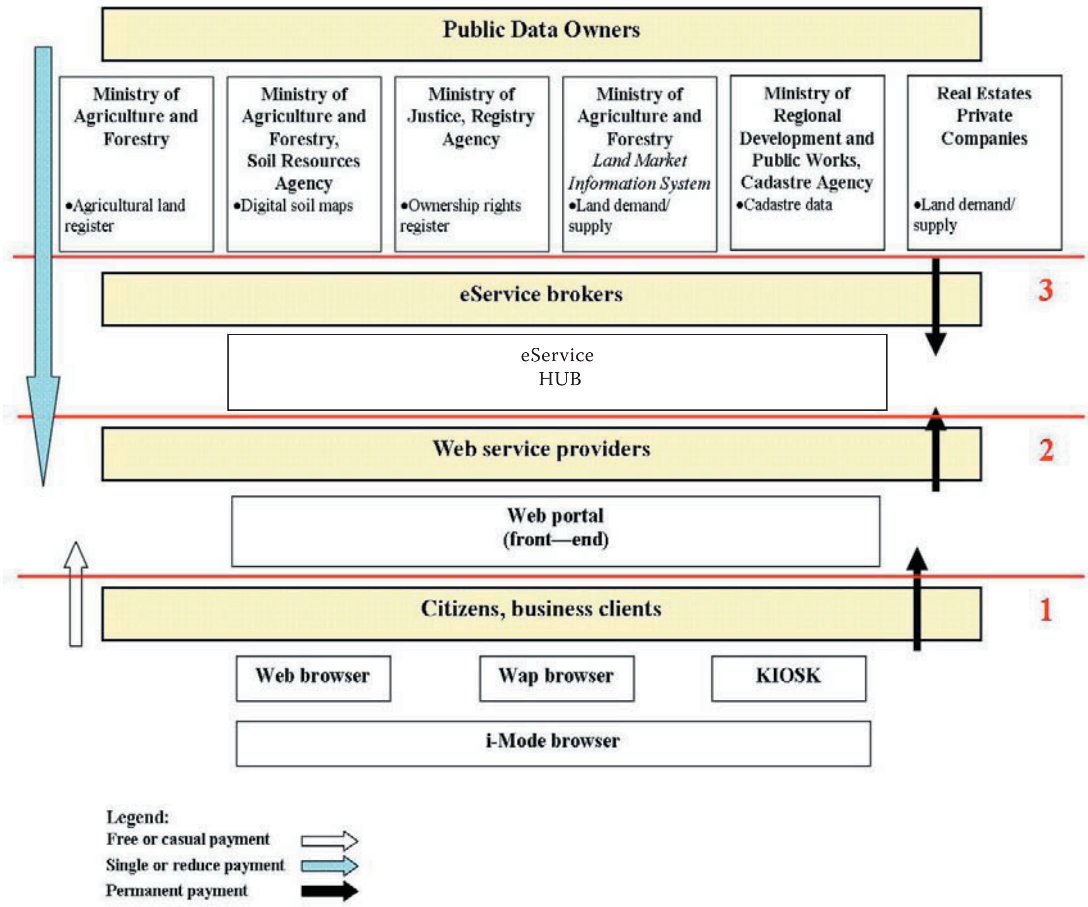

Figure 2. Concept of using the Bizmap project in Bulgarian Land Market
Source: Osskó, Sonnenberg (2002)

CONCLUSIONS

The trend of all indicators, investigated in the paper, shows that the land market and land lease will continue its extensive development in future. It is expected that the land will be consolidated naturally by the market or by projects. As a result, the land price will increase, especially after the accession to the EU and new foreign investments. After finalizing of the digital cadastre, the land market will be stimulated and supported to introduce different IT solutions and services as the one presented in the paper. The deployment of technologies such as the Bizmap will facilitate the research and business activities in the field of land market. For introduction of such technology into the practice, many things should be done in the country – agreement among the institutions that should participate in the exchange of information; some legislation changes also should be done.

In conclusion, the land market in Bulgaria will continue its development in future. This will lead to the introduction of different e-services into the practice. These services themselves will facilitate and support the land market.

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