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**Common Agricultural Policy direct payments and distributional conflicts over rented
land within corporate farms in the New Member States**

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Common Agricultural Policy direct payments and distributional conflicts over rented land within corporate farms in the New Member States

Abstract

This paper aims to investigate whether distributional issues within corporate farms in the New Member States will be exacerbated by the introduction of the Common Agricultural Policy (CAP) direct payments. The paper focuses on the specific impact of the payments on the land rented to the corporate farms by private landowners. If the latter are not satisfied with the level of rent they receive, they have the option to end their rental contract and withdraw their land from the farm. Before accession to the European Union the landowners did not have strong incentives to withdraw, as the other opportunities available were not associated with higher returns on land ownership. However, this situation might change as the landowners can now cash the CAP direct payments themselves, providing they keep their land in good agricultural and environmental condition.

Propositions generated by a simple game, representing the negotiations between a corporate farm manager and an individual landowner about the level of the rent, suggest that the CAP direct payments might induce more rent renegotiations but that overall withdrawals will be infrequent. The results from a survey of landowners in corporate farms in Slovakia and in the Czech Republic seemed to corroborate these *a priori* expectations. The investigation of the determinants of landowners' intended behaviour showed that what seems to be important in the decision-making is the relationship between landowners and managers. Those landowners who have frequent contacts and close relations with the farm are less likely to withdraw.

Keywords: CAP direct payments, corporate farms, distributional conflicts, game theory, landowners

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1. Introduction and context

Since 2004, the farmers in the New Member States (NMS) of the European Union (EU) have started receiving direct payments under the Single Area Payment Scheme (SAPS) (except in Slovenia and Malta, who opted for the standard EU Single Farm Payment scheme). An important issue arising from the application of the Common Agricultural Policy (CAP) direct payments to the NMS is the potential effect on corporate farms. As these payments are allocated to farm holdings, they might exacerbate the distributional conflicts among the various stakeholders within the corporate farms, including landowners, capital holders, workers and managers. The distributional issues in the corporate farms relate to the way profit (including direct payments) is distributed between rentals, dividends, wages and investment. As noted by Brem and Kim (2000), a corporate farm can be considered as an economic organisation consisting of different interest groups (the various stakeholders) who negotiate the objectives of this organisation. The separation of ownership and control might induce managers to set objectives that are not the other stakeholders' objectives, such as e.g. increasing the farm's size (Jensen and Meckling, 1976; Williamson, 1983).

As the CAP payments are paid to the farm holdings, their use is at the discretion of the corporate farms' managers. The latter have several options, such as using the payments for current business operations, for investment, for repayment of debts or for increasing payments to the various stakeholders. Since it is assumed that the managers derive an increasing utility from farm growth, they might prefer to use the payments for the farming business. Therefore, the CAP direct payments might exacerbate conflicts between the managers and the other stakeholders regarding the use of profit.

This study focuses on conflicts between managers and landowners. If landowners are not satisfied with the level of rent they receive from the farm, they have the option to end their rental contract and withdraw their land, and thus endanger the corporate farm's existence. This is an important issue for some of the NMS where corporate farms (producer co-operatives, joint-stock companies and limited liability companies) cultivate the majority of agricultural land, e.g. the Czech Republic and Slovakia.

The corporate farms in the NMS do not have counterparts in the EU-15, where family farming prevails. Producer co-operatives are mainly successors of the previous collective farms that existed under the centrally planned system, however, some of them are transformed state farms. Limited liability companies have their origin in the privatisation of the state farms. At

the beginning of the process, state farms' assets were leased to small groups of people, normally involving the former farm managers (Ratinger and Rabinowicz, 1997). Gradually, the non-land assets were sold to the lessees at favourable conditions with rescheduled payments. The joint-stock companies have a large number of shareholders (a few hundreds). A portion of them has roots either as state farms or as inter co-operative enterprises. However, some of the companies were created during the post-reform period.

Often, the landowners who had acquired land as a result of the land restitution process in 1990s left it within the corporate farms. Several factors influenced this decision: people who acquired land did not have experience in farming; during the transition the general economic risk was high and the profitability of agriculture was low. In addition, it was difficult to have the restituted ownership in demarcated boundaries and with physical access to the plots. Initially, landowners were paid a notional rent based on administrative land valuation. All these factors made the owners reluctant to bear the transaction costs of withdrawing their land as the monetary benefits from renting the land outside the corporate farms were uncertain. Therefore, before accession to the EU the landowners did not have strong incentives to withdraw, as the other opportunities available were not associated with higher returns on land ownership. In particular, as mentioned above, individual farming was viewed as non-profitable. However, this situation might change as the landowners can now cash the CAP direct payments themselves, providing they keep their land in good agricultural and environmental condition.

The potential increase in withdrawals is of vital importance to the existence of the corporate farms, as they rent most of their utilised agricultural area from individual landowners (e.g. 97 percent in 2003 in the Czech Republic; CSO, 2003). Such a situation does not exist in the EU-15. Although the CAP reform and the move to decoupled payments may influence land renting activity, this will not raise questions regarding the survival (or otherwise) of a particular farm structure as it has done in the case of corporate farms in the NMS. Therefore, the focus of this paper does not mirror a similar process in the EU-15.

The study aims to provide an initial assessment of the potential impact of the introduction of CAP direct payments on corporate farms in the NMS, focusing particularly on rented land. *A priori* expectations are firstly generated with the help of a theoretical framework based on a simple two-player one-shot game. The expectations are then compared with the results from a survey of landowners in Slovakia and the Czech Republic.

The paper is structured as follows. The second section explains the game and formulates the research propositions. The third section presents the results from the survey and the fourth section concludes.

2. Theoretical framework

2.1. The general game

In corporate farms, landowners have three options available concerning the returns on their land. The first option is the *status quo*, that is to say, to keep the land in the corporate farm for the same rent. The second option is to ask for a rent increase and the third one is to withdraw the land from the corporate farms. Landowners will choose option two if they are not satisfied with the current level of the rent and option three if the rent renegotiation is unsuccessful. As the negotiations between the corporate farm managers and landowners about the level of rent are the core of the issue, a game theory has been employed as a framework to aid the generation of prior expectations. As the aim is to provide an easy understanding of how propositions have been generated, the game used here is kept as simple as possible.

The game includes two representative players, the manager and a landowner, and is a non-cooperative static one. The negotiation process is one-shot; the manager (F) and the landowner (L) meet together once to decide the level of the rent and make simultaneous offers. It is assumed that only two offers are possible, a low rent, that is the rent usually paid to the landowners, and a high rent, that includes an increase following the renegotiation. Both players have thus two possible actions: offering, or respectively asking for, low rent and high rent. Therefore, there are four possible payoff (II) vectors, as shown in Table 1. If both players choose the same action, they reach an agreement and the landowner rents the land out to the farm for the specific rent level agreed upon. If the rent is low rent, the outcome is thus “no change”, while if the rent is high, the outcome is “rent increase”. If the landowner asks for a low rent while the farm’s manager proposes a high rent, it is straightforward to assume that there will be an agreement on renting the land at a high rent and the outcome is “rent increase”. Finally, if the farm’s manager offers a low rent but the landowner asks for a high rent, there is no agreement and the rental contract is ended. The landowner withdraws their land from the farm; the outcome is “land withdrawal”.

The landowner’s choice of action depends on whether they have a better opportunity elsewhere. This is modelled here by introducing two types of landowners. Type 1 ($L1$, with probability p) is a landowner who has a better opportunity for the land outside the corporate

farm and who represents a credible threat of withdrawal. By contrast, the type 2 ($L2$, probability $1-p$) is a landowner who has no better opportunity for their land elsewhere and there is no credible threat of withdrawal. There is asymmetric information about the landowners' type. Although the managers have information about the characteristics of the plot, they are not fully informed about their landowners' values and situation, as most of them are absentee landowners living in large cities.

Table 1: The payoff matrix of the game

		LANDOWNER	
		Low rent	High rent
FARM	Low rent	No change $\Pi_{low\ rent}^F, \Pi_{low\ rent}^L$	Land withdrawal $\Pi_{withdrawal}^F, \Pi_{withdrawal}^L$
	High rent	Rent increase $\Pi_{high\ rent}^F, \Pi_{high\ rent}^L$	Rent increase $\Pi_{high\ rent}^F, \Pi_{high\ rent}^L$

Note: Π_j^i denotes the payoff of the i -th player ($i=F$ for the farm manager; $i=L$ for the landowner) in the j -th situation (there are three possibilities for j : the land is rented for low rent, the land is rented for high rent, or the land is withdrawn).

The payoffs for each player and strategy are not explicitly stated here, but assumptions about their ranking can be made. The farm manager will prefer to give a low rent than a high rent, but land withdrawal is costly for the farm as it reduces the area farmed and consequently will decrease revenue and farm profit. Therefore, the farm's payoffs are ranked as follows:

$$\Pi_{low\ rent}^F > \Pi_{high\ rent}^F > \Pi_{withdrawal}^F \cdot \quad (1)$$

As far as the landowner is concerned, whether type 1 or type 2, they will prefer to receive a high rather than a low rent. But if the payoffs of a withdrawal for type 1 (credible threat) are greater than the payoffs of continuing renting the land to the corporate farm for a low rent (Equation 2), the situation of type 2 (no credible threat) is the opposite (Equation 3):

$$\Pi_{high\ rent}^L > \Pi_{withdrawal}^{L1} > \Pi_{low\ rent}^L \quad (2)$$

$$\Pi_{high\ rent}^L > \Pi_{low\ rent}^L > \Pi_{withdrawal}^{L2} \quad (3)$$

Players choose to play the strategy that maximises their payoff. The type 1 landowner's strongly dominant strategy is a high rent and this will be played by them regardless of what might be played by the opponent (Rasmusen, 1994). Similarly, the type 2 landowner's strongly dominant strategy is to ask for a low rent in order to avoid termination of the rental contract. There is no dominant strategy for the manager, but a set of two best responses: low rent if the landowner plays low rent, and high rent if the landowner asks for it. If there were no information asymmetry and the landowner's type were common knowledge, then the manager would know which action would be taken by the other party. Therefore, in the case of a type 1 (credible threat) landowner, land would be rented for a high rent, while in the case of a type 2 (no credible threat) landowner, land would be rented for a low rent. This means that, in reality, if the manager has information about the landowner's type, the land will always stay within the corporate farm. If the manager cannot identify the opponent's type, it is assumed that they have some beliefs about the prior probability of the landowner's types, p and $(1-p)$. Therefore, they will play the strategy that brings the greater of the possible expected payoffs. Hence, all three outcomes are possible but their frequency depends on the value of the probability p .

So far, however, the overall game has been based on the assumption that the farm is able to offer the two levels of rent. If the farm is financially constrained and cannot afford a rent increase, the game reduces to the upper half of Table 1. In such a situation, in the case of a type 2 landowner (no credible threat) the solution will still be to rent the land for a low rent, but in the case of a type 1 (credible threat) the solution will be a withdrawal.

In summary, the frequency of each of the three outcomes depends on the level of the probability p and the farm's financial constraints. The smaller the p , the more frequent is the outcome "no change". The more financially constrained the farms are, the more frequent are the outcomes "no change" and "land withdrawal".

2.2. Landowners' behaviour before and after the CAP application

Landowners' behaviour before the accession to the EU and the CAP implementation can be summarised in the following proposition.

Proposition 1: Before the implementation of the CAP the outcome “no change” was more frequent than the outcomes “ask for a rent increase” and “withdraw land”.

The outcome “no change” prevailed as many farms were financially constrained due to low profitability or loss-making and most landowners had no other alternative to get higher returns on their land elsewhere. After the introduction of CAP direct payments, the following two propositions concerning landowners' behaviour can be formulated:

Proposition 2: After the implementation of the CAP the frequency of the outcome “no change” will decrease.

Proposition 3: After the implementation of the CAP the outcome “land withdrawal” will not be more frequent than the other two outcomes “no change” and “ask for a rent increase”.

The frequency of the outcome “no change” might decrease following the CAP implementation as p will increase, that is to say more landowners might be able to make a credible threat of withdrawal. The Single Area Payment delivered without the requirement to produce might give incentives to landowners to manage their land themselves if the profit from it (taking into consideration the cross-compliance costs) were to exceed the rent they receive in the corporate farms. Hence, it can be expected that more landowners will want to change their situation and renegotiate their rent. However, as stated in Proposition 3, despite an increase in rent renegotiations, withdrawals are not expected to be massive for two reasons. First, the introduction of direct payments is expected to relax financial constraints and thus fewer farms will be financially constrained and more farms will be able to offer a high rent. Second, the probability p will not increase dramatically, that is to say the overall number of landowners with credible threat will not rise considerably in the next few years. This will be due in part to the typical small scale land ownership in the NMS and the relatively low direct payments per hectare due to the phasing-in agreed in their Treaties of Accession. If the landowners contemplate withdrawing land for individual management, the direct payments might not be enough to offset the costs of cross-compliance (under the assumption that the cross-compliance will be properly enforced and monitored). The other reason is that landowners, most of whom are absentee, might still prefer to have their land managed by somebody else and often the corporate farm is the obvious choice.

3. Results from a survey in Slovakia and the Czech Republic

3.1. Stated change of behaviour following the introduction of the CAP payments

The game theory framework helped to formulate prior expectations that land withdrawals will increase as a result of SAPS implementation. In order to see whether empirical support for these propositions could be found, a survey of owners of land rented out to corporate farms was carried out in Slovakia and in the Czech Republic in spring 2005. The questionnaire included four short sections. The first section incorporated questions regarding landowners' characteristics. In the second and third sections landowners were asked whether in the past they had asked for a rent increase or had withdrawn some land. Finally, in the fourth section the landowners were provided with the SAPS modalities and asked whether this scheme would induce them to renegotiate their rent or withdraw their land from the corporate farms in the next five years. In both countries landowners were chosen from the cadastre in regions that were representative in terms of geographical and economic conditions.¹ Face-to-face interviews were undertaken in Slovakia, while a postal survey was carried out in the Czech Republic, bringing a return rate of 15 percent. The usable records were 355, including 183 in Slovakia and 172 in the Czech Republic.

Table 2 provides information about past rent renegotiations and land withdrawals. Less than 4 percent of the landowners asked for a rent increase or withdrew some of their land in the past years. This provides support to Proposition 1. Most of the respondents have never considered asking for a rent increase or to withdraw their land because there were no better opportunities elsewhere or because they preferred to have their land managed by somebody else. Finally, Table 2 reports landowners' intentions within the following five years, having in mind the CAP context. Landowners were asked whether the introduction of the CAP direct payments would change their behaviour towards the corporate farm in which they were renting land.

¹ Initially, some corporate farms were approached for the survey. It was expected that they would answer some of the questions and provide the addresses of their landowners. However, the corporate farms found the questions sensitive and refused to participate fearing that it might provide too much information and incentives to their landowners to start rent renegotiations. Therefore, all landowners were chosen from the cadastres. Those landowners that were surveyed were asked some basic characteristics (e.g. utilised area) of the corporate farm they rented their land to, but in general they did not know. For this reason, it was not possible to add any variable describing the corporate farms in the regression in the next section which investigates the factors affecting the landowners' intentions.

Although the majority claimed that their behaviour would not be influenced (75 percent), this share was smaller than the share of landowners who had taken no actions in respect to the land rent before the introduction of the CAP, which provides some support to Proposition 2. Only a few of the respondents would consider withdrawing their land (12 percent), supporting Proposition 3.

Table 2: Statistics regarding the landowners' past and future behaviour with respect to their land

	Both countries	Slovakia	Czech Republic
Number of usable answers	355	183	172
Past behaviour			
Share of landowners who asked for a rent increase in the past 2 years (%)	2.5	3.9	1.2
Share of landowners who withdrew land in the past 5 years (%)	3.7	4.9	2.3
Share of landowners who never considered renegotiating or withdrawing in the past 5 years (%)	58.6	40.4	77.9
Future behaviour			
Share of landowners who, due to the CAP direct payments, consider in the next 5 years:			
A) changing their behaviour with respect to their land (%), including:	25.1	20.2	30.2
asking for a rent increase (%)	13.0	6.6	19.8
withdrawing land (%)	12.1	13.6	10.4
B) not changing their behaviour with respect to their land (%)	74.9	79.8	69.8

3.2. Factors affecting landowners' intentions

One important issue is to understand the underlying reasons behind the landowners' choice of not changing their behaviour or asking for a rent increase, rather than withdrawing from the corporate farm. To investigate the determinants of landowners' intentions, a multinomial logit is used. The dependent variable is categorical and takes the value of 2 if the landowners intend to withdraw their land, 1 if they intend to ask for a rent increase, and 0 if they would prefer no change (the latter is taken as a reference). The factors potentially affecting the behaviour were identified based on the body of literature about farm individualisation during transition. Several studies have explored the factors affecting the choice of individuals to exit the former state and collective farms after the fall of central planning. The main factors relate to landowners' social characteristics and capital endowment (Rizov et al., 2001), and to the risks of farming (Mathijs and Swinnen, 1998). Social capital, i.e. networks and trust (Putnam, 1993), has also been found to play an important role in the success of agriculture during transition (Slangen et al., 2004).

In this study, the final specification of the logit model includes two social characteristics, the landowners' age and a dummy taking the value 1 if they have secondary or tertiary education. It is expected that older landowners have weaker incentives to change their current situation, and that highly educated landowners would be more informed about the CAP and thus more prone to ask for a rent increase. Social capital is treated in regard to the relationship that landowners have with the corporate farms' management. It is proxied, first, by the number of years that both parties have been in relation with each other and, second, by a dummy taking the value 1 if the landowner has more than one contact per year with the farm. The influence of these variables is ambiguous. Landowners who have a distant link with the farm might have less opportunity or desire to change their current situation. However, landowners with a close relationship might also be less likely to change their contract as they might know precisely the reasons behind the level of rent they receive. Besides these variables, two land characteristics are included: the total area rented out in hectares and the annual rent per hectare in euros. Finally, a dummy equal to 1 for the Czech landowners and 0 for the Slovak landowners is included.

The model goodness-of-fit statistics are satisfying, including a correct share of predictions of 73.4 percent. Regarding the influence of the explanatory variables, shown in Table 3, the social characteristics (age and education) have no influence on the intention to change, but the contacts with the farm plays a role. Landowners who have frequent contact with the farm management are more likely to keep their *status quo*. Moreover, the longer the landowners have been in contact with the management, the less likely it is that they would opt for withdrawing their land. This suggests that managers who keep a close and established relationship with their landowners are less likely to experience massive withdrawals of land. The landowners' future behaviour is not influenced by the area that they rent out. However, the lower the level of rent that they currently receive, the more likely it is that they will ask for a rent increase or withdraw land. Finally, the country dummy reveals that especially in the Czech Republic landowners are more likely to renegotiate their rent than to withdraw. This is reflected in the percentages of respondents presented in Table 2, namely that most of the landowners willing to change their behaviour would prefer to ask for a rent increase in the Czech Republic while they would favour withdrawals in Slovakia.

The last point which underlines the differences between the two countries deserves a more extensive discussion. In both countries there are heavy distortions to the land market brought about by several factors, including unfinished land reforms. In the Czech Republic, there are more impediments to the withdrawal of land from the corporate farms than in Slovakia. In the Czech Republic, not only are the physical boundaries of the individual plots not demarcated on the fields, but also the land cadastral maps are not completed. In Slovakia, there are no physical identifications of the plots on the fields and there is a need for additional surveys, but at least the maps have been completed. Besides this, the Slovakian landowners might think that there is not a margin to renegotiate rental contracts. In the Czech Republic, there is no reference to any official land price set for tax purposes when fixing rent. In Slovakia, the Act on Land Lease (No 504/2003 Coll., par. 10) sets a minimum land rent price at 1 percent of the administrative price, and, although there are no legal requirements regarding a maximum price, in practice it is believed that rentals are brought into alignment with the low price charged by the Slovak Land Fund for state-owned land (1.5 percent of the administrative price of land). The lack of flexibility might also be felt with regard to the duration of the rental contract that is set by the law to 5 or 20

years in Slovakia. In contrast, in the Czech Republic the terms are left to mutual agreement and the duration of the contract can be shorter (Latruffe and Le Mouël, 2006). All this might have influenced the intentions of the landowners in the two countries.

Table 3: Results of the multinomial logit on landowners' intentions in the next 5 years

Variable	Intend to ask for rent increase (1)		Intend to withdraw land (2)	
	Parameter	Significance	Parameter	Significance
Intercept	-3.250	**	-0.644	
Age	-0.005		-0.005	
High education, dummy	-0.413		-0.674	
Length of relationship	-0.034		-0.047	**
Frequent contact, dummy	-1.444	***	-0.665	*
Total area rented out to the farm	0.040		0.048	
Annual rent received	-0.017	*	-0.021	*
Czech Republic, dummy	1.162	**	-0.024	
Pearson Chi-square		42.4 ***		
Nagelkerke R-square		0.18		
Percentage of correct predictions		73.4%		
Number of valid observations		282		

Notes: The reference category (0) includes those landowners who do not intend to renegotiate their rent nor withdraw their land. *, **, *** denotes significance at 10, 5, 1 percent level.

4. Conclusions

The widespread existence of corporate farms in the NMS has raised doubts about their viability under the CAP direct payments introduced in 2004. The preference of newly emergent landowners in the 1990s to leave their land in the corporate farms was linked to the low level of farm profitability and the high risk in the economic environment. Accession to the EU and the introduction of CAP support, and in particular the direct payments per hectare, have improved the market conditions in these countries and have increased farm incomes. The main question is whether under these circumstances the landowners would still prefer to leave their land in the corporate farms or whether a quick disintegration of these organisations will be witnessed. Propositions generated by a simple game, representing the negotiations between a corporate farm manager and an individual landowner about the level of the rent, suggested that CAP direct payments might induce more rent renegotiations but that overall withdrawals will be infrequent. The results from the survey of landowners in corporate farms in Slovakia and in the Czech Republic seem to corroborate these *a priori* expectations. The investigation of the determinants of landowners' behaviour indicated that while the current low rent level could increase the probability of changing behaviour, what appeared to be important in the decision-making was the relationship between the landowners and managers. The landowners who have frequent contacts and close relations with the farm are less likely to withdraw, indicating that their payoffs depend not only on the monetary returns from cashing the direct payments but also on some non-pecuniary characteristics.

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