

Dear Reader,

We would like to present you a brief summary of the results of our most recent research focusing on the real estate market soon to be published within the framework of the **OTP Value Map**. Maintaining previously introduced basic principles, methods and values of our real estate market analyses, this time we examine the **agricultural land market**.

In recent years on the Hungarian real estate market agricultural land has been the second most popular type of real estate with the highest number of sales following residential properties. Based on our previous experience and according to the analyses published so far on the market, arable land has reacted to the crisis more favourably than other elements of the sector. In the course of our survey we were looking for answers to the following questions: Is agricultural land really more crisis-resistant? How has the turnover of land evolved during the crisis? What is the price of agricultural land in different areas? Does the development of the infrastructure result in price changes regarding agricultural land, and if yes, to what extent?

Arable land forms a special category within the real estate market, because:

- it is available in limited (or actually, due to restrictions, in slightly decreasing) quantity;
- the speculative market is basically distinguished from the market of agricultural land meant for long-term agricultural production;
- its market is highly influenced by the government's political decisions (land purchase moratorium, ban on purchases by companies, pre-emption right of the state);
- substantial value increasing effect of the system of subsidies, yet any potential changes leading to greater volatility of the market prices;
- strong, almost 60% rental/lease market;
- in comparison with other segments, greater proportion of state ownership (~22% – especially high in the case of forests);
- divided, fragmented ownership structure deviating from the actual use of the land (cultivation on large parcels, yet appearance of smaller lots due to the compensation process; the proportion of parcels in undivided joint ownership is high).

Based on the above characteristics, we compiled a set of criteria for our analysis that suit the market of arable land better.

...about the method of the survey in a nutshell...

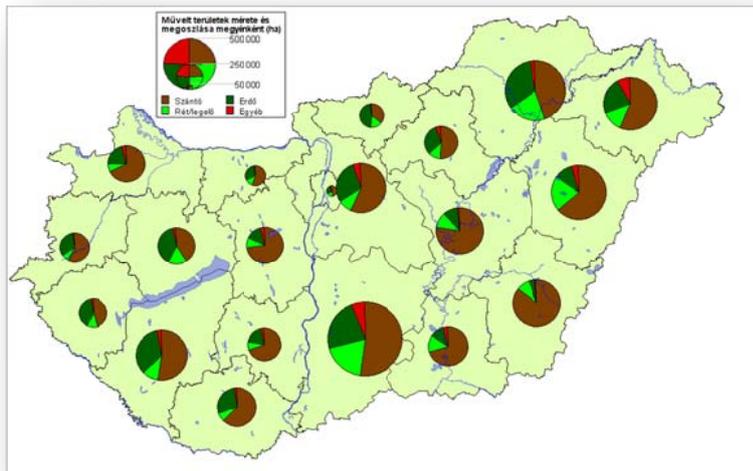
Our data reflect exclusively accomplished market transactions of land (especially ploughland and meadows-pastures). Our source was the database purchased from the National Tax and Customs Office (NAV, previously APEH). The frame of reference for our present study being primarily the period of the crisis, we focused first of all on the effects of the crisis. The survey covered the whole territory of the country—apart from Budapest—including 3155 localities and 173 statistical micro-regions as well as 19 counties.

We processed the data of altogether 315,000 transactions. We completed this in several steps, by forming territorial limits and filtering out erroneously or incompletely registered transactions. In order to reach the number of cases necessary to form regional average prices in the case of areas with incomplete data, we applied polynomial interpolation, and we substituted the pieces of information by filtering out the compound effect.

While analysing the price changes, we took the year 2008 as basis. Although due to the on-going processing by NAV of the 2010 data, at present the results cannot be considered comprehensive regarding the mentioned year, from the point of view of the actual prices and price changes, last year does provide sufficient information. We analysed the average size of sold land properties and their territorial differences based on the aggregated data of the years between 2007 and 2010. We present the current branches of cultivation relying on the most up-to-date data of the Central Statistical Agency (KSH).

Varying proportions in cultivation

83% of the territory of Hungary (almost 7.7 million hectares of land) is under cultivation, from which 59% is ploughland, one quarter of it is forests, 13% meadows and pastures, while vineyards, orchards, fishing areas etc. make up almost 4%. According to the data provided by KSH and presented on *Map 1*, the size of cultivated land is by far the largest in Bács-Kiskun county: its 720,000 hectares are almost four times larger than the agricultural territories of Komárom-Esztergom county.



From the total amount of cultivated land the proportion of ploughland is the highest in Békés county (85%), while in Nógrád this number is as low as 36%. Regarding size, the largest meadow-pasture area is in Bács-Kiskun, yet when it comes to proportion, Hajdú-Bihar is number one with its 21%, while the county with the largest forest areas (47%) can be found in the county of Nógrád .

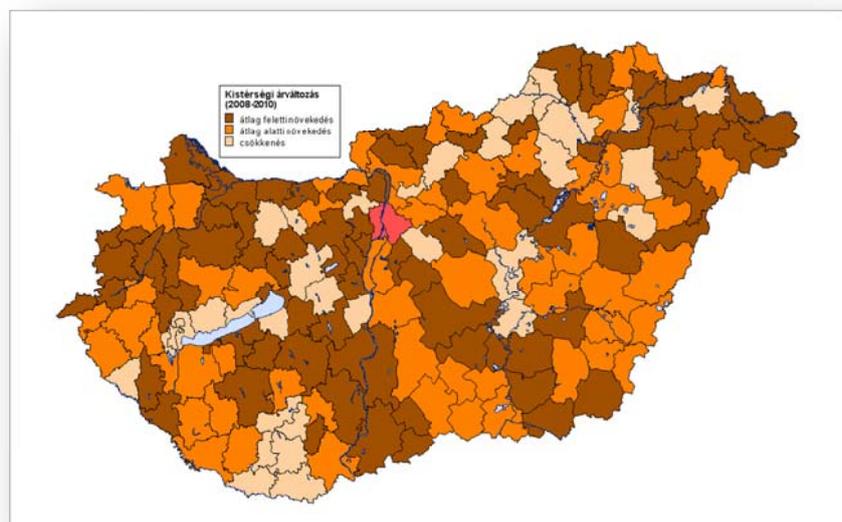
Map 1 [Size and distribution of agricultural land per county (ha); Ploughland, Meadow/Pasture, Forestry, Other]

[Below: Micro-regional price changes (2008-2010); above average; below average; price decrease]

Increasing prices all over the country

The 13% average price rise measured between 2008 and 2010 shows great territorial variation. While prices went down in 32 micro-regions, transactional prices increased in an above average grade (in quite a few cases remarkably exceeding the average value) in 81, and below average measure in 60 micro-regions.

As we can see on *Map 2*, the growth exceeding the average rate could mostly be observed in the areas close to highways, main roads, larger towns, regional centres, as well as in regions with areas which compared to the local level have a well-developed infrastructure. For example in the counties of Pest, Bács-Kiskun and Csongrád, we can clearly distinguish the path of M5 Motorway, whereas



in Pest, Fejér and Tolna counties that of the two years old M6 Motorway.

It is interesting to see, however, that between the actual price level and the price changes rather often we can observe a negative correlation. In several regions of North-Hungary which based on the price level of 2010 belonged to the cheapest quarter, the price rise exceeded 25% (e.g. in the micro-regions of Encs, Szikszó, Balassagyarmat and Bodrogköz). In some cases also the opposite is true: it was not necessarily the highest quality, best yielding, infrastructurally most well developed areas whose price grew to the greatest extent; actually, quite on the contrary, in a few cases even highly developed, explicitly good areas could show price decreases (e.g. in the micro-regions of Hajdúszoboszló, Pilisvörösvár, Székesfehérvár, Tapolca, Veresegyház, Hévíz or Siófok).

All this can be explained with the fact that an area with a low average price per hectare can reach a substantial price increase more easily than a land with high price. This explains also the light colour spot we can see in Baranya (in the micro-regions of Pécs, Sellye and Siklós). Furthermore, also the price bubbles that emerged before the crisis as well as the speculative purchases of the past years may have played an important role.

In six counties (Bács-Kiskun, Békés, Csongrád, Győr-Moson-Sopron, Tolna and Vas) we cannot find areas characterised by decreasing prices. We can witness price changes exceeding 50% in three micro-regions (Szentendre, Csenger and Gyál), where the remarkable variation resulted mostly from local processes. Most of the micro-regions with above average price rises can be found in the counties of Szabolcs-Szatmár-Bereg (9), Vas (7) and Fejér (7).

Quadruple micro-regional price differences

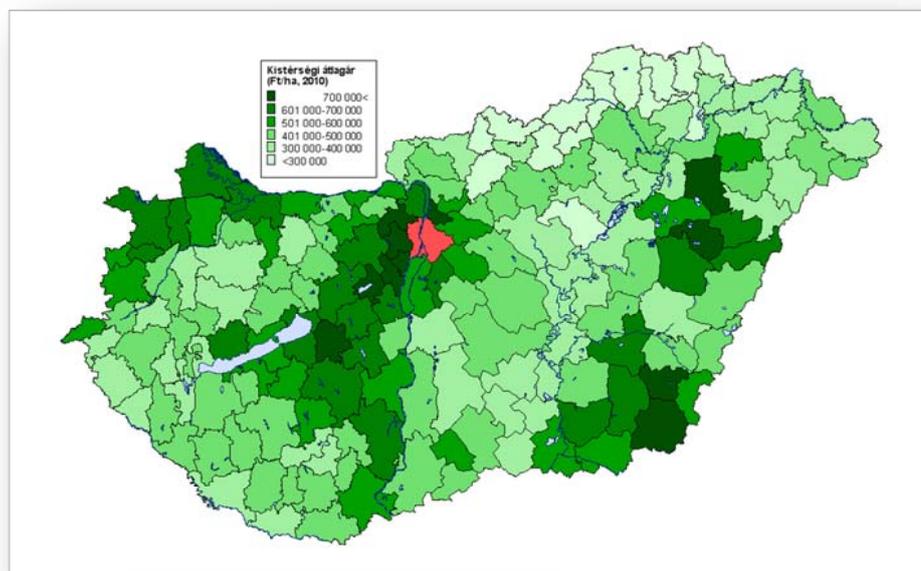
Several factors influence the price of arable land, from which the most important are the location and quality of the parcel, its branch of cultivation, its infrastructural characteristics, as well as the above mentioned speculative effects. Based on these, we can count with a minimum extremity of 150,000 HUF/ha (poorer quality pieces of arable land with bad characteristics and low golden crown value croplands, grasslands), whereas the maximum level can be ten times as high as this is (in the case of pieces of land with high prestige, good location, which can be utilised well due to their large parcels of ploughland, vineyards located in distinguished wine regions etc.).

When the data of the examined database are aggregated on the county level, the absolute differences become remarkably more moderate and the difference between the average prices of Nógrád and Fejér counties will be merely double.

	Average hectare price (thousand HUF, 2010)
Bács-Kiskun	414
Baranya	414
Békés	574
Borsod-Abaúj-Zemplén	318
Csongrád	451
Fejér	638
Győr-Moson-Sopron	581
Hajdú-Bihar	572
Heves	346
Jász-Nagykun-Szolnok	383
Komárom-Esztergom	494
Nógrád	313
Pest	576
Somogy	484
Szabolcs-Szatmár-Bereg	419
Tolna	564
Vas	478
Veszprém	468
Zala	386

At the same time the level of the micro-regions is perfectly suitable to bring to the surface the differences otherwise covered by the more homogeneous areas. **Map 3** shows well that the cheapest category includes micro-regions from only the three North-Hungarian counties (Heves, Nógrád and Borsod-Abaúj-Zemplén). In these areas the average price continues to be under 300,000 HUF/ha. The other extreme is represented by the micro-regions of Érd, Hajdúszoboszló, Budaörs and Békéscsaba with their above 800,000 HUF/ha price.

[Micro-regional average prices (HUF/ha, 2010)]



The highest category includes 4 micro-regions from Pest county (primarily due to the effects of the agglomeration), 3 from Fejér, 2 from Békés and 2 from Hajdú-Bihar county. Natural features and the characteristics of the soil play an important role in this: at country level traditionally some of the most highly appreciated pieces of agricultural land are the lands in Békés and in the Trans-Danubian plains. Besides these, the region of Balaton and the county

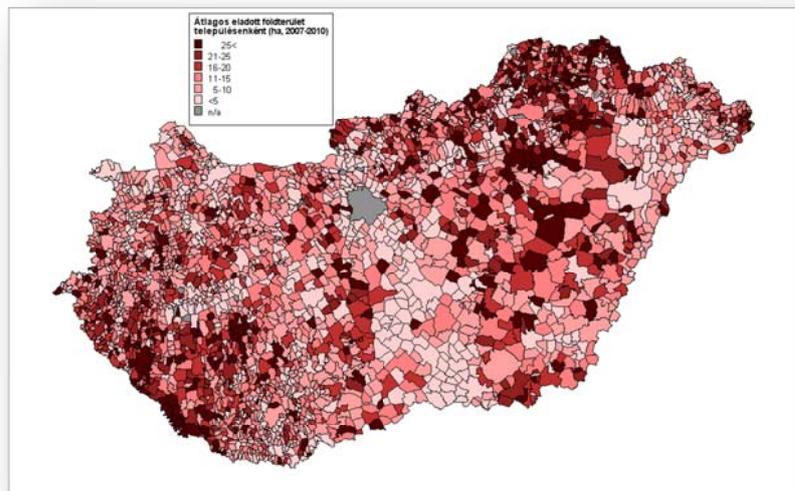
of Győr-Moson-Sopron also stand out with their high prices. On the basis of the price level, the micro-region of Mátészalka is closest to the national average price of 458,000 HUF/ha.

It is important to note that beyond the above mentioned factors, the turnover is clearly influenced also by such issues as the question of loans with subsidised interests, and the availability as well as the set of conditions of other loan schemes connected to the purchase of arable land.

From family estates to industrial agriculture

[Average size of sold parcels of land per settlement (ha, 2007-2010)]

On *Map 4*, based on 315,000 processed transactions accomplished between 2007 and 2010, we show the average size of sold parcels, broken down to the settlement level. Due to the numerous sales and purchases by co-owners, the picture is not necessarily suitable for far reaching conclusions from territorial aspects.



Based on the number of sales and purchases, in the localities marked in the darkest colour over the past four years the parcels most sought after were larger than average (in the highest category over 25 ha), whereas the lightest spots indicate sales and purchases of parcels below 5 hectares.

Summary

Although compared to the residential real estate market in the field of agricultural land there are significantly fewer market players, when it comes to the number of transactions, we can actually talk about a similar volume in both cases. Besides this fact, the reason why we found it important to present this segment of the market within the framework of the OTP Value Map is that despite Hungary's traditional close connection to agriculture this area has not been surveyed profoundly yet. Now, thanks to the layout of the results presented in the form of maps, the territorial interconnections of this market segment—which in its complexity is similar to the residential property market—are much easier to understand.

As we could see, one of the dimensions is characterised by the natural features (relief, soil, hydrography), which are then completed with the infrastructural features that are important from the aspect of the food industry, in addition to the system of subsidies and the agrarian policy. Finally, all these are often influenced by speculative factors. The variation of the prices and the total performance of the land market are influenced by the totality of all these factors.

Some of the price bubbles that emerged prior to the crisis seem to have diminished, however, apart from minor local variations, on the national scale the rising tendency of the price of arable land—underpinning the widely held opinion—seems to be unbroken.