

FACTORS INFLUENCING THE PRICE OF ARABLE LAND IN HUNGARY

K. BODNAR¹, Z. I. PRIVOCZKI²

¹ Hungarian University of Agriculture and Life Sciences, Szarvas, Hungary

² Agro-Assistance Kft., Csongrad, Hungary

Corresponding author: bodnar.karoly.lajos@uni-mate.hu

Abstract. *In this study, we looked for the answer to the question of what factors influence the development of the price of arable land with the help of Hungarian statistical data. Regular meeting with agricultural entrepreneurs also was source of actual information. The price of land in Hungary is rising by 5-10% on average every year. The average market price of arable land per hectare increased to HUF 1,969 million in 2021, which is a 14% increase compared to the previous year (HUF 1,727 million / ha) compared to last year. The average rent for arable land last year was HUF 81,957. The elimination of undivided areas has been preceded by huge expectations, but market experience shows that, despite the opportunity, the complicated administrative process is likely to deter many. Among the factors examined, natural factors (such as land quality, soil type, location, topography, natural waters) and economic and social factors (e.g. infrastructure, markets, labour supply, subsidies) are important. Prices are significantly affected by the irrigability of the area, for the development of which significant subsidies are currently available. It can also be considered a value-preserving investment for capital-intensive companies. The demand-supply relationship is modified by the fact that the pre-emption system in the current land trade legislation (Act CXXXII of 2013 on the turnover of agricultural and forestry land) pursues the objective that land ownership should be acquired primarily by local farmers.*

Keywords: *land price, land trade, natural factors, irrigation, economic factors*

INTRODUCTION

Land acquisition has been a fast-growing process in the countries of Central and Eastern Europe, which has intensified since the accession of these countries to the European Union and the outbreak of the 2007-2008 economic crisis. Privatization was not limited to arable land; it went further in gaining the richness of forests, hunting and fishing reserves, water resources (CONSTANTIN et al. 2017).

A study confirmed that in Hungary and Poland, after 1989, socio-political regime change and new socio-economic conditions contributed significantly to land use and ownership transformation. In Poland, land use change has led to a reduction in agricultural land and an increase in the size of forest and uncultivated land. Due to the decrease in land use intensity, the area of agricultural land has been steadily declining in recent decades and the forest area has been increasing (CEGIELSKA et al. 2018).

Romanian farmers have become important players in the real estate market, and the new changes have created favorable conditions for at least two things. One is that foreign investors were considered to have hidden economic interests. Due to the restrictions introduced, it was practically assumed that the foreign buyer had “bad intentions”. Secondly, Romania can be sued by the European Commission, as was the in case with Hungary in 2017. They argued that the Hungarian government had impeded the free movement of capital within the European Union through “indirect discrimination” in the sale of agricultural properties. (PETRESCU-MAG et al. 2021).

After several years of bans on the acquisition of agricultural land by EU citizens and legal entities, agricultural land prices in Croatia remain among the lowest in the European Union (JOSIPOVIC, 2021). Purchasing power in Croatia and the low productivity of Croatian farmers cannot be solved by banning the acquisition of agricultural land by foreigners. Similarly, the specific legal regulation of family farms without additional national subsidy

measures and structural reform cannot solve many existing problems, such as small farms due to the small size of agricultural land and the small economic size of farms.

The situation is that agricultural land was still often used for non-agricultural purposes. The gap between producer land prices and administrative land prices opens up to lower administrative land prices. In addition, if lower quality land is more expensive than better quality, it is unfair to farmers. Land is a limited natural resource and is becoming an increasingly valuable fixed asset as a result of its decline (LAZIKOVÁ et al. 2021). For the valuation of land in the agricultural region of Slovakia, without construction/development or other functional use plans, only the average base price expressed in EUR/m² is used (MUCHOVÁ et al. 2018). The Bulgarian land market is currently still developing. The purchase of land, due to its continuous increase in value, is still profitable for the owner, and there is no interest in selling or renting it (MIHAILOVA, 2022).

In terms of agricultural holdings in the period 2017-2019, the land market in the region of Vojvodina (Serbia) was mainly driven by technical efficiency and profit. Farms adjust their production strategies according to more appropriate farming methods, the quality and quantity of resources controlled. Changes in land market purchases and leases lead to an increase in land control on a farm-by-farm basis in the long run (POPOVIC et al. 2021). In Poland, legal measures were also taken to prevent speculation related to agricultural land (MARKS-BIELSKA, 2017).

The results of the research based on the land trade data of the Hungarian counties concluded that the price of the land is mainly determined by the local demand and supply of the area (TÓTH-NAÁR et al. 2018; CEHLA et al. 2021). The concentration of land is often motivated by the exploitation of the land-based support system and the achievement of a size that allows the maximum profitability of arable crop production (economies of scale). Concentration of land use increases the demand for arable land and contributes to the rapid rise in land prices (TÓTH-NAÁR et al. 2014). The economic situation in 2019 and 2020 was not the norm, and in addition to the pandemic, attention was shifted to legislation to eliminate undivided common areas. However, the 30-year steady rise in land prices has not broken; although it has slowed in some branches of cultivation, which is also characterized by an increase in the average price of around 10 percent (BODNAR et al. 2021). CIAIAN et al. (2021) found that area-based payments have a much greater impact on farmland prices than other forms of agricultural support.

In this study, Hungarian land market prices and the most important natural and economic factors affecting them were examined.

MATERIAL AND METHODS

Primary data were collected during interviews with farmers. The work was assisted by the opinions of some representatives of agricultural policy and the relevant scientific literature sources. Secondary data were obtained from the Central Statistical Office and OTP Arable Land value map releases.

RESULTS AND DISCUSSIONS

In the 1990s, the land also came into the possession of those who did not use it. Now, however, farmers have a need to buy land, and many have money for it. There were those who said that the rise in land prices would last for about an eternity, but it should not be forgotten that Hungarian prices were not even close to the level of Western Europe.

Since 2009, arable land in Hungary has been becoming more expensive. According to the data of the Central Statistical Office (KSH, 2021), the average price of arable land increased by about 3.5 times in the period from 2009 to 2020 (Figure 1), while their rents increased 2.5 times. The roughest price increase was observed in the average turnover prices of arable land, grasslands and orchards, and in the average rents of arable land, orchards and forests.

Typically for the last decade, the average market price of agricultural land has risen by almost 10 percent in 2021 as well, according to an annual land market analysis. The average market price of arable land per hectare increased to HUF 1.969 million in 2021, which is a 14% increase compared to the previous year (HUF 1.727 million/ha). compared to last year. The average rent for arable land last year was HUF 81,957. The elimination of undivided areas has been preceded by huge expectations, but market experience shows that, despite the opportunity, the complicated administrative process is likely to deter many.

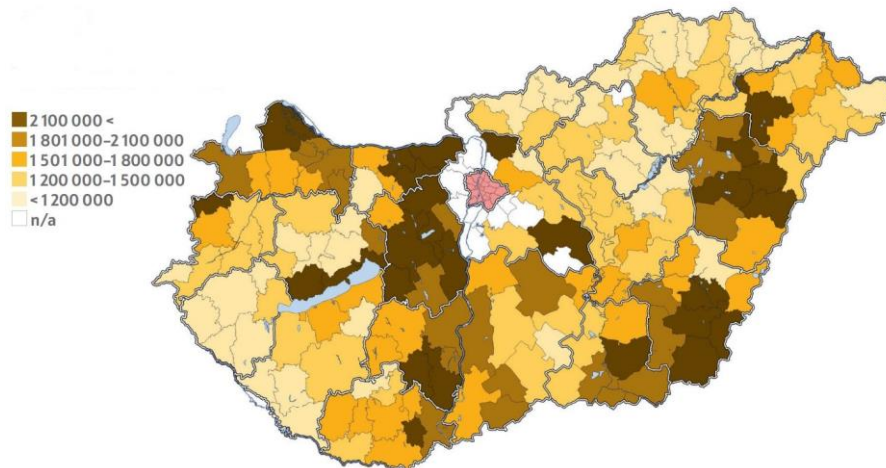


Fig. 1. Average price of all areas in HUF/hectare in 2020 (n/a: no data) (OTP, 2021)

Average land prices in Hungary

In 2021, the average market price of arable land in Hungary per hectare was HUF 1.969 million, which is a 14% increase compared to the previous year (HUF 1.727 million/ha). Apart from the average price of HUF 1.488 million/ha typical of Northern Hungary, the average price per hectare in all other regions was over HUF 1.5 million. The highest average price had to be paid to buyers in Central Hungary (HUF 2.396 million/ha), but the sellers asked for more than HUF 2 million in the Southern Great Plain (HUF 2.226

million/ha) and the Northern Great Plain (HUF 2.128 million/ha). is. The areas belonging to Budapest were again characterized by a relatively low sales number (48 units) and the highest average price of HUF 3.495 million/ha. Among the counties, the very high average price of HUF 2.5 million per hectare characterized Hajdú-Bihar (HUF 2.603 million/ha) and Békés (HUF 2.524 million/ha) counties. Under HUF 1.5 million, land was sold in Zala (HUF 1.356 million/ha), Borsod-Abaúj-Zemplén (HUF 1.442 million/ha), Heves (HUF 1.482 million/ha) and Nógrád (HUF 1.597 million/ha) counties.

Arable land

Last year, the average price of arable land exceeded the limit of HUF 2 million (HUF 2.097 million/ha), which is a 9.7 per cent increase compared to the previous year (HUF 1.891 million/ha). Here, too, average prices rose in all regions. It was the best, 17.5 percent in Central Hungary, but also 10 percent higher in Western Transdanubia. The price of arable land per hectare increased the most, by 8.2 percent, in the Northern Great Plain. Overall, last year the average price in the country was over 1.5 million HUF. As in previous years, the highest payments are made in the Southern Great Plain (HUF 2.348 million/ha) and the lowest in Northern Hungary (HUF 1.557 million/ha). Budapest generally differs significantly from the national average, this was no different last year, the average price per hectare of the 39 Budapest transactions included in the analysis was HUF 3.623 million, but an outstanding average price was also generated in Hajdú-Bihar county (HUF 2.852 million/ha).

Grassland

The grasslands were sold at an average price of HUF 1.699 million per hectare, which is an increase of 18.3 percent in one year (2020: HUF 1.436 million/ha). The highest price was requested by the sellers in the Central Transdanubia region (HUF 1.976 million/ha), while the lowest was requested in Northern Hungary (HUF 1.488 million/ha).

Orchard

An average of HUF 2.590 million per hectare had to be paid for the orchard, which is an increase of 8.5 percent in one year (HUF 2.385 million/ha). The most expensive orchards were sold in Northern Transdanubia (HUF 2.91 million/ha) for an average of almost HUF 3 million per hectare, while the cheapest ones were sold in Northern Hungary (HUF 1.906 million/ha) for less than HUF 2 million. Last year, 426 land market transactions were made, covering a total area of 686 hectares.

Vineyard

In 2021, the national average price of vineyards per hectare was almost two and a half million forints (HUF 2.496 million/ha). In regional terms, the average price above HUF 3 million was in Southern Transdanubia (HUF 3.625 million/ha) and Central Transdanubia (HUF 3.287 million/ha). while the average price below HUF 2 million was in Northern Hungary (HUF 1.812 million/ha) and the Northern Great Plain (HUF 1.842 million/ha).

Farmers' opinions on the factors influencing the price of agricultural land

Among the natural factors mentioned were the type and quality of the soil (expressed in the Golden Crown unit), but it is influenced by the geographical location, the topography, the characteristic microclimate, the proximity of surface waters, the level and movement of groundwater, the predisposition to inland water; the frequency and extent of damage caused by wild game.

Among the economic factors, the price of the area is affected by the typical supply and demand in the region, the size of the contiguous area to be sold; the branch of cultivation; distance from the settlement, markets and processing industry; the infrastructure of the area (roads, utilities, wells, irrigation canals, etc.) and the surface and subsurface transmission lines passing through the area.

As a result of the increasingly frequent drought years, the importance of irrigability has increased, and the need for areas that can be made relatively easy to irrigate has increased as a result of irrigation development resources (subsidies).

Depending on the development of the above factors, the price of some areas may differ from the average in the narrower region in both positive and negative directions.

Currently, the unusually high selling price of cereals and oilseeds is one of the reasons for the high and rising price of arable land.

Regarding the rise in land prices, there were those who explained that during the epidemic, people realized that it was not worth saving money, it was not worth becoming vulnerable to the economic situation. Therefore, they prefer to invest their savings in land.

As a result of rising inflation, buying land is a good investment because it is not depreciated and not only retains its value but also rises for years.

However, access to land for young farmers does not seem easy on the one hand, they do not have enough capital without family reunification, and on the other hand the pre-emption system in the current Hungarian land trade legislation (Act CXXII of 2013 on the turnover of agricultural and forestry land) pursues the objective of land ownership should be acquired primarily by local farmers. Unfortunately, young farmers are not included in the pre-purchase line, which is now the preferred primary ranking. If more than one person exercises their pre-emption right, a secondary order should be considered as an additional rule. Unfortunately, even in this case, young farmers are “only” in second place in the secondary ranking.

Many times, even farmers do not even know how much their land is worth, which they want to sell. Farmers do not have that much cash, and the reason for the increase in current land purchases may be that some landowners have liquidity problems.

Land prices will continue to rise in the future, the question is more about how long it will double again. According to an individual entrepreneur, if prices have doubled in ten years, they will now in five years. Those who have less land will sell it, and those who have more will rent it out.

The real big question in this connection is whether the land market will be opened up to legal persons. Because if so, there will be another land price „explosion” there.

CONCLUSIONS

The main reasons for the unbroken rise in farmland prices over the past decade are:

- higher-than-average profitability of crop production,
- area-based subsidy,
- income from the leasing of arable land for at least five years is tax-free,
- crop prices above the long-term average,
- the extremely favorable interest rate environment and the supply of funds for the purchase of arable land, as well as the lively agricultural activity of banks.

The impact of the COVID-19 epidemic on the land market is not yet clear. All in all, it can be said that, taking into account the statistics of recent years, the average price of the individual cultivated areas has increased by an average of HUF 50-130 thousand per year. Rents have risen by about 3-5 thousand forints per hectare. However, this is only a rough estimate, which can be modified in both directions by other factors influencing prices. However, it is already certain that the rise in the price of arable land will not stop in the coming years either.

BIBLIOGRAPHY

- BODNAR, K., FEHER, A., PRIVOCZKI, Z. I., 2021 - Continuous increase in the price of agricultural land in Hungary. *Agricultural Management/Lucrari Stiintifice Seria I, Management Agricol*, 23 (2): 42-46.
- CEGIELSKA, K., NOSZCZYK, T., KUKULSKA, A., SZYLAR, M., HERNIK, J., DIXON-GOUGH, R., KOVÁCS, K. F., 2018 - Land use and land cover changes in post-socialist countries: Some observations from Hungary and Poland. *Land use policy*, 78, 1-18.
- CEHLA, B., BÚZÁS, F. E., KISS, S., SZÚCS, I., POSTA, L., 2021 - Possibilities of mass valuation in land use in Hungary. *Acta Agraria Debreceniensis*, (1): 59-68.
- CIAIAN, P., BALDONI, E., KANCS, A., DRABIK, D., 2021 – The capitalization of agricultural subsidies into land prices. *Annu. Rev. Resour. Econ.* 13, 17–38.
- CONSTANTIN, C., LUMINIȚA, C., VASILE, A. J., 2017 - Land grabbing: A review of extent and possible consequences in Romania. *Land use policy*, 62, 143-150.
- JOSIPOVIĆ, T., 2021 - Acquisition of agricultural land by foreigners and family agricultural holdings in Croatia. *Journal of Agricultural and Environmental Law*, 16 (30): 100-122.
- LAZÍKOVÁ, J., RUMANOVSKÁ, L., TAKÁČ, I., PRUS, P., FEHÉR, A., 2021 - Regional differences of agricultural land market in Slovakia: A challenge for sustainable agriculture. *Agriculture*, 11 (4): 353.
- KSH, 2021 – Összefoglaló táblák. 19. Mezőgazdaság. <https://www.ksh.hu/stadat?lang=hu&theme=mez> (Downloaded: 28-03-2022)
- MARKS-BIELSKA, R., 2017 – Conditions of agricultural landprices development in Poland. *AGROFOR International Journal*, 2 (1): 109-118.
- MIHAILOVA, M., 2022 – Relationship between rent prices and agricultural land prices. *Bulgarian Journal of Agricultural Science*, 28 (1): 26–35.
- MUCHOVÁ, Z., KONC, L., PETROVIČ, F., 2018 - Land plots valuation in land consolidation in slovakia: A need for a new approach. *International Journal of Strategic Property Management*, 22 (5): 372-380.
- OTP, 2021 – OTP Termőföld értéktérkép. https://www.otpbank.hu/OTP_JZB/file/OTP_Termofold_Ertektterkep_2021.pdf (Downloaded: 28-03-2022)
- PETRESCU-MAG, R. M., PETRESCU, D. C., TODORAN, S. C., PETRESCU-MAG, I. V., 2021 - Us and them. Is the COVID-19 pandemic a driver for xenophobia in land transactions in Romania?. *Land Use Policy*, 103, 105284.

- POPOVIĆ, R., ĐOKIĆ, D., JURJEVIĆ, Ž., 2021 - What actually drives agricultural land market in Serbia North. Sustainable Agriculture And Rural Development, In: International Sustainable Agriculture and Rural Development Thematic Proceedings, 2021 February, Institute of Agricultural Economics, Belgrade, Serbia, 305-314.
- TÓTH-NAÁR, Z., MOLNÁR, M., VINOGRADOV, S. A., 2014 - Impact of land use change on land value in Hungary. Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu, 16 (6): 500-504.
- TÓTH-NAÁR, Z., SÓREG, P. Á., NAÁR, T. A., VINOGRADOV, S. A., 2018 - The investigation of factors influencing the market prices of agricultural land in Hungary. APSTRACT: Applied Studies in Agribusiness and Commerce, 12 (1033-2019-3259), 5-10.