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IMPACT OF LAND USE CHANGE ON LAND VALUE IN HUNGARY

WPŁYW ZMIANY UŻYTKOWANIA GRUNTÓW NA WARTOŚĆ ZIEMI NA WĘGRZECH

Key words: agricultural land ownership, land use, land value

Słowa kluczowe: własności gruntów rolnych, wykorzystanie gruntów, wartość gruntów

Abstract. Tracking and analysing economic and social changes in the agricultural sector is vital for decision makers, sectoral parties, professional and advocacy organisations and research institutions. Collected statistical data serve as a basis for domestic decision making and provide the foundation of strategy formulation in rural development, agro-environmental protection and sustainable agriculture. In the course of our research, analyses based on statistical databases were used to assess land use changes and land market prices. The structural survey of the Hungarian Central Statistical Office in 2013 shows that the proportion of business organisations utilising arable land grew 7 percentage points while individual farms increased their share by 2 percentage points. Our research shows that the concentration of land use increased demand for land and thus contributed to the increase in land prices.

Introduction

The economic transition brought private ownership of production factors (i.e. land) and significant changes in the composition of land owners and utilization. Private ownership became dominant in Hungary in the early 1990s due to privatization and restitution. According to recent data (Central Property Register, January 2011) more than 80% of agricultural land is in the ownership of private individuals. The new structure of land ownership showed a typically small size of land owned amounting to less than 2 hectares per capita, while on the other hand land use was concentrated as farm corporations had a typical size of 308 hectares of cultivated land compared to an average of a 5.4 hectare typically managed size for private farms [*Farm structure*... 2014]. Thus there is a clear distinction between land owners and the managers of land.

When Hungary became an EU member state, the European Commission granted a prolonged derogation period for the prohibition of transactions concerning Hungarian agricultural land (procurement by non-EU entities and individuals) for ten years ending in 2014 [Vinogradov et al. 2014].

Permitting corporate land purchases along with private purchases (ownership-based integration) could invigorate the land market. There is also a possibility to secure rental right against the collateral of producer income and to transfer the right itself. Foreign purchasing power could boost the market but domestic positions could easily be weakened. The boom of the land market can bring rising prices as well as significant reduce the competitiveness and purchasing power of Hungarian producers [Biró 2009].

Judging from 2013 data, there was a significant change in the composition of land use by entities. The number of individual farms declined to 485000 (49.7%) from the year 2000. The number of commercial enterprises on the other hand increased to 8600 (23.8%) by 2010, and since then has declined 2% (to approximately 8400). This, alongside the size distribution of land use shows that most individual farmers (67.5% in 2013) use less than 1 hectare.

Typically these users are employed in other sectors, are high aged pensioners or are without employment. The small sizes coupled with the fact that traditional methods are not productive result in an insufficient income. This perhaps can be resolved by developing products with greater added value and finding complementary income sources. Overall, 71% of companies and 57%

of individual farms used arable land in 2013. While the area of arable land used by business organisations reduced continuously (10% on average), the area of land used by individual farms showed an increase of 15%. The number of business organisations dealing with crop production increased by 10% from 2010 to 6023 despite the reduction in total land size (1%). According to data from the Hungarian Central Statistical Office (HCSO), companies produced wheat on 1.11 million hectares and increased land used for leguminous plants – e.g. bean and pea – production by 26% to 13300 hectares [Hungarian Central Statistical Office 2014].

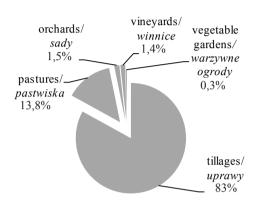


Figure 1. Distribution of total land used by cultivation sector in 2013 *Rysunek 1. Rozkład gruntów ogółem użytkowanych przez sektor hodowli w 2013 roku* Source/Źródło: [*Farm Structure...* 2013] Figure 1 shows the distribution of total land used by the cultivation sector in 2013.

The number of individual farms dealing with plant cultivation showed a 12% decrease, the area used however showed a 2% increase compared to 2010. The area used for wheat production increased by 4% in 2013, whilst the area increase was 9% in industrial crop production and 5% in silage production, respectively. The area used for vegetables and leguminous plant production was reduced by 20% and 6% respectively in individual farms. Orchards were cultivated by 15% of the individual farms and 10% of business organisations, their share hardly changing since the 2010 census. The average area used by companies declined by 2%, while that of private farms increased 19%, reaching 0.8 hectare. The number of business organisations cultivating orchards grew by 7%, whereas the number of private farms was reduced by 26%. Vineyards were more typical for individual farms, 18% produced wine while only

8% of commercial organisations cultivated vineyards (no change since 2010). The average area of land usage for business organisations reached 20 hectares (a growth of 3%) while the respective figure for individual farms was 0.5 hectare (a growth of 15%). The number of commercial organisations active in wine production fell by 2% whereas individual farms declined by 21% [*Farm Structure*... 2014].

The number of business organisations using pastures fell by 6% but typical area usage increased to 4 hectares. An 18% decrease can be observed in the number of individual farms using pastures, this was coupled with an increase of 20% in the area of land used. Out of commercial organisations 3% used less than 1 hectare while for individual farms this was true for two-thirds of the cases. Although most commercial organisations manage 20-50 hectares – similar to 2010 – individual farms are most likely to use less than 1 hectare. The typical farm size for business organisations exceeds 300 hectares (one quarter of the firms manage 84% of agricultural lands). Altogether 76% of the overall area managed by individual farms is used in units with sizes of 10-300 hectares representing 10% of the total numbers [*Farm Structure*... 2014].

Material and methods

Tracking and analysing economic and social changes in the agricultural sector is vital for decision makers, sectoral parties, professional and advocacy organisations and research institutions. Collected statistical data serve as a basis for domestic decision making and provide the foundation of strategy formulation in rural development, agro-environmental protection and sustainable agriculture. This channels vital information for the development and implementation of the EU's Common Agricultural Policy (CAP) [Baranyai et al. 2013]. Most of the statistical surveys are based on structural economic surveys (Farm Structure Surveys, FSS). The system is composed of interdependent measurements, the complete decadennial surveys and the interim representative structural surveys. The Central Statistical Office completed the structural survey of 2013 [*Farm Structure*... 2014] abiding to European Commission's decrees (1166/2008/EC, 1165/2008/EC, 138/2004/EC, 543/2009/EC) which followed the 2010 general agricultural survey [*Farm Structure*... 2014].

Researchers at the Research Institute of Agricultural Economics conducted a survey among SMEs, and found (similarly to results from the UK and USA) that the primary reason for land purchases was the intent to increase farmsize, followed by the perception of a good bargain, after which the objectives of maintaining wealth, providing fodder for livestock and the potential for higher subsidies were listed. On the list of reasons for selling land the most frequent answers in declining order were: the distance from the location of residence, separation from other parts of land property, liquidity problems, market uncertainty, switching to life rent, expropriation, health status [Kapronczai 2006].

To measure concentration of land use the Gini coefficient was calculated.

Results

Land rental is a typical and characteristic factor in land use due to the separation of owners and farmers. The rental rate is the highest for average and better quality arable land (62.0%), while the rental rate of lower quality arable land is 4.8% less. As far as categories of holdings are concerned land use of cooperatives is almost totally (93%) based on land lease. Tenancy has a major role 85.3% for agricultural enterprises without legal entity, and exceeds 60% for agricultural enterprises with legal entity. Full or part time status agricultural entrepreneurs rent 44 and 36 percent of the cultivated land respectively, while primary producers rent 25% of their area.

The degree of inequality in agricultural land use is high for both farm types. Nonetheless, it is higher for individual farms and increased from 2003 to 2013. In 2013 9.9% of individual farms cultivated 82.7% of the agricultural land area used by this segment. The Gini coefficient thus represents a high degree of land use concentration in Hungary. The value of the coefficient was 72.6% in 2003, and reached 75% in 2005. In 2010 a 0.3% point increase could be observed reaching 74.4% in 2013 (Fig. 2).

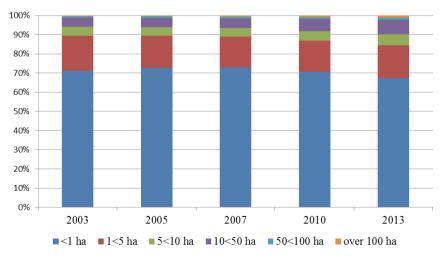


Figure 2. Distribution of (individual or family) farms by land size from 2003 to 2013 Rysunek 2. Rozkład gospodarstw (indywidualnych lub rodzinnych) według grupy obszarowej w latach 2003-2013 Source: own calculation based on [Farm Structure... 2014] Źródło: opracowanie własne na podstawie [Farm Structure... 2014]

The price of agricultural land increased by more than 11.6% in the first three quarters of 2013, the value of the nominal index reached 255.6 points from 100 in the base year (2000), and 229 in 2012 (Fig. 3).

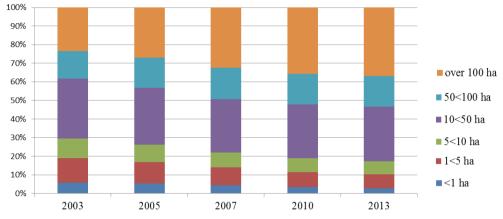


Figure 3. Distribution of land size used by (individual or family) farms from 2003 to 2013 *Rysunek 3. Rozkład wielkości gruntów użytkowanych w gospodarstwach (indywidualnych lub rodzinnych) w latach 2003-2013*

Source: own calculation based on [Farm Structure... 2014] Źródło: opracowanie własne na podstawie [Farm Structure... 2014]

The growth slightly declined compared to 2012 (when the year-on-year growth reached 13.2%), but the overall growth trend remained unchanged, which also means that the age of "new hope" in land markets continues. The steady growth in prices, which was seen even during the years of the first decade of the new millennia, continued in 2013 as well. According to values of the FHB Agricultural Land Price Index, by the end of 2013 land prices had risen by nearly 11%, from last year's index value of 202.3 to 224 (Fig. 4).

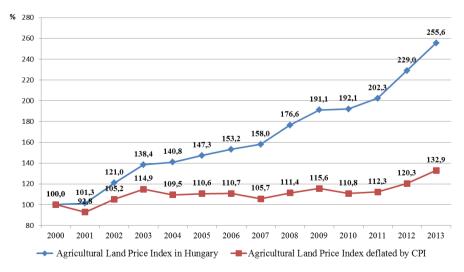


Figure 4. The evolution of Agricultural Land Price Index in Hungary *Rysunek 4. Ewolucja wskaźnika cen gruntów rolnych na Węgrzech* Source/Źródło: FHB Index calculations, FHB Mortgage Bank Plc [2013]

Conclusions

- 1. The consolidation of agricultural land ownership and land use in Hungary will proceed in the medium run. Further progress can be achieved on a long term basis, when relevant regulations of general land consolidation will be improved within the frame of the Land Consolidation Strategy.
- 2. The development of the land market will continue as the result of medium and long term achievements in the progress of land consolidation.
- 3. Major changes are expected in land policy with the abolition of the derogation period (2014) and the Hungarian land market will also be open to foreigners.
- 4. Hungarian land policy is basically adapted to the situation; further development in the land market can lead to a land policy better suited to EU circumstances.
- 5. Land use and land ownership was diversified after the privatization of Hungarian agriculture. Small scale agricultural holdings need to be consolidated, whilst medium and large scale farming enterprises use land mostly in consolidated circumstances.
- 6. Voluntary spontaneous land consolidation can provide some local results, state-involvement has to promote and facilitate nation-wide, comprehensive consolidation.
- 7. Behind land concentration one can frequently find the motive to exploit the land based subsidy system and to achieve a size allowing for the optimal profitability of crop production. The concentration of land use stimulates demand for land and contributes to increasing prices in the land market.

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Streszczenie

Śledzenie i analiza zmian ekonomicznych i socjalnych w sektorze rolnym jest niezbędne dla osób podejmujących decyzje, organizacji zawodowych oraz instytucji badawczych. Zebrane dane statystyczne służą za podstawę do podejmowania lokalnych decyzji oraz formułowania fundamentalnej strategii dotyczącej rozwoju rolnego, rolnośrodowiskowej ochrony oraz rolnictwa zrównoważonego. W badaniach wykorzystano dane z bazy statystycznych, aby ocenić zmiany w użytkowaniu ziemi oraz jej cen rynkowych. Ze sprawozdania Węgierskiego Głównego Urzędu Statystycznego z 2013 roku wynika, że udział organizacji biznesowych użytkujących grunty uprawne wzrosła o 7 p.p., podczas gdy prywatne gospodarstwa rolne zwiększyły swój udział o 2 p.p. Badanie pokazały, że koncentracja gruntów zwiększa popyt na nie, ale przyczynia się także do wzrostu cen.

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