# Impacts of the reform of the Common Agricultural Policy (CAP) on land markets in Germany

Dopady reformy společné zemědělské politiky na trhy zemědělské půdy v Německu

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**Abstract:** The political goal to reduce the transformation effects of political measures to the advantage of active farmers is only partially achieved with the Combi-model. The primary recipients are farmers who will give up their farms after introducing the Combi-model. These farmers have mostly farmed leased land. They will return these lands (leased before the reform) to the former leasers and sell their premium rights to other farm owners or lease these in co-operation with the former leasers for a fee to a new lease. Farmers who want to farm over a long term cannot use the stronger negotiating position against the old lessors following the introduction of the Combi-model because they must maintain a good leaser-leasee relationship. But they do profit to a certain extent, at least at first, because the negotiating results of the farms closing with the old leasers will become public. In contrast, the negotiating position of farmers who first lease their land areas following the introduction of the Combi-model is hardly strengthened, particularly in the current lease market in Germany.

Key words: Common Agricultural Policy, land market, rental market, land prices

Abstrakt: Politický záměr oslabit transformační efekty politických opatření tak, aby byly ve prospěch hospodařících zemědělců, je pouze částečně dosažen prostřednictvím Combi-modelu. Hlavními příjemci jsou zemědělci, kteří se po zavedení Combi-modelu vzdají svých pozemků. Tito zemědělci většinou hospodařili na pronajaté půdě. Vrátí tuto půdu (pronajatou před reformou) bývalým pronajímatelům a prodají svá výsadní práva dalším vlastníkům pozemků nebo pozemky pronajmou ve spolupráci s původním pronajímatelem a za úplatu novému nájemci. Zemědělci, kteří chtějí opět dlouhodobě hospodařit, nemohou zaujmout silnější vyjednávací pozici vůči původním pronajímatelům vzhledem k udržení vzájemných dobrých vztahů. Mají však prospěch ze zaručené plochy, alespoň z počátku, protože výsledky dohody o najaté půdě uzavřené s původními pronajímateli se zveřejní. Naopak, vyjednávací pozice zemědělců, kteří si pronajali půdu po zavedení Combi-modelu, je mnohem silnější, zejména na současném trhu s nájmem nemovitostí v Německu.

Klíčová slova: zemědělská politika, trh s půdou, nájemné, ceny půdy

#### INTRODUCTION

The following analysis is follow up on the fundamental publication from March 2004 (Klare, Doll 2004). First of all, we will analyse importance and regional differences in renting of agricultural land and mechanism of creation of prices on agricultural-land markets in East and West Germany. We will conclude by model

computations according to accounting results of tested companies quoted in the agricultural report. This should clarify the impacts of national realisations of agricultural reform of the EU, especially the ones relevant to land market. The computations will be executed for the companies with different production structures.

First of all, we must establish economic situation, realized land rent, and the level of rents before the

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agricultural reform. The amount of benefits, until now included, will be shown separately.

Next, it will be shown how under specific assumption and under the influence of reformed direct payments, economic situation, land prices and agricultural use of land could develop.

Special importance must be given to the possible or real hand-over of agricultural-land premiums to renters, because the impacts of transfer are directly reflected in the price of rent.

We will conclude by a short-term prediction of future direction of land market.

# OWNERSHIP STRUCTURE OF RENT MARKETS

#### Categorization of areas for rent

As can be discerned from the Table 1, the significance of rented land for agricultural production is huge. In the old countries, the share of rented agricultural land has increased by 5 percentage points to

52% between 1993 and 2001. In Lower Saxony, with its more advantageous structure of farm size, the rate of growth is comparably worse then in Bavaria because of the higher average level in Lower Saxony. The reason is a bigger share of farms with side activity. In 2001, there have been roughly 30% (13% of farmland) belonging to competitive-size category (from 100 to 200 or more then 200 ha of agricultural land) in Lower Saxony. This share is more than double or even triples the Bavarian size.

In the new countries, the share of rented land fell by roughly 3% to 88% in the same period. This development came – besides privatisation of formerly nationalised agricultural land-especially from massive sell off of plots of land of private owners to farmers.

### Rent prices of agricultural land in selected countries

Table 2 shows development of average prices in €/ha of newly rented agricultural land (AL) in Lower Saxony, Bavaria, and Saxony-Anhalt for the period

Table 1. The share of rented agricultural land on individual agricultural land classes (%) 1995 and 2001

	Agricultural land class (ha)									
Country	< 50		50 and over		50 < 100	200 and over	total			
_	1995	2001	1995	2001	2001	2001	1995	2001		
Old countries	38.7	41.0	57.5	60.8	58.0	64.7	47.0	52.0		
– Lower Saxony	46.9	47.3	54.3	56.4	52.6	60.7	51.5	54.0		
– Bavaria	29.5	32.4	55.2	59.3	56.8	65.2	35.7	41.9		
New countries	46.0	51.4	91.8	89.6	74.5	90.1	90.1	88.11		
– Brandenburg	43.1	52.6	88.2	90.3	76.5	90.7	86.6	88.7		
– Saxony-Anhalt	55.6	52.7	95.1	90.7	74.4	91.2	94.2	89.7		

Source: Federal Statistical Office (Agriculture and Forestry, Fishing), series 2.1.6

Table 2. Rent prices of agricultural used land 1993 to 2001 (EUR/ha))

Compleies	Average				Newly negotiated <sup>1)</sup>		Change of average prices 1993–2001	
Countries	1993	1997	1999	2001	1997–1999	1999-2001	(%)	
Old countries	217	218	221	225	249	251	3.5	
– Lower Saxony Niedersachen	249	251	255	259	279	280	4.0	
– Bavaria	224	221	227	228	248	244	1.8	
New countries	77	90	97	104	108	122	35.6	
– Brandenburg	48	57	63	68	78	82	41.5	
– Saxony-Anhalt	116	130	140	149	151	178	28.4	

<sup>&</sup>lt;sup>1)</sup>Rent prices of rented agricultural land, newly rented in the period from May 1, 1999 to March 30, 2001 Source: Federal Statistical Office (Agriculture and Forestry, Fishing), series 2.1.6 and 2.1.8.

of 1993–2001. For the estimation of possible future tendencies of development, also the newly negotiated rent prices in the period from 1997–1999 and also 1999–2001 will be shown.

In the old (new) countries, the average rent price went smoothly up by 8 (27) to 225 (104) EUR/ha between 1993 and 2001. For that reason, the rent prices in new countries rose more significantly than in old countries. The average prices in old countries were still more than double. The rising tendency could be observed in all countries despite varying starting levels.

From the newly negotiated rent prices between 1999 to 2001, it can be assumed, that the average rent prices will rise very slowly in old countries and significantly in new countries, assuming there won't be fundamental changes because of severing of traditional bonds.

# The differences in rent prices on the level of regions

From the map (Figure 1), a strong rise of prices is discernible in old and new countries. It was influenced by advantageous natural conditions (see high yield areas with field production as for example Holstein, Bavarian areas, Meklenburg lowlands), connected to high share of beet (e.g. Hildesheimer lowlands, Colon-Aachen lowlands); in the old countries it is also connected with high density of cattle (for example

part of Westphalia bay – Munsterland) and also with poor natural conditions (e.g. countryside surrounding the Ems River – Emsland and Ostalb-Hohenlohe) as well as with wine growing (for example districts of Landau in der Phalz, Bad Durkheim and Neustadt an der Weinstrasse)

The lowest average prices were paid in the old countries on the highlands level (e.g. 52 EUR/ha of agricultural land in the district of Westerwald) and in new countries for sandy soils in eastern Brandenburg (e.g. 27 EUR/ha of agricultural land in Cottbus). The strong influence of the density of cattle is evident from the following comparison: in the district of Lower Saxony, where the cattle breeding is prevalent (Cloppenburg, Vechta), the higher rent prices were paid on less quality soils - about 400 EUR/ha - then in the districts with high-yield localities of field farming (Hildesheim around 350 EUR/ha and Wolfenburg around 340 EUR/ha of AL). It is for the lasting problems with manure that a lowering of the tension on the rent markets in the areas with high cattle counts is out of sight.

# The economic sustainability of rent prices before the CAP reform

The question whether the agreed rent prices were economically sustainable in the past is to be answered

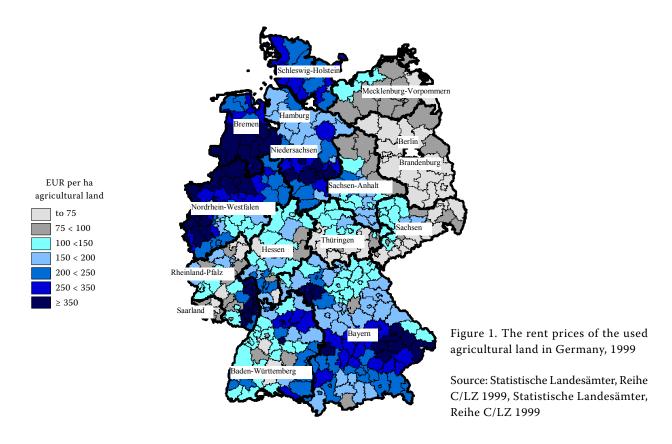


Table 3. Rent payments, AL bonuses and rent prices in agricultural enterprises of selected countries, year 2001/2002 and 2002/2003, enterprises with the main economic activity (EUR/ha of agricultural land)

	Lower Saxony		Bavaria		Brandenburg		Saxony-Anhalt	
Calculation	2001/02	2002/03	2001/02	2002/03	2001/02	2002/03	2001/02	2002/03
Enterprise income	864	632	854	822	317	275	559	423
- wages + insurance	134	122	133	131	101	108	116	108
= gross revenues	730	509	721	690	215	166	442	315
<ul> <li>compensatory costs for family members</li> </ul>	267	266	532	479	144	135	120	125
= net profit	462	243	188	210	70	31	322	189
<ul> <li>interest on outside capital</li> </ul>	33	37	30	30	31	29	25	31
<ul> <li>interest on equity</li> </ul>	30	30	70	74	17	15	14	11
= land rent	398	176	88	105	21	-12	282	146
Rent price	292	308	300	294	78	81	176	180
Agricultural land bonuses <sup>1)</sup>	218	216	238	226	221	219	338	323
Animal bonuses <sup>2)</sup>	11	13	10	11	7	7	2	3
Write offs	217	212	307	279	129	128	133	124

<sup>&</sup>lt;sup>1)</sup>Derivative payments for agricultural land for grain

 $Table\ 4.\ Payment\ of\ land\ rent,\ bonuses\ for\ land\ rent\ and\ rent\ prices\ in\ milk\ enterprises\ of\ chosen\ countries,\ fiscal\ year\ 2001/2002\ and\ 2002/2003,\ enterprises\ with\ main\ economic\ activity\ (EUR/ha\ of\ agricultural\ land)$ 

Calculation	Lower Saxony		Bavaria		Brandenburg		Saxony-Anhalt	
Calculation	2001/02	2002/03	2001/02	2002/03	2001/02	2002/03	2001/02	2002/03
Enterprise income	865	741	985	899	536	565	859	730
- wages + insurance	82	83	56	58	172	183	207	222
= gross income	783	658	929	841	364	382	651	508
<ul> <li>family allowances</li> </ul>	601	619	1 134	1102	218	214	340	316
= net profit	181	38	-205	-260	145	167	311	191
- interest on outside capital	92	99	70	75	71	72	102	69
<ul> <li>interest on equity</li> </ul>	85	82	172	171	40	27	34	28
= land rent	3	-142	-448	-508	34	67	173	93
Rent price	295	292	182	181	84	84	100	111
Land bonuses 1)	86	89	94	93	87	90	133	133
Animal bonuses <sup>2)</sup>	49	71	46	63	31	39	9	15
Write offs	320	318	485	505	240	218	279	277

 $<sup>^{1)}</sup>$ Derivative payments on agricultural land for grains, maize, legume

<sup>&</sup>lt;sup>2)</sup>Derivative payments for cattle, slaughterhouse bonuses

<sup>&</sup>lt;sup>2)</sup>Derived bonuses for breeding cows, bulls, sheep, slaughter bonuses and intensification bonuses

on the basis of accounting results in the agricultural report of tested enterprises for fiscal years 2001/02 and 2002/03 (Table 3 and 4). The land rent realised in the field farming enterprises and milk farms for ha of AL will be compared with the average price of negotiated rent prices. The land rent is computed from the net yield by deduction of interest on foreign capital and interest on assets lowered by 3.5% (land assets). If the rent surpasses the land rent, the

economical sustainability is considered endangered in the long run. In the short or mid term, it is economically acceptable.

In the farms with milk cattle and the big farms with milk cattle, the situation was similar. But the difference between negotiated rent prices and land rent prices was generally bigger, and in the case of small milk farms the land rent was in some cases extremely negative. Even when the estimate of wages

Table 5. Payments of land, agricultural bonuses, EGE classes, year 2001/2002 and 2002/2003, enterprises with main economic activity (€/ha agricultural land)

	Division of enterprises according to $classes^{1)}$							
Calculation	16	< 40	> 100					
	2001/02	2002/03	2001/02	2002/03				
Farms with crop production								
Farms income	597	497	753	607				
- wages + insurance	86	73	160	154				
= gross income	511	423	593	452				
<ul> <li>family allowance</li> </ul>	736	693	179	177				
= net profit	-224	-269	413	274				
<ul> <li>interest on outside capital</li> </ul>	18	30	35	41				
<ul> <li>interest on equity</li> </ul>	56	56	26	21				
= land rent	-299	-355	352	211				
Rent price	201	197	222	225				
Agricultural bonuses <sup>2</sup>	240	237	248	239				
Animal bonuses <sup>3</sup>	15	11	6	9				
Milk farm								
Farms income	946	860	911	835				
- wages + insurance	52	53	133	142				
= gross income	893	806	778	692				
<ul> <li>family allowance</li> </ul>	1 298	1 267	386	377				
= net profit	-404	-461	391	314				
<ul> <li>interest on outside capital</li> </ul>	54	57	101	102				
<ul> <li>interest on equity</li> </ul>	161	157	74	68				
= land rent	-620	-675	216	143				
Rent price	170	176	223	222				
Agricultural bonuses <sup>2)</sup>	79	77	115	117				
Animal bonuses <sup>3)</sup>	28	39	50	69				

 $<sup>^{1)}</sup>$ EGE corresponds to overall bonus in amount of 1200 EUR

<sup>&</sup>lt;sup>2)</sup>AL with maize, grain, oil seeds, pulses

<sup>3)</sup>Cattle bonuses and intensification bonuses

for family workforce makes possible, at least in short term, certain latitude, such extreme values cannot be compensated in the long run (Table 5).

### The probable direction of rent prices after the SAL reform

The price creation on the German rent markets is not de facto influenced by political forces. Also the planned realisation of the SAL reform will not be accompanied by immediate intervention in rent prices created by supply and demand curve on the local rent markets. The abolition of interrelation between bonus and the requirement of agricultural production worsened the transparency of pricing. For that reason, the goal of this policy – the stronger position of active farmers on the marketplace will not be probably accomplished.

### The possibility of the transfer of rights to bonuses in the combined model

The influence of CAP reform on agricultural rent and through that also on purchasing prices depends among others on the transferability of bonus-rights. The transfer in the cases of inheritance or in the cases of disproportional hardship are not interesting, market transfers are much more attractive.

The entitlement will be actually paid only in case of hectares eligible for such support. The cumulating of entitlements for payments for the same hectare is not possible. If the farmer is eligible for payment for which the agricultural land eligible for payments cannot be proved, the payments cannot be realised. Nevertheless, the farmer has a three-year grace period for the appeal; otherwise the unused rights will escheat to national reserve for the payment of bonus rights.

### Impacts of transfer after the adaptation phase

During the transfer of agricultural land between first leasers after the CAP and farmers who consent to increase, the outcome of negotiation will be very strongly influenced by competitive environment on today partial rent markets. The sustaining of the stable leasers and sub-leaser relationship will influence the negotiations with the old leasers. On some rent markets, the first renter stands quite a chance (if he has a knowledge of market and necessary skills) that the premium payments will be partially or even entirely transferred to him, relevant to agreement on amount of rent. In the contrary case, the transfer will be very small or non-existent (Table 6).

In any case, they will try to include relevant addendum into the contract, which will withstand court

Table 6. Individual development of bonus rights values

	Amount o	f bonuses	- Basic value of bonus difference <sup>2)</sup>
Calendar year	arable land EUR/ha	meadows EUR/ha	EUR/ha
2005 – without cattle bonuses	349	95	-
2005 – with cattle bonuses <sup>1)</sup>	558	304	241.9
2006 – with cattle bonuses <sup>1)</sup>	640	386	230.4
2007 – with cattle bonuses <sup>1)</sup>	640	386	219.4
2008 – with cattle bonuses <sup>1)</sup>	640	386	209.0
2009 – with cattle bonuses <sup>1)</sup>	640	386	199.0
2010 – subsidy factor 0.75	574.5	384	142.2
2011 – subsidy factor 0.50	509.0	382	90.3
2012 – subsidy factor 0.25	443.5	380	43.0
2013 – subsidy factor 10.0	378.0	378.0	0.0

 $<sup>^{1)}</sup> Individual\ bonuses\ for\ each\ enterprise\ (milk,\ bulls\ bonuses\ increase\ amount\ for\ arable\ land\ and\ meadows\ by\ the\ same\ amount\ properties and\ properties are also also also also be al$ 

<sup>&</sup>lt;sup>2)</sup>Discount  $\frac{1}{1.05^N}$  (N = number of calendar years)

scrutiny and which assure him, that his-on his agricultural land based and to him given bonus rights —will be return to him after the termination of the rent for the next one. In opposite case is the renter, which rented his agricultural land for the first time after introduction of the combined model during the rent negotiations after the expiration of the rent contract, in the weak position of an old renter.

# The impact of the transfer in case of change of land use category

After the implementation of the combined model, all AL, with the exception of permanent cultures, will have the right for granting of bonuses and consequently there will be an overhang of bonuses if the category of AL is not changed to non-agricultural use category. In 1997–2000, day-to-day use of agricultural land including of area of buildings, free areas as well as the areas of factories, recreational and transportation areas was in Germany on average 129 ha daily. In 2001 it went down to 105 ha. Approximately 54% of the areas were agricultural land in Germany in 2001, it could be said that also 54% of daily changes of construction and infrastructure areas were agricultural land. Consequently, in 2001 20 700 hectares were used for non-agricultural purposes.

After the implementation of the SAL reform bonus rights cause demand for agricultural land and its price will rise.

### Critical appraisal

The goal that the policy is striving for-to soften the impact of transfer of political measures to the advantage of active farmers-will be accomplished with the combined model only at the beginning. The prime beneficiaries are the farmers, who gave up their enterprise after the introduction of the combined model, who farmed agricultural land in considerable extent, who rented this land before the reform and will return the land to original renter and sell their rights to bonuses to other owners or rent the land to new renter. The similar goes for farmers, who will transform their enterprises to side activity and they will return the farmed rented agricultural land to original renter.

The farmers, who want to farm their farms in the long term, cannot after introduction of the combined model use their stronger negotiation position in dealing with old renter in the same extent as the farmers who are giving up farming because their priority must

be a good renter agreement. On the other hand, they profit, albeit indirectly, from their stronger negotiating position, because the outcome of negotiations of terminated enterprises will become known. Their negotiating position with regard to farmers, who, after implementation of combined model, rent their land for the first time, will be hardly stronger at present, especially on the prevalent rent markets in Germany. Compared to pre-reform situation, there cannot be expected any pronounced and long-lasting softening of impact of the transfer to the advantage of farmers with long term activity from the implementation of separate bonus payments in the combined model. For the renters as a group, the SAL reform will probably lead to a much bigger redistribution to the advantage of new renters. Ensuing faster or slower ceasing of activity of enterprises could speed up the change in agrarian structure.

### ESTIMATION OF FUTURE DEVELOPMENT ON THE RENT MARKET

As a result of the pro market policy, the lowering of prices under the same conditions can be expected as on share markets with rents as on share markets with milk as a result of milk market reform. Starting in 2007, by the relevant decision, the value of raw milk will be reduced to about 21.9 ct/kg of raw milk in the final phase. It means the lowering by about 6.2 ct/kg in comparison with 2003 (compare Schmidt 2003" 6). By that, the compensatory payment in acceptable absolute amount will compensate only about 50% of the price fall.

With the prevalence of winners (losers) by higher (lower) transfer of bonuses will increase (lowering) rent price. The winners on the crop market are those enterprises that were growing grain, legume and oil on as small as possible part of their active agricultural land. The losers are the farms that grew solely these commodities. In the milk and meat production, the winners are the farms that run this production in an extensive way (average milk yield, milk cow raising) on the field and pastures. The prime losers are the enterprises with intensive raising of milk cattle and meat bulls with the small share of meadows and pastures. There are some indicators pointing to the direction that the distribution profits in the areas with the field production with the high share of sugar beets will be significantly lower or even negative.

Besides the agrarian policy of the EU, the developments on rent markets is also determined by the developments on the world markets prices of the agrarian commodities. From the agrarian point of

view, the price directions in crop production can be considered more positive than animal husbandry.

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