# FARM LAND RENT IN THE EUROPEAN UNION

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## Abstract

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Great share of rented land in total utilised area as well as a significant variability of land rent and market prices of land causes a need of research activity that would assess which factors influence the land rent as well as the price of land and how significant such factor are in each state. An average land rent is significantly lower in new member states compared to EU 15 members. There is a strong dependence of land rent on the intensity of production. The influence of subsidies to land rent reports moderate to medium dependence. The same relation occurs in case of the relation of the farm income and land rent. Positive increase of production intensity was connected to lower production use of land rent i.e. a decrease of its cost/revenue ratio. This is reflected in a relative saving of land rent. States with greater land rent per ha of agricultural area usually reports greater saving. An increase of land rent in new member states of the European Union is presumed so that it will be necessary to increase the intensity of production in the corresponding way.

land rent, intensity of production, farm income, costs, subsidies

The major producers represent 55.1% of total agricultural production of the EU; 18.2% of which is France; 13.2% is Germany, 12.6 is Italy and 11.1% is Spain. Together with Netherlands, Great Britain and Poland, the share of the above mentioned states accounts for 73.5% of total production. Comparing the production specialization of states revealed that the specialization of Germany, France, Poland and Great Britain are the most similar to that of the Czech Republic. The production in these states is specialized to three main commodities that represent approximately 50% of total production. The above mentioned commodities include milk, cereals and fodder plants in Germany (47.1% of total production); milk, cereals and livestock in France (41.9% of total production); livestock, cereals and milk in Great Britain (50.2% of total production). Regarding the profit/loss in agriculture it is possible to compare France, Germany, Poland and Great Britain at a certain level of comparability. These states are the most important producers in the EU and their agricultural production structure is approximate to the production structure of the Czech Republic.

Currently, a farm rent is an important factor of land evaluation and production costs in a number of European states (Střeleček *et al.,* 2010). The main cause of the situation is the fact that rented land is an important part of total utilised agricultural area (Table I). In the EU, an average share of rented land in total utilized area amounts to 52.5%. The greatest share of rented land occurs in Slovakia (96.3%); the lowest in Ireland (16.5%). The share of rented land did not change significantly in the EU states from 2004 to 2007.

Great share of rented land in total utilised agricultural area in the EU as well as a significant variability of land rent and market prices of land causes a need of research activity that would assess which factors influence significantly the land rent as well as the price of land.

### Literature review and methodology

Literature quotes the following factors influencing the land rent and price:
- structure of production;
-  production of the main crop, e.g. wheat;
- land demand;
- agricultural subsidies;
- decoupled payment;
- level of farm incomes.

I: *Distribution of EU states according to the share of rented land in 2007*

| Share of rented land | State of the EU |
|---|---|
| 15–30% | Ireland (16.5%); Poland (27.5%); Denmark (28.3%) |
| 30–45% | Austria (31%); Slovenia (31.8%); Portugal (31.8%); Spain (33.6%); Finland (34.8%); Italy (38.8%); Netherlands (40.3%); Romania (41.5%); **Great Britain (42.6%);** Greece (43%); Latvia (44.6%) |
| 45–60% | Luxembourg (50.7%); **EU (52.5%);** Sweden (53.4%); Estonia (59.8%); |
| 60–75% | Lithuania (60.1%); Cyprus (64%); Hungary (67.2%); **Germany (70.5%);** Belgium (74.1%) |
| 75–90% | Malta (81.2%); **France (84.5%); Czech Republic (87.9%);** Bulgaria (89%) |
| above 90% | Slovakia (96.3%) |

Source: FADN

Structure of production is reported to significantly influence the farm rent. Pace *et al.* (1998) dealt with measures related to structural changes in agriculture and in livestock breeding and other factors such as consumer prices or pig density. According to the economic theory, land rent and price of land are related to common land use but to possible potential use as well. Livestock and pigs breeding in particular increase the land rent and price of land.

Caian *et al.* (2010) analysed an impact of the CAP (Common Agricultural Policy) on price of farm land and land rent in the EU states. They concluded that the implementation of the SPS (Single Payment Scheme) influenced land rent more than price of land. Economic factors influencing the decision making of farmers related to the land rent and farm size are analysed by Chambers and Phipps (1988). According to their study, production technology, entrepreneurial possibilities and personal preferences are the most important factors. The share of rented land was shown to be negatively related to subsidies, land rent rate and positively related to entrepreneurial possibilities and technological development. Boinon *et al.* (2077) also discussed the impact of the Common Agricultural Policy revisions to land rent and land market. They concluded that subsidies increase the land demand influencing the rent rate and land price.

Hamza and Miskó (2007) described setting the land rent in Hungary at the time of the EU accession. Land rent is fixed to soil quality and the stock exchange price of wheat in the middle of the summer. A number of land owners do not agree with such system. They would prefer fixed land rent and a land rent should be paid as a certain percentage of the subsidies, mainly 40–50%. Stoyneva (2007) pointed out that the situation is similar in Bulgaria. There are no significant differences in the land rent among regions. The land rent is primarily related to farm incomes. The rent rate is mainly influenced by the demand and neutral to the supply. The rent represents more than 40% of gross production in a number of developing countries. Happe and Balmanna (2003), Roberts *et al.* (2003), Lence and Mishra (2003), Barnard *et al.* (2001) and Featherstone and Baker (1988) proved a positive relation of direct payment to farm land rent. Clark *et al.* (1993) discussed the development of market price of land and land rent and factors that influence them.

According to the economic theory, coupled and decoupled payments have different impacts on agricultural rental values because of the different production volumes associated with these payments. Patton *et al.* (2008) stated that theoretically, the farm rent is supposed to be a function of expected market returns and associated direct payment. The impact of direct coupled and decoupled payments was analysed in 1994–2002 in Northern Ireland. The results of this study showed that the impact of direct payments on rental values depends on the type of payment. Direct payments to the sheep sector are fully capitalised in land rent while those to the cattle sector are not. This is attributed to the fact that sheep enterprises have low other costs. Decoupled payments are more capitalised in the input prices. The decoupled payments in less favoured area payments are fully capitalised into rental values.

Rental values of the EU states can be taken from three sources: first of all it is the Eurostat Economic accounts for agriculture, followed by the DG AGRI and the FADN. The following problems are dealt with: a comparison of rental values in the EU states, expressing the share of land rent in costs, share of land rent in incomes, impact of decoupled payments in rental values and comparison of the difference in the intensity of production so that member states could reach the same share of land rent in costs.

## RESULTS AND DISCUSSION

### Rental values in the EU states

Land rent in the EU member states is highly variable. The range of land rent per ha is equal to 803 EUR/ha. The ratio of the highest and the lowest land rent is expressed by the coefficient of range, $Kr = 82$. Grouped frequency distribution of land rent according to its value revealed a significant difference between new and old member states. Land rent of new member states amounts to 100 EUR/ha, on the other hand rental values of old member states is two or more times greater. It is presumed that land rent in new member states will come close to land rent in old member states after the unblocking to the land market. In the Czech Republic, there is the fifth lowest land rent in the EU; an average rental value amounts to 150.4 EUR/ha in the EU (Table II).

II: *Classification of member states according land rent in 2007*

| Land rent [EUR/ha] | State of the EU |
|---|---|
| Less than 50 | Estonia (9.8); Latvia (13.1); Slovakia (25.9); Lithuania (27.6); **Czech Republic (43.5)**; Poland (49.3) |
| 50–100 | Bulgaria (55.5); Portugal (59.1); Slovenia (66.6); Romania (79.9); Hungary (80.6); Malta (88.8) |
| 100–150 | Spain (104.3) |
| 150–200 | **EU (150.4); Great Britain (150.8); France (152.4)**; Cyprus (166.1); Sweden (168.6); Finland (182.7); Luxembourg (193.1) |
| 200–250 | Austria (206.9); Italy (207.8); **Germany (220.7)**; Belgium (226.6); Ireland (241.1) |
| More than 250 | Greece (262); Denmark (597); Netherland (812.8) |

Source: FADN

## Share of land rent in total output

Share of land rent in total output is characterised by a cost/revenue ratio (land rent in EUR per ha / production intensity in EUR per ha). Similar to land rent costs per ha, cost/revenue ratio of land rent has a wide range. Land rent per 100 EUR of production ranges from 0.39 to 6.82 EUR. Regarding the Pareto ABC analysis, cost/revenue ratio of land rent may be classified as the C group with insignificant impact on the profit/loss of a farm. Comparing the table of land rent per ha with cost/revenue ratio of land rent reveals that the hypothesis that states with high land rent per ha would have high cost/revenue ratio of land rent does not fully apply.

In Poland, Latvia and Estonia, very low land rent costs per ha cause very low cost/revenue ratio of land rent. In the Czech Republic and Slovakia, these costs are not balanced by corresponding outputs so that the cost/revenue ratio of land rent amounts to 2.84% in Slovakia and to 3% in the Czech Republic (Table III). In Bulgaria, low land rent cost per ha is followed by the second highest cost per 100 EUR of production (6.40 EUR). On the other hand, Netherlands with the highest land rent costs per ha is a state with low cost/revenue ratio of land rent ($n_p$ = 2.74%). Intensity of production that is not corresponding to land rent costs per ha significantly influences the cost/revenue ratio of land rent in a number of states.

## Share of land rent in farm income

Without a doubt, land rent belongs to production cost so that it impacts the profit/loss. For that reason it should not be measured with the farm income. However, some of the above mentioned studies dealt with this issue. Assessing the share of land rent in income is of an instructive character as it presents how much will the land rent draw off the farm income although it is necessary to consider that the share of land rent in income is related to the rental value and total production profitability. Share of land rent in farm income is rather balanced in

III: *Distribution of EU states according to cost/revenue ratio of land rent in 2007*

| Cost/revenue ratio of land rent | State of the EU |
|---|---|
| Less than 1% | Malta (0.4%); Poland (0.9%); Latvia (0.9%); Estonia (0.9%) |
| 1–2% | Slovenia (1.1%) |
| 2–3% | Portugal (2.1%); Italy (2.3%); Spain (2.4%); Lithuania (2.4%); Netherlands (2.7%); Cyprus (2.7%); Slovakia (2.8%); Austria (2.9%) |
| 3–4% | **Czech Republic (3.0%)**; Romania (3.2%); Belgium (3.6%) |
| 4–5% | **EU (4.0%)**; Finland (4.04%); Ireland (4.2%); Greece (4.2%); Hungary (4.3%); **Great Britain (4.3%)**; Denmark (4.7%) |
| 5–6% | Luxembourg (5.1%); Sweden (5.5%); **Germany (5.99%)** |
| More than 6% | Bulgaria (6.4%); **France (6.8%)** |

Source: FADN

IV: *Distribution of EU states according to share of land rent in farm income in 2007*

| Land rent/income | States of the EU |
|---|---|
| Less than 10% | Malta (1.0%); Poland (2.4%); Latvia (2.7%); Estonia (3.0%); Slovenia (4.0%); Spain (4.1%); Lithuania (4.5%); Italy (4.8%); Portugal (5.3%); Greece (6.1%); Austria (6.6%); Ireland (8.6%); Cyprus (9.0%) |
| 10–20% | Finland (11.7%); Belgium (12.4%); Luxembourg (15.4%); **Great Britain (18.3%)** |
| 20–30% | **Czech Republic (23.1%)**; Netherlands (23.8%); **France (24.9%)**; Hungary (26.0%); **Germany (27.5%)**; Sweden (30.0%) |
| More than 30% | Slovakia (122.5%); Denmark (480.1%) |

Source: FADN
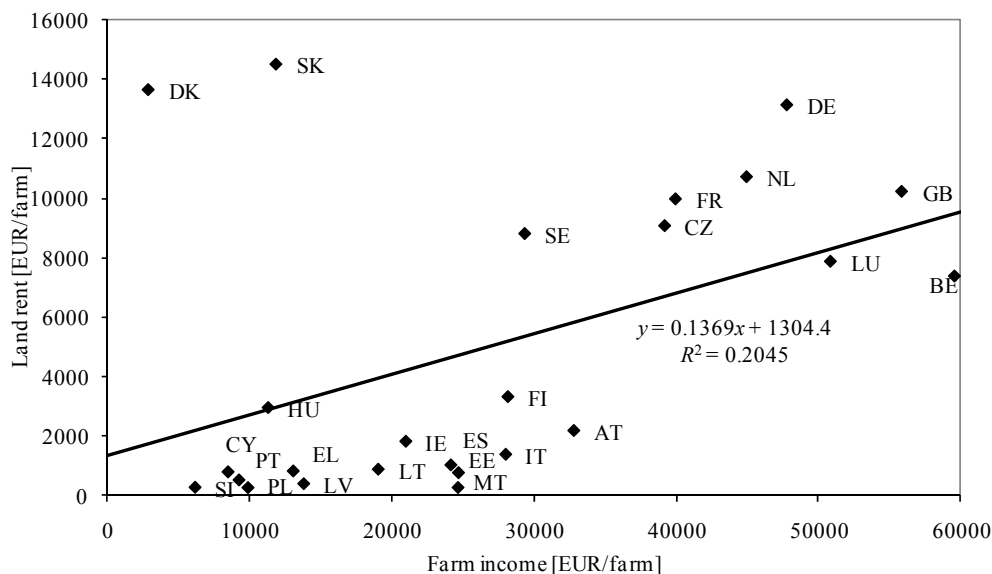
1: *Relation of land rent and income in the EU member states in 2007*
Source: FADN

the Czech Republic and developed states (Table 4) with the correlation coefficient between land rent and incomes equal to 0.45; this means moderate to medium statistical dependence (Fig. 1).

### Share of land rent in subsidies

Dependence of land rent on subsidies is discussed in a number of studies; mainly the impact of decoupled payments. Correlation coefficient ($r = 0.4$) reveals moderate to medium dependence. Subsidies increase the farm profitability so that it is possible to agree with these studies that consider subsidies to be an important factor of land rent increase. This relation would be possible to present better in a classification of farms according to the LFA where subsidies significantly influence the output.
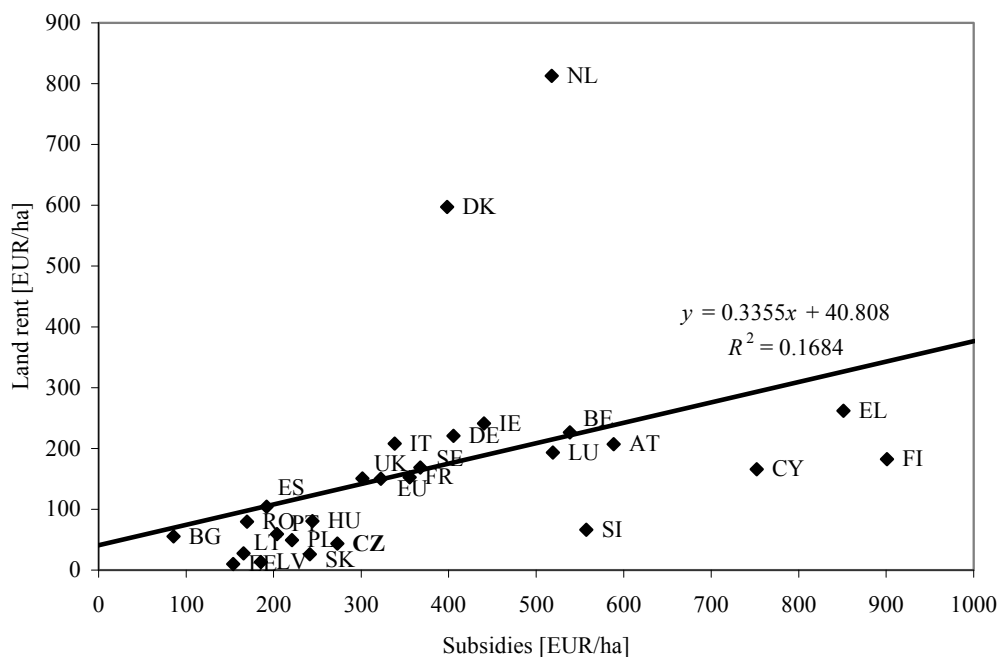


2: *Relation of land rent and subsidies in the EU in 2007*
Source: FADN

V: *Relation of land rent (in EUR/ha) and each factor in 2005–2007*

| Factor | Year | Regression coefficient ($b$) | Constant ($a$) | Correlation coefficient ($r$) | Coefficient of determination ($R^2$) |
|---|---|---|---|---|---|
| Intensity of production [EUR/ha] | 2005 | 0.081 | 9.46 | 0.866 | 0.750 |
| | 2006 | 0.073 | 22.05 | 0.881 | 0.777 |
| | 2007 | 0.070 | 18.58 | 0.861 | 0.742 |
| Farm income [EUR/ha] | 2005 | 0.189 | 69.53 | 0.529 | 0.280 |
| | 2006 | 0.203 | 64.90 | 0.565 | 0.319 |
| | 2007 | 0.142 | 83.28 | 0.398 | 0.158 |
| Share of rented land (%) | 2005 | –2.508 | 292.74 | –0.316 | 0.100 |
| | 2006 | –2.284 | 288.14 | –0.271 | 0.073 |
| | 2007 | –2.429 | 294.91 | –0.298 | 0.089 |
| Total subsidies [EUR/ha] | 2005 | 0.361 | 39.24 | 0.416 | 0.173 |
| | 2006 | 0.444 | 3.30 | 0.475 | 0.225 |
| | 2007 | 0.336 | 40.72 | 0.410 | 0.168 |

Source: Own calculation

Classification of factors according to their impact revealed that the intensity of production (Table V) is the most important. The intensity of production is connected with soil fertility in a certain way.

Relations with high correlation coefficient are associated with low regression coefficient; on the contrary relations with low correlation coefficient are associated with high regression coefficient (Table V). The dependence of land rent on intensity of production was high in all years; 74–77% of changes of land rent can be explained by changes in production intensity. However, an increase of production intensity by 1 EUR meant an increase of land rent by 0.07–0.08 EUR. A land rent increase was approximately 10 times less compared to the intensity of production.

Correlation coefficient of total subsidies influence on land rent was fixed at 0.4–0.5. In such case, moderate to medium high statistical dependence occurs; 16–22% of land rent change may be expressed by a change of subsidies (Fig. 2). A change of land rent corresponding to a change of subsidies by 1 EUR amounts to 0.34–0.44 EUR; i.e. more than one third of subsidies proceeds into land rent.

Also the relation of land rent and farm income is connected to moderate to medium statistical dependence ($0.40 < r < 0.57$). A change of income by 1 EUR corresponds to a change of land rent by 0.14–0.20 EUR. Figure 3 describes the dependence of share land rent in farm income on farm income. The correlation coefficient ($r = –0.29$) reports low dependence.



$$y = -0.002x + 78.765$$
$$R^2 = 0.082$$
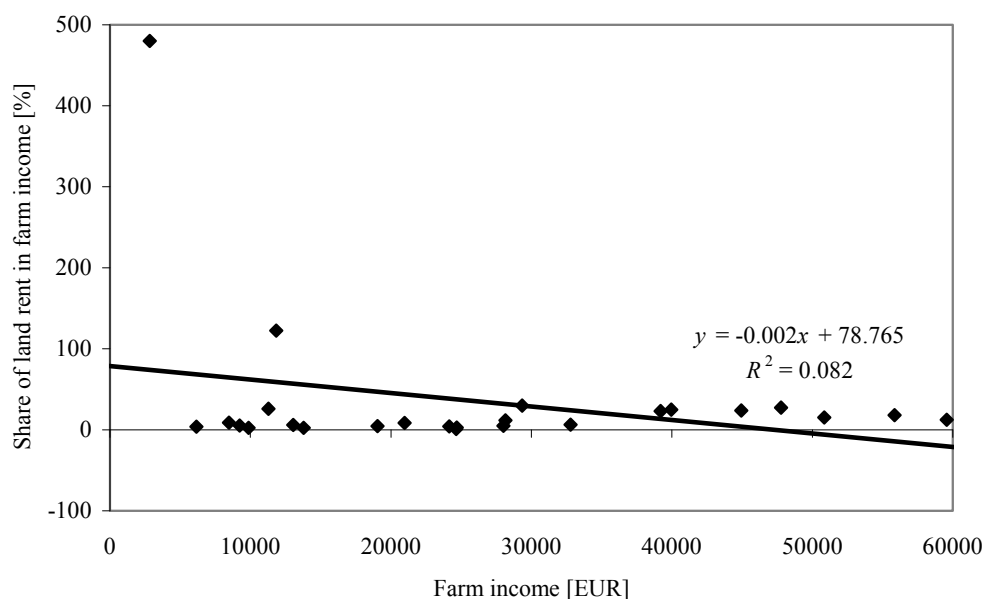
3: *Relation of share of land rent in farm income and farm income in the EU states in 2007*
Source: FADN

**Influence of land rent and production intensity on cost/revenue ratio of land rent and relative saving or overrun of land rent cost**

Regarding the cost allocability, land rent cost is regarded as fixed costs and its impact on unit cost and cost/revenue ratio results from land rent production use. In this respect, it is useful to divide total change of land rent to the influence of production intensity and the influence of cost/revenue ratio of land rent. Their relation enable assessing if the development of land rent is fully absorbed in the development of production intensity or if the cost/revenue ratio of land rent influences the dynamics of the profit/loss. Total change of land rent can be divided in a change due to a change of production intensity and a change due to cost/revenue ratio of land rent. The following relations apply:

$$\Delta P | n_p = P_{2007} - P_{2005} \times i_{IV}.$$

$$\Delta P | IV = P_{2005} \times (i_{IV} - 1)$$

$$\Delta P = \Delta P | n_p + \Delta P | IV,$$

where:

$\Delta P$......... total change of land rent per ha [EUR/ha],

$\Delta P | n_p$.... change of land rent due to cost/revenue ratio of land rent [EUR/ha],

$\Delta P | IV$... change of land rent due to production intensity [EUR/ha],

$n_p$........... land rent cost revenue ratio,

$IV$.......... production intensity [EUR/ha], $i_{IV}$ = index of production intensity.

Relative saving of land rent will bring a relative profit increase; on the other hand relative overrun of land rent will bring a relative profit decrease.

Classification of states according to a relative change of land rent due to intensity of agricultural production noticed differences in the economy of land rent in old and new states of the EU. Most new

VI: *Relative change of land rent due to production intensity dynamics*

| $\Delta P | IV$ [EUR/ha] | States of the EU |
|---|---|
| Less than 0 | Greece (−25) |
| 0–10 | Estonia (1.3); Portugal (1.8); Latvia (2.1); Poland (6.9); ČR (7.4); Slovakia (7.5); Lithuania (8.1) |
| 10–20 | Hungary (11.2); Italy (12.2); Slovenia (12.9); Spain (18.8); France (19.0) |
| 20–30 | Luxembourg (23.0); Belgium (23.1); Great Britain (27.1); Ireland (27.9) |
| 30–40 | Cyprus (31.6); Sweden (33.4); Finland (38.8) |
| 40–50 | Austria (45.3) |
| Above 50 | Germany (53.5); Denmark (82.7); Netherlands (229.7) |

Source: Own calculation
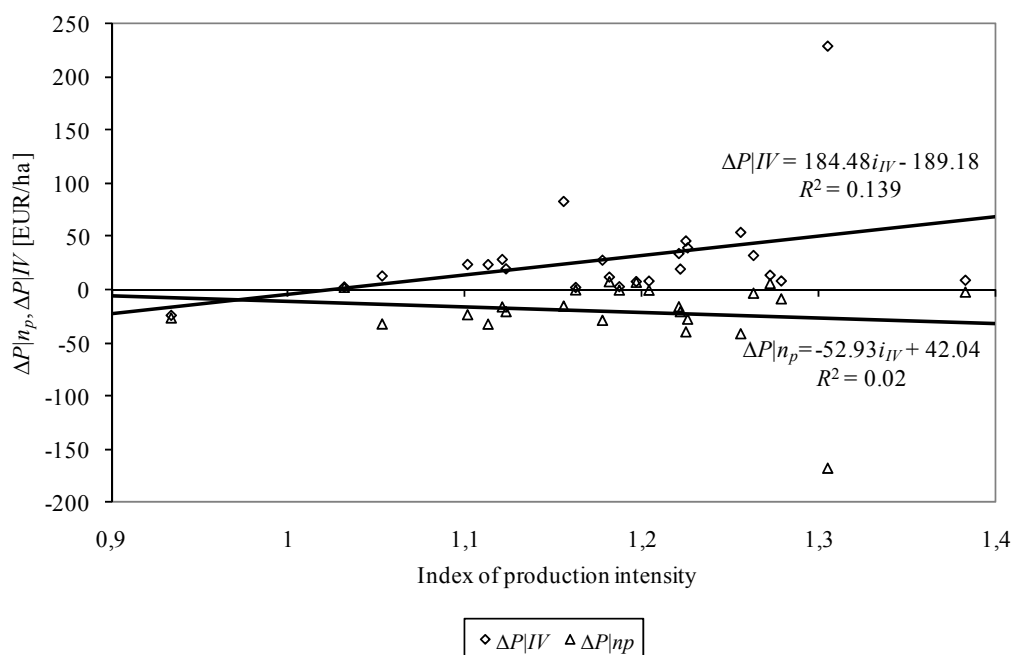


4: *Relation of production intensity index and relative change of land rent due to production intensity and change of land rent due to cost/revenue ratio of land rent*
Source: Own calculation

VII: *Relative change of land rent due to rent cost/revenue ratio of land rent*

| $\Delta P|n_p$ [EUR/ha] | States of the EU |
|---|---|
| Less than –40 | Netherlands (–168.7); Germany (–41.3) |
| –40 to –30 | Austria (–39.5); Luxembourg (–32.2); Italy (–32.1) |
| –30 to –20 | VB (–28.6); Finland (–27.4); Greece (–26.3); Belgium (–23.2); France (–20.3); Spain (–20.4) |
| –20 to –10 | Ireland (–15.8); Sweden (–15.7); Denmark (–15.1) |
| –10 to 0 | Slovakia (–8.3), Cyprus (–2.9), Lithuania (–1.8) |
| 0 to 10 | Czech Republic (0.03); Latvia (0.1); Estonia (0.2); Portugal (2.7); Slovenia (6.4); Poland (7.5); Hungary (8.1) |

Source: Own calculation

VIII: *Ratio of supposed and real production intensity for supposed land rent cost/revenue ratio of 4%*

| Ratio | States of the EU |
|---|---|
| Less than 0.5 | Malta (0.10); Poland (0.21); Latvia (0.22); Estonia (0.23); Slovenia (0.28) |
| 0.5 to 0.75 | Portugal (0.52); Italy (0.58); Spain (0.59); Lithuania (0.60); Netherlands (0.68); Cyprus (0.69); Slovakia (0.71); Austria (0.74) |
| 0.75 to 1.0 | Czech republic (0.75); Romania (0.80); Belgium (0.91) |
| 1.0 to 1.25 | Finland (1.01); Ireland (1.04); Greece (1.05); Hungary (1.07); Great Britain (1.09); Denmark (1.17) |
| 1.25 to 1.50 | Luxembourg (1.28); Sweden (1.37); Germany (1.50) |
| Over 1.50 | Bulgaria (1.60); France (1.71) |

Source: Own calculation

states of the EU reports low influence of production intensity on land rent. This is primarily caused by low rental values in 2005. The old member states report significantly higher land rent per 1 ha so that the influence of production intensity on land rent dynamics is more important. In states with the highest land rent (Germany, Denmark, Netherlands), the change of production intensity causes great increase of land rent ranging between 53.5 and 229.7 EUR/ha. The dependence of production intensity index and relative change of the cost/revenue ratio of land rent is characterized by the correlation coefficient of $r = 0.37$ with a moderate statistical dependence. Low correlation coefficient is primarily a result of great variability of dependent variable (Fig. 4).

In 2005–2007, relative change of land rent due to cost/revenue ratio of land rent depended on the ratio of production intensity index and land rent index. In the states of our study, the production intensity index amounted to 116%, the land rent index amounted to 103%. An average cost/revenue ratio of land rent of the EU decreased in 2005–2007 and the relative saving of 22.2 EUR/ha has been reached. The relative changes of land rent due to cost/revenue ratio of land rent in the EU states are presented in Table VII.

Relative change of land rent costs due to different cost/revenue ratio of land rent reported reversed tendency compared to the influence of agricultural production intensity. Positive increase of production intensity brought greater production use of land rent connected to a decrease of its cost/revenue ratio. This will reflect in a relative saving of land rent

as presented in Table VII. States with greater rental values per ha of farm land usually report greater savings. An increase of land rent can be expected in new states of the EU. If rents are supposed to be compensated it will be necessary to increase the intensity of production in the corresponding way. The following table will present the production increase necessary to keep the 4% cost/revenue ratio of land rent, i.e. the average of the EU (Table VIII).

In the EU, an average cost/revenue ratio of land rent amounted to 4% in 2007. To reach the same land rent cost revenue ratio an intensity of production has to be changed within given land rent per ha. Table VIII present the ratios if production intensity within the cost/revenue ratio of land rent of 4% and real production intensity.

Sixteen states of the EU have no problems with reaching the land rent of 4%. In these states, the real agricultural production intensity is sufficient to keep cost/revenue ratio of land rent less than 4% for given land rent. On the other hand, five states would reach the appropriate cost/revenue ratio within relative increase of production intensity ranging from 28 to 71%. Impossible or almost impossible relative increment of production does not allow to reach an average EU cost/revenue ratio of land rent.

## CONCLUSION

Great share of rented land significantly influence great land rent cost of farms in the EU. Price inertia related to land rent is connected with great capitalization rate significantly differing from the real value. According to cited literature, the paper

assessed the influence of production intensity, subsidies and farm income to land rent.

Relation of land rent and production intensity expresses by the correlation coefficient was high. 74–77% of land rent changes can be explained by a change of production intensity. However, an increase of production intensity by 1 EUR meant an increase of land rent by 0.06–0.08 EUR. Correlation coefficient of total subsidies influence on land rent was fixed at 0.4–0.5. In such case, moderate to medium high statistical dependence occurs; 16–22% of land rent change can be expressed by a change of subsidies. More than one third of subsidies proceed into land rent.

Classification of states according to a relative change of land rent due to intensity of agricultural production noticed differences in the economy of land rent in old and new states of the EU. Most new states of the EU reports low influence of production intensity on cost/revenue ratio of land rent. This is primarily caused by low rental values in 2005. The old member states report significantly higher land rent per 1 ha so that the influence of production intensity on land rent dynamics is more important. In states with the highest land rent (Germany,

Denmark, Netherlands), the change of production intensity causes great increase of land rent ranging between 53.5 and 229.7 EUR/ha.

Relative change of land rent cost/revenue ratio of land rent of 2005–2007 was related to the ratio of production intensity index and land rent index. In the majority of states the growth index of agricultural production was greater than the growth index of land rent that resulted in a decrease of cost/revenue ratio of land rent. In the states of our study, the production intensity index amounted to 116%, the land rent index amounted to 103% only. An average cost/revenue ratio of land rent of the EU decreased in 2005–2007 and the relative saving of 22.2 EUR/ha has been reached.

High land rent in five states would reach the appropriate 4% cost/revenue ratio of land rent within relative increase of production intensity ranging from 28 to 71%. Impossible or almost impossible relative increment of production does not allow reaching an average EU cost/revenue ratio of land rent. Fast growth rate of land rent related to production intensity can be connected with an inappropriate increase of the cost/revenue ratio in the future.

## SUMMARY

Farm land rent is currently one of the important factors for land evaluation and production costs in a number of European states. It is caused mainly by the fact that rented land has an important share in total utilized agricultural area of a farm. In the EU, an average share of rented land in total utilized agricultural area amounts to 52.5%. The Czech Republic belongs to states with the greatest share of rented land, which amounts to 87.9%.

An average land rent is significantly lower in newly accessed states compared to old members of the European Union. It amounts to less than 100 EUR/ha of rented land. In the EU, there is an average land rent of 150.4 EUR/ha. There is a strong dependence of land rent and the intensity of production. The correlation coefficient of the impact of subsidies on the land rent was stabilized at 0.4 to 0.5. Also land rent in dependence on farm income is characterized by moderate to medium degree of direct statistical dependence.

The classification of the EU states according to relative changes in land rent due to the agricultural production intensity monitors different values in land rent economies in new and old member states. Most of the new states of the EU reported a low impact of production intensity on cost/revenue ratio of land rent. This is primarily due to the low land rents in 2005. Land rents per ha are significantly higher as well as the impact of production intensity on land rent dynamics is more significant in the old member states of the EU.

The relative change of land rent costs due to different cost/revenue ratio of land rent has the opposite tendency compared to influence of agricultural production intensity. Positive increase of production intensity was connected to lower production use of land rent i.e. a decrease of its cost/revenue ratio. This is reflected in a relative saving of land rent. States with greater land rent per ha of agricultural area usually reports greater saving. It is expected that land rents for new EU states will grow. If greater low rents are supposed to be compensated it will be necessary to increase the intensity of production in the corresponding way.

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