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Laure Latruffe, Sophia Davidova

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Corporate farms in the New Member States: is their future undermined by the CAP Single Area Payment ¹

Laure Latruffe

INRA Rennes (Laure.Latruffe@rennes.inra.fr)

Sophia Davidova

University of Kent (s.davidova@imperial.ac.uk)



Impact of Decoupling and Modulation in the Enlarged EU FP6 project SSPE-CT-2003-502171

Deliverable 22

Tomas Doucha, Tomas Ratinger, Tomas Medonos, Ladislav Jelinek, Jan Boudny, Eliska Vrbova, Marie Guitton, from VUZE in the Czech Republic, and Gejza Blaas and Marian Bozik from VUEPP in Slovakia contributed to the surveys design, implementation and helped with useful comments and clarifications.

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1. Introduction

The original objective of this deliverable was to study the implications of the Common Agricultural Policy (CAP) decoupled payments for individual tenant farms in the EU-15 and corporate farms in the New Member States (NMS) based on the results of the farm survey undertaken within Workpackage 3. However, there were not important variations in the responses between mainly tenanted and mainly owned individual farms in the surveyed EU-15 countries (France, Sweden and the UK). For this reason, all aspects of the individual farms' behaviour and corporate farms' intentions to adjust the scale of their operation and their output mix to the decoupled payments were analysed and presented in Deliverable 14. The present deliverable focuses on the implications of the introduction of the Single Area Payments (SAP) for the corporate farms in the NMS from the point of view of the behaviour of the landowners who rent their land to the corporate farms. The question about the potential response of the landowners to the SAP is a key to understand some of the driving forces of the structural change in NMS farming. On the one hand, massive withdrawals of land from the corporate farms might bring about an accelerated individualisation of farming in those NMS where corporate farms are still important. On the other hand, such a process could undermine in the short- to mid-term the international competitiveness of NMS agriculture. A recent study commissioned by the UK Ministry of Environment, Food and Rural Affairs (DEFRA) indicates that most probably the corporate farms will continue to represent the core of the competitive farming units in those NMS where such farms are wide spread, although the concrete relative competitiveness between corporate and individual farms will vary depending on the product (DEFRA, 2005).

The main conflict that could undermine the long-term existence of corporate farms under the CAP SAP concerns the distributional issues that may arise in relation to the way profit (including the CAP payments) will be 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 bargain on the objectives of this organisation: landowners, capital holders, workers and managers. The separation of ownership and control might induce managers to fulfil objectives that are not the other stakeholders' objectives, such as increasing the farm's size (Jensen and Meckling, 1976; Williamson, 1983).

As the CAP payments are allocated to the farm holdings, their use is at the discretion of the corporate farm managers. The latter have several options, such as using the payments for the current business operations, for investment, for repayment of debts or for increasing the payments to the various stakeholders. Since it is assumed that the managers derive an increasing utility from the farm growth, they might prefer to use the payments for the farming business. Therefore, the CAP payments might exacerbate the conflicts between the managers and the other stakeholders within corporate farms regarding the use of profit. In particular, the conflicts between managers and landowners are a major 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 rent most of their utilised agricultural area from individual landowners (e.g. 97 percent in the Czech Republic in 2003; CSO, 2003). If the 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 from the farm. The ease, or otherwise, to do this depends on the tenancy legislation in each country, the time period of the contract, when and how the lease may be terminated, and the requirements for notice of termination. However, in most of the NMS land rental agreements are rather short term.

The corporate farms in the NMS do not have counterparts in the EU-15, where family farming prevails, as most of them have their roots in the pre-1990 collectivised agriculture in Central and Eastern Europe. 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). Part 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, the transaction costs to have the restituted ownership in demarcated boundaries and with physical access to the plots were very high. Initially, landowners were paid a notional rent based on administrative land valuation, but they accepted it as the demand for agricultural land outside the corporate farms was low. 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 SAP themselves, providing they keep their land in good agricultural and environmental condition (GAEC).

In order to provide insights into the potential response of the landowners to the SAP, a priori expectations were first generated with the help of a game theory framework. To see whether empirical support for these propositions could be found, data on the past occurrences of rent renegotiations and land withdrawals were collected from individual landowners in Slovakia and the Czech Republic, the two NMS in which the role of corporate farms for the agricultural sector is central. Landowners were also asked about their future intentions under the SAP scheme. The answers of Slovakian landowners were cross-checked with data collected through the main IDEMA farm survey. As presented in Deliverable 14, Chapter 8, 152 corporate farms were interviewed in Slovakia, including 101 cooperatives and 51 companies.

The next section of this report presents the theoretical game and the propositions generated regarding landowners' expected behaviour. The third section describes the survey of landowners and details the findings from the analysis of the survey data, while the fourth section investigates the data collected through the corporate farm survey. The last section concludes and draws policy implications.

2. Theoretical representation of the conflicts between the corporate farms and their landowners

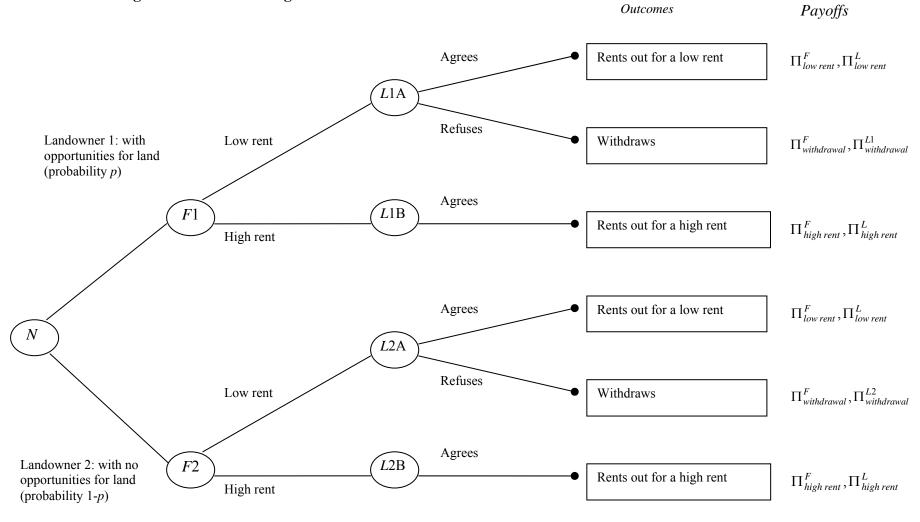
In the corporate farms landowners have three options concerning the returns on their land. The first option is the status quo, namely to keep the land in the farm for the same rent. The second option is to ask for a rent increase and the third one is to withdraw the land from the corporate farms. Landowners will choose option two if they are not satisfied with the current level of the rent and option three if the rent renegotiations are unsuccessful. As the negotiations between corporate farm managers and landowners about the level of rent are at the core of the issue, game theory has been employed as a framework to aid in generating the prior expectations. In order to ease the understanding of how the propositions have been generated, a simple game used.

2.1. Description of the game

The game includes two representative players, a farm 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 about the level of the rent and there is no room for counter-offers. The game is represented in its extensive form by the tree depicted in Figure 1. In this representation, the game is sequential; players move one after another. The farm's manager makes the first move by announcing the level of the rent. It is assumed that only two offers are possible, a low rent and a high rent. The low rent is the rent that is usually paid to the landowners, while the high rent includes an increase following the renegotiation. Once the manager has played, the landowner decides whether to accept or to refuse the rent offered. If they accept, the game ends and the land is rented at the agreed rent level. If they refuse, the game also ends but the rental contract is terminated and the land is withdrawn. However, this can only happen when a low rent is offered. When a high rent is offered, it is assumed that the landowner never refuses it. In other words, the high rent always matches the landowner's expectation; it is not less than what the landowner could get outside the corporate farm.

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) is a landowner who has a better opportunity for the land outside the corporate farm. For example, another farm might have offered a higher rent, or a higher payoff might be obtained by farming the land individually. Such a landowner represents a credible threat of withdrawal. By contrast, the type 2 (L2) is a landowner who has no better opportunity for their land elsewhere and there is no credible threat of withdrawal. Let us denote the probability that the landowner is of type 1 (credible threat) by p. This indicates the proportion of type 1 landowners in the population. (1-p) is thus the probability of landowner of type 2 (no credible threat). In the game tree in Figure 1, Nature (N) plays the first move of the game by randomly choosing the type of landowner. Both paths from nodes F1 and F2 are similar. Only the probability of the path, p or (1-p), and some payoffs differ. It is assumed that there is asymmetric information about the landowners' type. Although 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.

Figure 1: The tree of the game between a manager and a landowner



N: Nature. F: corporate farm's manager. L: landowner.

Table 1 offers an alternative representation showing the possible actions of each player. The tree in Figure 1 indicates that the manager of a corporate farm can choose between two actions "offer a low rent" and "offer a high rent". Concerning the landowners, the tree indicates that they can either agree or refuse the offer. This is based on their willingness to accept a low or a high rent. Hence, the negotiation process can be represented as one-shot: the manager and the landowner meet together once to decide the level of the rent and make simultaneous offers. The landowner would ask either for a low rent or for a high rent, which are the two possible actions "Low rent" and "High rent" presented in Table 1.

There are four possible strategy profiles in the game and therefore four possible payoff vectors, as shown by 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 agreed upon. If the rent is low, the outcome is "no change"; 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 is 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 terminated. The landowner withdraws their land from the farm; the outcome is "land withdrawal". The latter is the most interesting and important case in view of the overall IDEMA objectives as well as the aims of this deliverable.

Table 1: The payoff matrix of the game between a landowner and a corporate farm manager

		LANDOWNER		
		Low rent	High rent	
		No change	Land withdrawal	
	Low rent	$\Pi^F_{lowrent},\Pi^L_{lowrent}$	$\Pi^F_{withdrawal}, \Pi^L_{withdrawal}$	
FARM				
		Rent increase	Rent increase	
	High rent	$\Pi^F_{\mathit{high rent}}, \Pi^L_{\mathit{high rent}}$	$\Pi^F_{high\ rent}, \Pi^L_{high\ rent}$	

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 a low rent, the land is rented for a 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 pay a low rent than a high rent, but the land withdrawal is costly for the farm as it reduces the area farmed and consequently it may decrease the revenue and farm profit. In addition, the farm manager may generate utility from personal income and prestige related to the management of a larger farm. Therefore, the farm's payoffs are ranked as follows:

$$\Pi_{low \, rent}^{F} > \Pi_{high \, rent}^{F} > \Pi_{withdrawal}^{F} \tag{1}$$

As far as the landowner is concerned, irrespective of their type, 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):

$$\Pi_{high\,rent}^{L} > \Pi_{withdrawal}^{L1} > \Pi_{low\,rent}^{L} \tag{2}$$

$$\Pi_{high\ rent}^{L} > \Pi_{low\ rent}^{L} > \Pi_{withdrawal}^{L2} \tag{3}$$

Players choose to play the strategy that maximises their payoff. The type 1 landowner is indifferent between receiving a high rent in the corporate farm and withdrawing the land, but refuses to rent out the land to the corporate farm for a low rent. In other words, if the farm plays "low rent", the landowner's best response is to play "high rent", and if the farm plays "high rent", the landowner is indifferent between "low rent" and "high rent". Therefore, 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 the termination of the rental contract.

There is no dominant strategy for the manager, as their payoff maximisation depends on the landowner's strategy, but the manager has a set of two best responses. If the landowner plays "low rent", the manager's best response is "low rent", but if the landowner plays "high rent", the manager's best response is "high rent". If there were no information asymmetry and the landowner's type was 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, both players would choose to play "high rent", and land would be rented for a high rent. In the case of a type 2 (no credible threat) landowner, both players would choose to play "low rent", and 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, the manager knows that "high rent" will be played by the opponent with probability p, and "low rent" will be played with probability 1-p. The manager will then play the strategy that brings the greater of the possible expected payoffs. If the manager plays "low rent", respectively "high rent", their expected payoff would be $E\Pi^F_{lowrent}$, respectively

$$E\Pi_{lowrent}^{F} = (1 - p)\Pi_{lowrent}^{F} + p\Pi_{withdrawal}^{F}$$
(4)

 $E\Pi_{highrent}^{F}$, where:

$$E\Pi_{highrent}^{F} = (1-p)\Pi_{highrent}^{F} + p\Pi_{highrent}^{F} = \Pi_{highrent}^{F}$$
(5)

Whether $E\Pi^F_{lowrent}$ is smaller or greater than $E\Pi^F_{highrent}$ is specific to each farm as it depends on the value of the payoffs $\Pi^F_{lowrent}$, $\Pi^F_{highrent}$, $\Pi^F_{withdrawal}$. Therefore, all three outcomes are possible, but their frequency depends on the value of the probability p. For example, if the proportion of landowners with credible threat (type 1) in the population is small, p is close to 0 and consequently $E\Pi^F_{lowrent}$ is approximately $\Pi^F_{lowrent}$, which is greater than $E\Pi^F_{highrent} = \Pi^F_{highrent}$. Similarly, if p is very large, $E\Pi^F_{lowrent}$ is approximately $\Pi^F_{withdrawal}$, which is strictly less than $E\Pi^F_{highrent} = \Pi^F_{highrent}$.

So far, however, the whole 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, which has been a typical situation in the Central and Eastern European agriculture before the accession to the EU, and cannot afford a rent increase, the game reduces to the upper half of Table 1. In such a situation, for 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. Therefore, the outcome "land withdrawal" can occur in any farm which is financially constrained and cannot afford a rent increase.

In summary, the frequency of each of the three outcomes depends on the level of the probability p and of the farm 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 application of the Single Area Payment (SAP)

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

<u>Proposition 1:</u> 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 the low profitability or loss-making, but most landowners had no better alternatives to receive higher returns on their land outside the corporate farm.

After the introduction of the SAP, the following two propositions concerning landowners' behaviour can be formulated:

<u>Proposition 2:</u> After the implementation of the CAP the frequency of the outcome "no change" will decrease.

<u>Proposition 3:</u> After the implementation of the CAP the outcome "withdraw land" will not be more frequent than the other two outcomes "no change and "ask for a rent increase".

It is proposed that the frequency of the outcome "no change" might decrease as, following the CAP implementation, p will increase as more landowners might be able to make a credible threat of withdrawal. The SAP delivered without attached requirements 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 the SAP is expected to relax farm financial constraints and thus more farms will be able to offer a high rent. Second, the probability p will not increase dramatically, meaning that 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. If the landowners contemplate to withdraw land for individual management, the SAP might not be enough to offset the costs of cross-compliance (under the assumption that the crosscompliance will be properly enforced and monitored). The other reason is that the 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. Survey of corporate farms' landowners

In the previous section some prior expectations about the landowners' behaviour under the SAP were formulated. In order to see whether there is empirical support for these propositions, a survey of individual owners of land rented to corporate farms was carried out in Slovakia and the Czech Republic. In Slovakia, two surveys were undertaken: first, the common IDEMA farm survey and, second, an additional survey of individual landowners. The Czech Republic was not one of the case study countries chosen for the IDEMA farm survey. However, due to the good collaboration with the Czech project participant, the Research Institute of Agricultural Economics in Prague (VUZE), it was possible to implement a survey of landowners in order to investigate whether there are country differences in the landowners' intentions stemming from the differences in external environment. This section describes the modalities of the survey of individual landowners in Slovakia and the Czech Republic.

3.1. The questionnaire

The questionnaire was designed by Imperial College and INRA in collaboration with the Research Institute for Agricultural and Food Economics in Bratislava (VUEPP) and VUZE. The core of the questionnaire was identical for the two countries. Because this was the only survey conducted in the Czech Republic, the Czech questionnaire was expanded by some additional questions (see both countries' questionnaires in Appendices 1 and 2).

The questionnaire included four sections. The first section incorporated questions regarding the respondents' and their plots' characteristics. The questions regarding landowners' characteristics collected information on their age, education, employment status, distance from place of residence to the corporate farms, ownership (or a lack) of an individual farm. Detailed questions about the plots rented to the corporate farms were also included, such as the size and production on the plot, whether a land consolidation programme was implemented in the area (for the Czech Republic only), the rent level and how it was paid. Respondents were asked if they were offered a higher rent outside the corporate farm in the past, or (for the Czech Republic only) if there was interest to purchase their plot. Finally, this section incorporated questions aimed at understanding the landowners' relations with the corporate farms' management (length of the relationship, frequency of the contacts) and with the other landowners of the corporate farm (whether they knew who they were).

The Czech questionnaire included a few questions concerning the characteristics of the corporate farms, namely the legal type, the utilised agricultural area (UAA) and whether the respondent had a role in the farm in addition to land ownership, e.g. employee or partner. Such questions were not included in the questionnaire for Slovakia. Originally the idea was that such information would be collected through the farm survey in Slovakia. It was expected that the surveyed corporate farms would provide the addresses of their landowners. However, the corporate farms found the questions sensitive and refused to release this information fearing that the survey might provide incentives to their landowners to start land renegotiations.

As the objective of the survey was to understand whether the SAP would induce a change in landowners' behaviour, information about their past behaviour before the EU accession was necessary. In the second and third sections of the questionnaire the landowners were asked whether in the past they had asked for a rent increase or have withdrawn some land and the reasons for doing so or opting for the status quo. Finally, in the forth section concerning future intentions, landowners were provided with the Single Area Payment Scheme modalities and asked whether this scheme would stimulate them to renegotiate their rent or to withdraw

their land from the corporate farms and the reasons behind their intention to change or not their behaviour. They were also asked whether they would consider selling their land. The time horizon was set at five years.

3.2. The data collection

As mentioned above, the original idea was that in Slovakia the sampled corporate farms would be approached, asked questions about their rented land, and own intentions and attitude under the SAP, and then asked to provide some of their landowners' addressees. The landowners' questionnaire would then be mailed to these landowners. This would have been a fruitful way to compare the expectations of the corporate farm management for their landowners' behaviour with the landowners' intentions. As this was not possible due to the refusal of the corporate farm management to release the addresses of the landowners, landowners were selected from the cadastres. In both countries, the cadastral areas were chosen to be representative in terms of agricultural conditions, less favoured areas (LFA), economic development and implementation of land consolidation.

Four NUTS IV districts were chosen in Slovakia (see Map 1): Trnava and Banovce in the West Slovakia region (NUTS II), Banska Bystrica in the Middle Slovakia region (NUTS II), and Bardejov in the East Slovakia region (NUTS II). The district in the East Slovakia is on the Polish border and is characterised by a low economic development, high unemployment and large LFA coverage (mountainous area). Contrary, both districts in the West Slovakia are in a productive lowland or hilly area and benefit from a better economic situation in terms of wealth and employment. The district in the Middle Slovakia is in a mountainous area and is positioned between the East and West regions in terms of economic situation. It benefits from substantial revenues from tourism.

In the Czech Republic the questionnaires were sent to landowners located in 17 different NUTS III sub-regions (see Map 2). These sub-regions can be aggregated in three main regions, relatively homogenous in terms of agricultural conditions. Survey Region 1 (Southern Moravia) includes five districts. This area, situated in the South-East of the country on the border with Austria and Slovakia, is agriculture oriented, with the highest production of wine (90 percent of the country's vineyard) and cereals. The unemployment rate is however higher than in the rest of the country. A large share of the area has been or still is under the land consolidation programme (38 percent of the region area), which is more than the average for the Czech Republic. Survey Region 2 (Central Bohemia) consists of six districts, situated in the northern middle Bohemia. This area is characterised by a high population density and low unemployment rate, and by flat landscape which results in larger average farm size than in the two other regions. The land consolidation concerns 16 percent of this region's area. Seven districts are located in the survey Region 3 (Highlands), three of them are in the Central highlands of the country and four in Western Bohemia around Prague. These seven districts were grouped together as they have similar geographical conditions (highlands; 70 percent of the area under LFA). However, the Western Bohemia districts benefit from a better soil quality and more developed infrastructure (due to the proximity of Prague). Only 10 percent of the area is covered by past or current process of land consolidation.

VUEPP and VUZE implemented the survey in spring 2005. In Slovakia, the survey was carried out face-to-face by interviewers mandated by VUEPP. These interviewers were known to VUEPP to be either members of farmers' organisations, working in public administration or former managers of collective farms. They were asked to find out landowners using their social networks. This may have created bias in the Slovakian sample.

Therefore the results should be interpreted with caution. Altogether 183 landowners were interviewed.

In the Czech Republic, the interview was predominantly by post and 1,353 questionnaires were used: 1,311 sent by post and 42 delivered personally. Out of the questionnaires sent by post, 64 were not delivered due to, for example, a change in address. Overall, 202 questionnaires were returned with a return rate of 14.8 percent.

3.3. Explorative analysis of the sample

The usable records were 183 in Slovakia (100 percent) and 172 (out of 202) in the Czech Republic. The respondents are allocated among the regions as follows: in Slovakia 47 percent in the West Slovakia, 16 percent in the Middle Slovakia and 37 percent in the East Slovakia; in the Czech Republic 31 percent in the Southern Moravia (Region 1), 48 percent in the Middle Bohemia (Region 2) and 21 percent in the Highlands (Region 3).

Tables 2, 3 and 4 present some characteristics of the respondents, of their relationship with the corporate farm in which they rent out their land, and of the rented plots respectively. In both countries the respondents are relatively aged (59 and 62 on average in Slovakia and the Czech Republic respectively), mainly retired, with a completed high school. Very few of them farm some land individually outside the corporate farm. The respondents in Slovakia seem to have closer contacts with their corporate farm compared to the Czech respondents: a smaller percentage live more than 50 km away from the corporate farm; they have been in relation with the farm for a longer period (18 years compared to 11 years in the Czech Republic); almost half of them have more than two contacts per year with the farm management (against 13 percent in the Czech sample); the majority collect their rent on site (while the majority of the Czech respondents receive it by mail or bank transfer); more Slovak than Czech respondents know their fellow landowners in the corporate farm. These differences might be due to the survey procedure. The face-to-face interviews in Slovakia might have captured more respondents in the vicinity of the corporate farms and less absentee landowners.

Regarding the plots rented out by the respondents, the average size is small: 1.9 ha in Slovakia and 0.6 ha in the Czech Republic. The inheritance law in both countries allows land to be split between heirs and is a source of land ownership fragmentation. The respondents usually rent out several plots to the same corporate farm: 2.4 on average in Slovakia and 6.6 on average in the Czech Republic. It should be noted that in Slovakia the respondents were asked about the characteristics of their plots with a maximum number of 4 plots on the answer sheet, while in the Czech Republic the respondents had to state the exact number of plots they had in their ownership. Summing up the area of individual plots indicates that the total area per landowner rented out to the corporate farm is similar for both samples, around 4 ha. The annual average rent per hectare received by the respondents in Slovakia is 11.5 euro and in the Czech Republic 36.5 euro. This is a low level for Slovakia but higher than the national average in the Czech Republic (on average, 22 euro in the Czech corporate farms in 2003; VUZE, 2004). However, in both countries the rent is much lower than in the EU-15 (e.g. in 2002 in France 115 euro; Agreste, 2002).

Table 2: Characteristics of the sample landowners

	Slovakia	Czech Republic
Age		
Average age	59.2	61.6
Education		
Share of respondents having completed (%):		
primary school only	16	30
high school or other vocational school	59	57
university	25	13
Activity		
Share of respondents (%):		
employed	42	34
retired	53	55
other	5	11
Distance from the corporate farm		
Share of respondents living (%):		
less than 50 km away	93	80
more than 50 km away	7	20
Private farming		
Share of respondents farming individually (%)	5	1
Average area farmed (ha)	39.1	69.6
Average area owned (ha)	16.8	16.5

 $\begin{tabular}{ll} \textbf{Table 3: Characteristics of the relationship between the sample landowners and their corporate farm \\ \end{tabular}$

	Slovakia	Czech Republic
Relation duration		
Average number of years the respondents have been in relation	18.3	10.6
with the farm		
Number of contacts		
Share of respondents having, per year (%):		
0 face-to-face contact with the farm	6	25
1 face-to-face contact with the farm	31	48
2 face-to-face contacts with the farm	21	14
more than 2 face-to-face contacts with the farm	42	13
Payment of rent		
Share of respondents having their rent paid by (%):		
collecting it on site	67	31
receiving it otherwise (mail, bank transfer)	33	59
Knowledge of the other landowners		
Share of respondents knowing the farm's other landowners (%):		
knowing none of them	8	35
knowing some of them	87	62
knowing all of them	5	3

Table 4: Characteristics of the plots rented out by the sample landowners to corporate farms

	Slovakia	Czech Republic
Number of plots per landowner		
Average number of plots per landowner	2.4	6.6
Maximum number of plots of a landowner	4*	44
Plot type (%)		
arable	60	67
grassland	37	27
other	3	6
Plot size		
Average area of a plot (ha)	1.9	0.6
Largest plot per landowner; sample's average (ha)	2.7	3.4
Total per landowner (all plots)		
Average total area rented by landowners (ha)	4.10	4.08
Average annual rent per ha (euro)	11.5	36.5

^{*} The questionnaire limited the information to 4 plots.

3.4. Analysis of the survey responses

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

Table 5 provides information about the past behaviour of the respondents regarding rent renegotiations and land withdrawals. Very few of the respondents asked for a rent increase in the past two years (4 percent in Slovakia, 1 percent in the Czech Republic) or withdrew some of their land in the past five years (5 percent in Slovakia, 2 percent in the Czech Republic). This provides support to the Proposition 1 that the status quo was the most frequent strategy in the past. The last row of Table 5 details the reason for the choice of status quo. Most of the respondents have never considered to ask for a rent increase or to withdraw their land because there were no better opportunities elsewhere for their land (in terms of renting out to another farm, selling land, farming it individually). This is consistent with the low share of respondents who had a higher rent offered in the past (1 and 6 percent in Slovakia and the Czech Republic respectively). More have had offers for purchase of their land (one third of the sample in the Czech Republic), but the prices proposed might have been too low since most of them did not sell land. Another common reason for not withdrawing land in the past is that the landowners stated that they preferred to have their land managed by somebody else. Very few respondents mentioned difficulties with the identification of their plot within the corporate farm field or with a substitute plot proposed by the farm. Regarding those who asked for a rent increase in the past, most of them did so because they believed that the rentals had been increased for some of the other landowners, rather than because they were able to impose a credible threat of withdrawing. Almost no request for a rent increase had been accepted by the corporate farms justifying this by financial constraints. Respondents who withdrew some land from the corporate farms in the past needed it to farm individually in Slovakia and sell it in the Czech Republic.

Table 6 reports the landowners' intentions within a five year horizon in the CAP context. The respondents were first briefed about the modalities of the SAP. Few of them were well informed (e.g. 22 percent in the Czech Republic), which indicates a problem with the dissemination of information about the CAP implementation. The landowners were then asked whether the introduction of SAP would change their behaviour towards the corporate farm in which they were renting land. Although the majority claimed that their behaviour would not be influenced (79.8 and 69.8 percent in Slovakia and the Czech Republic respectively), these shares are smaller than the shares of landowners who opted for the status

quo before the introduction of the CAP. This supports Proposition 2. Only few of the respondents would consider to withdraw their land (13.6 percent in Slovakia, 10.4 in the Czech Republic), supporting Proposition 3. The respondents justified their choice for the continuation of the status quo by the preference to have their land managed by somebody else. Having in mind the high age of the respondents this is not surprising. The other common reasons were that there were still no better opportunities for their land outside the corporate farm, in particular that the amount of SAP was not large enough to cover the costs of withdrawing land and producing on it or keeping it in GAEC. The respondents who intend to withdraw land mainly plan to sell it. Few are considering keeping their land in GAEC only, and even fewer to use their land for farm production. This is not surprising, as in order to receive the SAP, at least 1 ha of land must be operated, while the landowners have mainly smaller plots.

3.4.2. Factors affecting landowners' intentions

Merged sample (both countries)

One important issue is to understand the underlying reasons behind the landowners' choice for status quo 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. This allows understand the factors that influence the probability of choosing an option in relation to the other options. The logit has been performed on a merged sample including the Slovakian and Czech respondents in order to investigate which of the determinants are common to both countries. The dependent variable is categorical and takes the value 2 if 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 the central planning. The main factors relate to landowners' social characteristics and capital endowment (Rizov et al., 2001), and to the risk 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).

Several models were tested and the selection was based on the goodness of fit statistics (significance of the model; R-square; percentages of correct predictions). 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 landowners' variables, two land characteristics are included: the total area rented out per landowner in hectares and the annual rent per hectare in euro. The expectation is that the larger the area owned by the landowner, the more likely they would withdraw their land as the SAP might cover the accompanying costs. As for the rent, intuitively the higher the rent, the more satisfied the landowners are, and thus they are less likely to move away from the status quo. Finally, a dummy equal to 1 for the Czech landowners and 0 for the Slovak landowners is included. The correlations between all the explanatory variables were checked using the Pearson coefficients, but they were sufficiently low. (In particular, the coefficient between the age of the respondents and their length of relationship with the farm was only 0.25.)

As shown in Table 7, 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, Table 7 indicates that the social characteristics (age and education) have no influence on the intention to change, but the contact 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. This might be explained by the fact that almost universally the land areas are small. However, the lower the level of rent that they currently receive, the more likely 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 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 the 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 the state-owned land (1.5 percent of the administrative price of land). As explained in IDEMA Deliverable 9, the lack of flexibility might also be felt with regard to the time period of the rental contract which 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 period of the contract can be shorter. All this might have influenced the intentions of the landowners in the two countries.

Additional analysis of the Czech sample

In the Czech Republic the questionnaire included four additional pieces of information. The first aspect deals with the characteristics of the contract: whether the contract is for a fixed or indefinite period (indefinite for 42 percent of the respondents); whether the contract can be terminated by the landowners before its end by a notice and what is the termination notice period (60 percent of the respondents indicated that they can terminate the contract); and whether the rent level is fixed for the contract duration (the case of 54 percent of the respondents). Intuitively, it can be assumed that the landowners who have less contractual flexibility will be less likely to ask for a rent increase. Dummies accounting for this information were included in a multinomial logit applied to the Czech respondents' answers.

The second aspect concerns the possible dual position of the landowners in the corporate farm: they were asked whether in addition to being a factor owner they were a shareholder/partner/member (the case of 13 percent of the respondents) or an employee (3 percent of the respondents). It might be expected that landowners who are more involved in the farm and receive other returns (dividends or wages) are less likely to put the farm's survival at risk and therefore more likely to maintain the status quo regarding their land. Two dummies representing these dual situations were included in the logit for the Czech Republic. The third aspect concerns the competition for land in the area. In the past 34 percent of the Czech sample were offered to sell their land. They did not sell for various reasons (e.g. low price, difficult access to the plot), however, this might have given them a signal for existing opportunities. A dummy equal to 1 if the landowner has been proposed to sell their land in the past and 0 otherwise was included in the model. Finally, the fourth aspect relates to the application of the land consolidation programme. The landowners who benefit from the land consolidation have a stronger bargaining position in the rent renegotiation process as their land can be easier to withdraw. So far, 13 percent of the Czech respondents have benefited from the land consolidation. A dummy equal to 1 if this is the case and equal to 0 otherwise was included in the logit model. The dummies accounting for the characteristics of the rental contract and for the employee or shareholder status of the landowners did not have significant influence on the intentions and reduced the model's goodness-of-fit. They were removed from the final specification.

Table 8 presents the model results. They confirm the merged sample's findings that a close relation with the farm induces less rent renegotiations and withdrawals, and that the higher the rent received, the less likely are the landowners to ask for a rent increase or withdraw. As expected, the landowners who have received an offer for purchase of their land in the past are more likely to withdraw. Land consolidation creates also a strong incentive (dummy significant at 1 percent level) to withdraw land.

Influence of the regional location

Intended behaviour might differ the between the regions within a country due to some specific features of each region (economic development, dynamism, agricultural performance). The application of a multinomial logit to individual countries did not provide important insights and therefore only frequencies are presented here.

Table 9 presents the share of respondents according to their intention in each of the three regions in the Czech Republic. There are two interesting observations. First, in the Highlands the landowners are more "dynamic", in the sense that this sub-sample has the lowest share of respondents opting for a future status quo (50 percent of the region's respondents), while the sub-sample in the Middle Bohemia has the largest share of the status quo preferences (74.6 percent). Second, in the Southern Moravia the landowners are more likely to withdraw their land (21.4 percent of the region's respondents), while this is the least likely in the Middle Bohemia (4.5 percent).

In order to understand the reasons behind these differences ANOVA was performed. The analysis allows assessing whether there is a significant difference in the characteristics of the sub-groups. The results are presented in Table 10. They show two important features. In Region 2 (Middle Bohemia) the rent received by the respondents is much higher than in the two other regions, reflecting the economic wealth of the area due to the proximity to Prague. This is consistent with the finding that in this region the landowners are the most likely to opt for maintaining the status quo in future. The second obvious difference between the regions concerns the implementation of land consolidation. Half of the Region 3 (Highlands) subsample's cadastres have been subject to land consolidation, while the share is only between 2

and 4 percent in the other regions. This might be the main reason why the respondents in Region 3 appear to be the most likely to change their situation by asking for a rent increase or withdrawing their land. The reason for the highest intended withdrawals in Region 1 (Southern Moravia) might lie in the relation with the farm. In this region landowners have the least frequent contacts with their farm and few of them have other ties with the farm (being shareholder, partner, member, employee).

Slovakia also presents regional differences. For example, moving from west to east means worse agricultural and economic conditions. It is therefore expected that the landowners in the west have better opportunities for their land and are more likely to withdraw than those in the east. Table 11 displays the respondent's intentions regarding their land according to the region. As expected, the largest share of withdrawal intentions is found in the west (20.9 percent of the west respondents compared to 11.9 percent of the east respondents). However, surprisingly, it is in the Middle Slovakia that the landowners are all fully satisfied with their situation and do not intend to ask for a rent increase or to withdraw (100 percent choose the status quo). The small area available for withdrawing by landowners in Middle Slovakia might explain this. ANOVA analysis results, presented in Table 12, indicate that the highest rent is paid in West Slovakia, while the lowest in East Slovakia. The low prevailing rent in East Slovakia might reflect the economic situation of the region and thus the low opportunities for better returns.

The regional analysis suggests that there are important differences stemming from the general economic development in the regions. Corporate farms in the lagging behind regions, particularly with insufficient land consolidation, may not be exposed to credible threat of withdrawals as the opportunities for better returns on land ownership outside the corporate farms are very limited.

Table 5: Past behaviour of sample landowners concerning their land

	Slovakia	Czech Republic
Competition from other farms		
Respondent having had a higher rent offered by another farm in the past 2 years (%)	1	6
Respondent having had an offer for purchase of their land in the past 2 years (%)	NA	34
General past behaviour		
Share of respondent who (%):		
Category 1- asked for a rent increase in the past 2 years	4	1
Category 2- withdrew land in the past 5 years	5	2
Category 3- never considered renegotiating or withdrawing in the past 5 years	40	78
1- Past rent increase		
Reason for asking (share of respondents in Category 1 in %):		
able to get a higher rent elsewhere	14	50
heard that other landowners in this farm had their rent increased	57	50
other	29	0
Average increase asked for (% of the current rent)	87	53
Share of requests that were accepted (share of respondents in Category 1 in %)	14	0
Reason for refusal from the corporate farm (share of the respondents refused in %):		
farm could not afford it	100	NA
other	0	NA
2- Past withdrawals		
Reason for withdrawing (share of respondents in Category 2 in %):		
not happy with the rent level	56	0
wanted to start own farm	100	0
wanted to sell land	0	75
other	0	0
Average area withdrawn (ha)	16	1
Use of the land after withdrawal (share of respondents in Category 2 in %):		
individual farming	78	0
sold	0	100
Other	0	0
3- Past status quo		
Reason for not asking for a rent increase (share of respondents in Category 3 in %):		
thought not possible to get it	42	8
rent was appropriate or increased without asking for it	12	39
the contract specifies that the rent cannot be increased	2	22
other	0	1

Reason for not withdrawing (share of respondents in Category 3 in %):		
rent satisfactory or increased	18	13
no opportunity for a higher rent elsewhere	34	36
too risky or unprofitable to farm individually	57	20
easier to have land managed by somebody else	65	35
to be part of a corporate farm matches own values and beliefs	47	20
to be part of the corporate farm gives other benefits	14	7
other	7	3

NA: not available (the question was not included in the questionnaire for this country).

The respondents were free to choose several reasons for their past behaviour. Therefore, the numbers do not sum to 100.

Table 6: Intended future behaviour of the sample landowners concerning their land

	Slovakia	Czech Republic
Future options (within the next 5 years)		
Share of respondents who intend to (%):		
Category 1- ask for a rent increase	7	20
Category 2- withdraw land	14	10
Category 3- no change	80	70
2- Future withdrawals		
Reasons (share of respondents in Category 2 in %):		
to rent the land out to another farm	36	11
to produce on it individually	0	6
to maintain it individually in GAEC	24	11
to sell it	64	72
Other	16	0
3- Future status quo		
Reasons (share of respondents in Category 3 in %):		
SAP too low to compensate for the risk of individual farming	39	12
SAP too low to compensate for the costs of maintaining the land in GAEC	39	12
impossible to have a higher rent elsewhere	31	12
current rent satisfactory	9	9
easier to have the land managed by somebody else	62	36
to be part of the corporate farm matches own values and beliefs	50	17
to be part of the corporate farm gives other benefits	16	3
Other	7	3
Sale of land		
Share of respondents considering selling their land within the next 5 years (%)	21	40
To whom preferably (share of respondents considering selling %):		
corporate farm where currently renting out	11	35
on the market to the highest bidder	100	58

The respondents were free to choose several reasons for their intentions for the future. Therefore, the numbers do not sum to 100.

Table 7: Multinomial logit: Sample landowners' intention within the next 5 years in the Czech Republic and Slovakia (a merged sample)

	Intend to ask fo	or rent increase (1)	Intend to with	draw land (2)	
Variable	Parameter	Significance	Parameter	Significance	
Intercept	-3.250	**	-0.644		
Age	-0.005		-0.005		
High education, dummy	-0.413		-0.674		
Length of relationship with the farm	-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				

The reference category (0) includes those landowners who neither intend to renegotiate their rent nor withdraw their land.

^{*, **, ***} denotes significance at 10, 5, 1 percent level.

Table 8: Multinomial logit: sample landowners' intention within the next 5 years in the Czech Republic

	Intend to ask for rent increase (1)		Intend to withdraw land (2)	
Variable	Parameter	Significance	Parameter	Significance
Intercept	-0.543		1.098	
Length of relationship with the farm	-0.096	*	-0.031	
Frequent contact, dummy	-1.392	**	-1.508	*
Annual rent received	-0.019	*	-0.035	**
Received offers got land purchase in the past, dummy	-0.104		-1.927	***
Land consolidation programme, dummy	1.115		2.321	***
Pearson Chi-square		31.3 ***		
Nagelkerke R-square	0.30			
Percentage of correct predictions	69.4			
Number of valid observations	111			

The reference category (0) includes those landowners who intend neither to renegotiate their rent nor withdraw their land.

Table 9: Future behaviour of the sample landowners by region in the Czech Republic

	Region 1	Region 2	Region 3
	(Southern Moravia)	(Middle Bohemia)	(Highlands)
Number of surveyed landowners	42	67	32
Share of respondents within the next 5 years who due to SAP intend to (%):			
1- ask for a rent increase	24	21	31
2- withdraw land	21	5	19
3- no change	55	75	50

^{*, **, ***} denotes significance at 10, 5, 1 percent level.

Table 10: Sample landowners profile per region in the Czech Republic

	Region 1	Region 2	Region 3	ANOVA F-test
	(Southern Moravia)	(Middle Bohemia)	(Highlands)	
Average rent per ha (euro)	15.9	59.6	13.8	55.0 ***
Average total area rented (ha)	5.0	3.8	3.5	0.8
Average size of a rented plot (ha)	0.3	0.9	0.5	5.6 ***
Relationship with the farm (years)	11.8	9.5	11.6	3.6 **
Share of respondents having, per year (%):				
0 or 1 face-to-face contact with the farm management	80	70	70	0.8
2 face-to-face contacts with the farm management	10	17	12	
more than 2 face-to-face contacts with the farm management	10	13	18	
Share of respondents living (%):				
less than 50 km away	81	82	76	0.3
more than 50 km away	19	18	24	
Average age	61.8	62.4	59.6	0.6
Share of respondents (%):				
employed	30	35	36	0.1
retired	63	50	53	
other	7	15	11	
Share of respondents having completed (%):				
primary school only	43	22	29	4.2 **
high school or other vocational school	6	11	29	
university	51	67	42	
Share of respondents being in the corporate farm (%):				
shareholder/partner/member	25	40	35	1.2
employee	20	40	40	0.6
Share of respondents whose cadastre has been subject to land				
consolidation (%)	4	2	50	41.4 ***
Share of respondents who have received a purchase offer for				
their land in the past (%)	36	34	30	15.8 ***

^{*, **, ***} denotes significance at 10, 5, 1 percent level.

Table 11: Future behaviour of the sample landowners by region in Slovakia

	West Slovakia	Middle Slovakia	East Slovakia
Number of surveyed landowners	86	30	67
Share of respondents within the next 5 years who due to SAP intend to (%):			
1- ask for a rent increase	11	0	5
2- withdraw land	21	0	12
3- no change	69	100	83

Table 12: Sample landowners profile per region in Slovakia

	West Slovakia	Middle Slovakia	East Slovakia	ANOVA F-test
Average rent per ha (euro)	17.0	8.3	5.1	20.2 ***
Average total area rented (ha)	4.2	2.5	4.7	5.6 ***
Average size of a rented plot (ha)	1.8	2.5	1.8	3.3 **
Relationship with the farm (years)	17.2	12.2	22.9	11.2 ***
Share of respondents having, per year (%):				
0 or 1 face-to-face contact with the farm	46	33	25	1.4
2 face-to-face contacts with the farm	13	10	38	
more than 2 face-to-face contacts with the farm	41	57	37	
Share of respondents living (%):				
less than 50 km away	93	80	99	5.1 ***
more than 50 km away	7	20	1	
Average age	61.0	59.2	56.9	2.3 *
Share of respondents (%):				
employed	41	40	46	0.1
retired	57	57	46	
other	2	3	8	
Share of respondents having completed (%):				
primary school only	20	10	13	0.9
high school or other vocational school	54	80	57	
University	26	10	30	

^{*, **, ***} denotes significance at 10, 5, 1 percent level.

4. The survey of corporate farms

4.1. The questionnaire

As already mentioned, the survey of corporate farms in Slovakia was carried out within the frame of the main IDEMA farm survey. The questionnaire, the description of the sample and the analysis of the survey data are presented in Deliverable 14. Here only these sections that relate to the cross-checking of the answers of the landowners and the analysis of the potential conflicts between the stakeholders concerning profit allocation are discussed. As argued in the introduction, the specificity of corporate farms is their complex organisation involving several stakeholders. In order to understand which are the stakeholders that would mainly benefit from the SAP, questions were first asked about the current farm decision-making characteristics (number of members/partners, directors and managers; and voting procedure in cooperatives). Then the respondents were asked how the farm profit used to be allocated and how they intend to allocate it in the future amongst the alternative needs (working capital, investment/interest, dividends and land rentals).

One section of the farm questionnaire focused on the potential conflicts between the farms' managers and their landowners from the point of view of the farm management. The first questions aimed at collecting information about the characteristics of the landowners (e.g. individuals, state, municipality), the area rented, the rent level and the terms of the contract. Then the respondents were asked whether some of their landowners had asked for a rent increase in the past, or withdrew some land, and whether the corporate farm management knew whether their landowners had been offered a higher rent outside the corporate farm. Finally, the questionnaire asked about the opinion of the corporate farms' respondents on the potential behaviour of their landowners in the context of the introduction of the CAP payments.

The survey respondents were asked to state their role in the farm (director, manager or other), as this might bias the answers.

As described in Deliverable 14, the face-to-face survey was implemented in the autumn 2005. One hundred and fifty two corporate farms were interviewed in Slovakia, including 101 cooperatives and 51 companies.

4.2. Analysis of the survey responses

4.2.1. Relation with the landowners

Table 13 presents information about the landowners who rent their land to the corporate farms surveyed. It also presents the average land area of the surveyed farms provided by their FADN records. As the rent level is a key variable in the analysis, it is presented in the table from two sources – FADN and the farm survey.

The farms have hundreds of private landowners owning on average 68 percent of the total land rented in by the sample corporate farms. On average 24 percent of the land is rented from the State and the remaining 8 percent from the Church and municipalities. The companies rent more from the State than the cooperatives. The land rented in from private landowners is more fragmented in the cooperatives than in the companies. The average rent paid indicated by both FADN records and respondents is about 14 euro per ha (the cooperatives pay a lower rent than the

companies). This rent level is consistent with the responses by the landowners within the individual landowners' survey.

Table 13: Characteristics of the sample farms concerning their rented land

	All farms	Cooperatives	Companies		
	(152)	(101)	(51)		
FADN 2002 data					
Average UAA (ha)	1,866	1,904	1,791		
Average rent per ha (euro)	14.3	12.9	17.0		
Data 1	from the survey				
Average share of land rented from:					
Private landowners (%)	68	73	58		
State (%)	24	21	32		
Other (%)	8	6	10		
Average number of private landowners	789	877	612		
Size of private landowners' plots:					
Average (ha)	2.8	1.7	5		
Smallest (ha)	0.7	0.15	1.7		
Largest (ha)	43	27	75		
Average rent per ha:					
Private landowners (euro)	16.9	14.7	21.2		
State land (euro)	12.9	12.3	14.3		
Time period of contract	In general 5 or 10 years				
Notice for contract termination	In general 1 year				

In order to compare the past behaviour stated in the landowner survey, corporate farms respondents were asked whether some of their landowners had requested a rent increase or had withdrew some of their land in the past. Table 14 summarises the answers. About one third of the farms have had requests for a rent increase, but by only 8 percent of their landowners. Among these farms, 39 percent increased the rent; the remaining refused justifying their refusal by financial constraints. More farms were subject to withdrawals (59 percent of the sample) but by a few landowners (3.5 percent of all landowners). On average 3 percent of the sample farm UAA was withdrawn accounting for about 2 ha per landowner. The large majority of the individuals who withdrew land wanted to start their own farm (85 percent). This is again consistent with the landowners' survey in which 100 percent of the landowners who withdrew land in the past stated that they did this to start their own farm (see Table 5). The fact that only few landowners asked for a rent increase or withdrew land, as stated by the corporate farms' respondents, supports the Proposition 1 concerning the prevalence of the status quo options in the past.

Comparing the legal forms, the main difference is that more companies (63 percent) than cooperatives (25 percent) accepted the requests for a rent increase. This might be explained by the larger returns generated by companies (see Deliverable 14, Chapter 8), which make them more flexible. Another observation is that a smaller land area was withdrawn from the companies than from the cooperatives. This might relate to the above findings that the cooperatives were less able to meet their landowners' demands for rent increases.

Table 14: Past behaviour of the sample farms landowners (% in brackets)

	All farms (152)	Cooperatives (101)	Companies (51)		
1	Requests for a rea	nt increase	\		
Farms that had requests for a rent increase	51 (34)	32 (32)	19 (37)		
Landowners who requested a rent increase	48 (8)	48 (5)	49(12)		
Reason given by landowners for the request					
Farms that accepted to increase the rent ^a	20 (39)	8 (25)	12 (63)		
Financial constraint used by the other farms for refusing the request	75	70	87		
	Land withdr	awals			
Farms who experienced withdrawals	89 (59)	62 (61)	27 (53)		
Landowners who withdrew	27 (3.5)	27 (3.6)	25 (3.4)		
Total UAA withdrawn from the farm; ha (% of UAA)	52 (3)	56 (3.5)	42 (1.9)		
Justification of withdrawal by the start of own farm	85	82	93		

^a In brackets: as a percentage of farms having had requests for a rent increase.

Corporate farms' respondents were then asked to give their opinion on the possible future behaviour of their landowners. As presented in Table 15, three quarters of the respondents expect some request for a rent increase, but few of them believe that land withdrawals will take place. This also supports Propositions 2 and 3 that the status quo option will be less frequent in future but that withdrawals of land from the corporate farms will not be massive.

Table 15: Sample farms' expectations about their landowners' future behaviour (%)

	All farms (152)	Cooperatives (101)	Companies (51)
Share of farms that expect SAP to induce more landowners to ask for a rent increase	76	75	77
Share of farms that expect SAP to induce more landowners to withdraw	20	20	20

In order to understand why respondents have different expectations about their landowners' future behaviour, an ANOVA analysis is performed. The results are presented in Table 16. Farms whose respondents do not think that the SAP will change their landowners' behaviour have already had a larger share of rentals in their cost of production structure (2.6 percent against 1.9 percent). Farms whose respondents believe that the SAP will give incentives to their landowners to withdraw rather than ask for a rent increase are more often located in unfavourable areas, have already experienced more withdrawals in the past and have a larger share of individual landowners in their land portfolio, meaning a larger share of landowners that can capture the SAP individually.

Table 16: Characteristics of the sample farms depending on their expectations about landowners' future behaviour: ANOVA

about failubwifers future i	Charlour. Arto th		
Landowne	ers will change behaviour versu	ıs no change	
	Farms that expect SAP to induce more landowners to ask for a rent increase or to withdraw (120 farms)	Farms that expect SAP to induce more landowners to opt for the status quo (32 farms)	F-test
Share of farms located in the Middle Slovakia (%)	24	6	5.1 **
Average share of rentals in total costs (%) ^a	1.9	2.6	2.8 *
Landowners	will request a rent increase ver	sus withdrawal	
	Farms that expect SAP to induce more landowners to ask for a rent increase (91 farms)	Farms that expect SAP to induce more landowners to withdraw land (29 farms)	F-test
Share of farms located in mountainous LFA ^a (%)	14	28	2.7 *
Share of farms which experienced withdrawals in the past 5 years (%)	53	76	4.9 **
Average share of land rented in from private landowners (%)	67	74	3.5 *

^a source FADN (2002).

The above analysis confirms the theoretical propositions and is consistent with the information gathered through the landowners' survey. The main policy conclusion is that the SAP will induce more landowners to review their situation within the corporate farms and to try to capture the capitalisation of the SAP through higher rents. However, it is unlikely that they will massively withdraw their land from the corporate farms. Therefore, the expected behaviour of landowners does not put the very existence of the corporate farms under question, at least within the short- to midterm horizon. However, if this is true on average, financially constrained farms may quickly loose their capacity to compete for land in the conditions of increased demand which has started being observed in the NMS after the EU accession. Therefore, a substantial structural change might be expected within the corporate farm sector with a better allocation of land to the more efficient users.

The next section broadens the analysis beyond the landowners to the other stakeholders by investigating the possible conflicting uses of the profit in corporate farms. The issue of profit allocation can also provide some additional insights into the relations between the farms and their landowners.

4.2.2. Use of farm profit

Past and intended future profit allocation

Respondents were asked how the farm profit is allocated at the end of the year among the different alternative uses: to cover farm current expenses, investment in fixed assets, payment of dividends to shareholders, increase in land rent or other (including an increase in wages of hired labour and debt repayment). As shown in Table 17, in the past the profit was used first to finance the current expenses and then for investment. The increase of the rentals was the least used option by the sample farms

^{*, **, ***} denotes significance at 10, 5, 1 percent level.

(only 5 percent of respondents). This confirms the above findings that few farms accepted their landowners' requests for a rent increase on the grounds that they could not afford it. This is also consistent with the theoretical argument that when control and ownership are separated, managers may have an agenda of their own, often different from the one of factor owners.

The respondents were also asked to rank the same options from the least probable to the most probable in future taking in consideration the SAP. Table 17 shows a strong dependency on the past behaviour; the preferences for the future appear to be similar to the past. The most favoured option is to finance the farm current operations, followed by investment. The increasing of the land rent is still the least preferred option.

Table 17: Past and future use of profit by the sample farms

	All farms	Cooperatives	Companies	
	(152)	(101)	(51)	
Profit used for:				
(% of	respondents who answ	vered yes to an option)		
Farm current operations	63	64	61	
Investment	50	46	59	
Dividends	20	18	24	
Land rent increase	5	6	2	
Other	18	19	18	
	Profit will be u	ised for:		
(% of resp	ondents who ranked a	n option as most probable	e)	
Farm current operations	71	71	69	
Investment	24	26	22	
Land rent increase	1	6	0	
Other	4	3	6	

ANOVA was carried out to disentangle the farm characteristics that may explain the variations in the farms' decisions regarding the distribution of their profit. Only the statistically significant results are presented in Table 18 for the past profit allocation and Table 19 for the future allocation. Information presented in Table 18 suggests that those farms which in the past did not allocate any profit to investment have a higher share of livestock production in their output mix and they are farms that did not benefit much from investment subsidies. This tends to suggest that some of the variations were induced by policies which may have stimulated investments in certain types of production. These farms are also smaller measured by the land area and pay a lower rent to their landowners. Table 18 also indicates that the only significant difference between the cohorts of farms that used part of their profit to increase the land rent and the farms that did not allocate any profit to rent increases lies in the type of owners (credible threat of land withdrawal) and the managers' information about the type of landowners. Forty three percent of farms that used some profit for rent increases knew that some of their landowners had been offered a higher rent outside the corporate farms (against 18 percent for the farms that did not increase the rents).

Regarding the intended future use of farm profit displayed in Table 19, farms that are less likely to reinvest profits have received a smaller amount of investment subsidies in the past (7.1 against 25.4 thousand euro). Farms that intend to allocate some of their profit to rent increases in the future have received in the past more other (i.e. not investment) subsidies per ha, which suggests that they might be less financially constrained.

Table 18: Characteristics of the sample farms depending on their past use of profit: ANOVA

	Profit was use	ed for investment	
	Farms that used profit for investment (76 farms)	Farms that did not use profit for investment (76 farms)	F-test
UAA (ha) ^a	2,057	1,676	3.1 *
Average rent per ha (euro) ^a	17.6	10.9	6.7 ***
Average investment subsidies (thousand euro) ^a	17.9	5.2	3.1 *
Average share of crop in the revenue from sales ^a (%)	43	34	4.9 **
	Profit was used	for rent increase	
	Farms that used profit for rent increase (7 farms)	Farms that did not use profit for rent increase (145 farms)	F-test
Share of farms knowing that in the past some of their landowners were offered a higher rent	43	18	3.0 *

^a Source FADN (2002).

Table 19: Characteristics of the sample farms depending on their intentions for the future use of profit: ANOVA

Profit will be used for investment					
	Farms that will most	Farms that will less	F-test		
	probably use profit for	probably use profit for			
	investment	investment			
	(37 farms)	(114 farms)			
Average investment subsidies	25.4	7.1	4.8 **		
(thousand euro) ^a					
	Profit will be used f	for a rent increase			
	Farms that will most	Farms that will less	F-test		
	probably use profit for a	probably use profit for a			
	rent increase	rent increase			
	(12 farms)	(139 farms)			
Average subsidies per ha (excl.					
investment subsidies) (euro) ^a	123.6	92.5	2.9 *		

^a Source FADN (2002).

Note: "Farms that will most probably use profit for investment" are those whose respondents ranked this option as 1 (the most likely); "Farms that will less probably use profit for investment" are those whose respondents ranked this option as 2, 3, 4, or 5 (5 is the least likely).

"Farms that will most probably use profit for a rent increase" are those whose respondents ranked this option as 1 or 2 (most or relatively likely). "Farms that will less probably use profit for a rent increase" are those whose respondents ranked this option as 3, 4, or 5 (5 is the least likely).

^{*, **, ***} denotes significance at 10, 5, 1 percent level.

^{*, **, ***} denotes significance at 10, 5, 1 percent level.

The intention of the sample farms concerning their future profit allocation is also investigated according to the farm size. As explained in Deliverable 14, Chapter 8, the sample farms were split into two size groups, small and large, based on a cluster analysis. The analysis used five size characteristics from 2002 FADN: UAA in ha, labour in annual work units (AWU), value of capital stock, value of sales and value of total revenue including subsidies. Two clusters were identified by applying a two-step clustering process based on the log-likelihood distance (Table 20).

Table 20: Cluster means according to farm size (FADN 2002 data)

	Small farms (108 farms)	Large farms (44 farms)
UAA (ha)	1,241	3,400
Labour (AWU)	45	142
Capital (thousand euro)	1,811	6,682
Sales (thousand euro)	497	1,994
Revenue incl subsidies (thousand euro)	608	2,345

These clusters are used to investigate the differences in the intended use of future profits by farm size. As shown in Table 21, a larger share of small farms give priority to profit reinvestment, 27 percent, compared to the share of large farms of 19 percent. Differently, a larger share of large farms give the priority to the future use of profit for covering current expenditure (79 percent), compared to the share of small farms (68 percent). More large farms than small ones intend to offer a rent increase (16 percent against 5 percent for the small farms). ANOVA reveals statistically significant differences in the average ranking of these three options by the size clusters. The differences in intentions regarding investment and current operations between the small and large farms are intuitive. The small farms would like to increase the size of their activities and thus plan to invest, while the large farms might have reached the efficient size but need to cover their day to day operation. Concerning the variations regarding the use of profit for rent increases, this might be explained by the fact that large farms rely more on rented land, and thus the potential land withdrawals could have more severe consequences for them than for the small farms.

Table 21: Intended future use of profit by small and large farms: ANOVA

	Small farms	Large farms	F-test
	(108 farms)	(44 farms)	
Share of farms giving priority to (%) ^a			
investment	27	19	
current operations	68	79	
rent increase	5	16	
Average ranking of intended future use of profit for ^b			
investment	1.83	2.12	5.1 **
current operations	1.47	1.23	2.8 *
rent increase	3.68	3.37	5.2 **

^a Farms are classified as giving priority to a particular option if they ranked the option as the most probable (rank 1) for investment and current operations, and the most or relatively probable (ranks 1 and 2) for rent increase.

^b Possible rankings are from 1 (the most likely) to 5 (the least likely).

^{*, **, ***} denotes significance at 10, 5, 1 percent level.

An interesting policy insight is provided by the study of the relation between the farm intentions for a future use of profit and their beliefs (or otherwise) in the irreversibility of decoupling. It is proposed that farm intentions concerning their future use of profit depend on whether farm managers/directors believe that the decoupling is a sustainable policy or they expect another policy switch, either towards coupled payments or to a full removal of farm support. First, as described in Deliverable 14, Chapter 8, the farms have been clustered according to the three credibility statements. The respondents were asked to rate these statements. The possible ratings were from 1 "Not probable at all" to 6 "Very probable". The statements 6.1.1 and 6.1.2 suggest respectively that the policy change towards a decrease in sectoral support and a move to less distortive instruments are credible, while the statement 6.1.3 suggests that the policy is not credible. A two-step cluster analysis based on likelihood was performed on the three credibility statements with the number of clusters restricted to three (Table 22). The Cluster "no payments" includes the farms which consider that the probability of full removal of payments is high (a high rating of the statement 6.1.2). The farms in the other two clusters think that payments are more likely to remain, but as decoupled, Cluster "decoupled payments" (a high rating of the statement 6.1.1), or that policy will revert to coupling, Cluster "coupled payments" (a high rating of the statement 6.1.3).

Table 22: Cluster means according to credibility statements

	Cluster "decoupled payments" (88 farms)	Cluster "no payments" (37 farms)	Cluster "coupled payments" (27 farms)
6.1.1. Payments decoupled from production but conditional on other service provision will be maintained.	4.7	2.9	2.3
6.1.2. Farmers will receive no support payments what so ever.	2.0	4.9	1.6
6.1.3. Payments will be recoupled to agricultural production.	2.8	3.9	5.2

The use of these clusters to investigate the differences in intended future profit allocation is presented in Table 23. Farms that do not think the decoupled payments are credible are more likely to use their profit for investment and less likely to use it for current operations. This means that they do not intend to change their behaviour as they think that the decoupled payments and GAEC are temporary policy instruments. The expectations for payments linked to production create incentives for investing. Concerning the use of profit for a rent increase, the farms that believe in the irreversibility of the 2003 CAP reform and the continuation of decoupled payments are more likely to give priority to land rentals in comparison with the farms expecting the payments to be recoupled or to disappear all together. This might indicate a perceived danger of landowners' withdrawals under decoupling.

Table 23: Intended future use of profit by the sample farms according to their perception about policy credibility

	Cluster "decoupled payments" (88 farms)	Cluster "no payments" (37 farms)	Cluster "coupled payments" (27 farms)
Share of farms giving priority to (%) ^a			
investment	21	22	41
current operations	74	73	59
rent increase	13	3	0

^a Farms are classified as giving priority to a particular option if they ranked the option as the most probable (rank 1) for investment and current operations, and the most or relatively probable (ranks 1 and 2) for rent increase.

5. Conclusions and implications

The widespread existence of corporate farms in the NMS has raised doubts about their viability under the CAP direct payments, the so called Single Area Payments (SAP). The preference of the 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 general economic environment. This was coupled with the fact that many city dwellers received land during the post-communist land reforms but did not have skills and experience in farm production and management. The accession to the EU and the introduction of the CAP support, and in particular the SAP, have improved the market conditions in the NMS and increased the 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.

The negotiations between the corporate farm managers and the landowners concerning the rent level have been conceptualised as a simple two-player one-shot game. The propositions generated by the game, representing the negotiations between a corporate farm manager and an individual landowner, suggest that the SAP might induce more rent renegotiations but, overall, withdrawals will be infrequent. The analysis of the results from a survey of landowners who rent out land to corporate farms in Slovakia and the Czech Republic, and of a survey of corporate farms in Slovakia, finds support for these propositions.

Several factors appear to be important if the corporate farms were to maintain their land base. The investigation of the determinants of the landowners' behaviour indicates that while the current low rent level could increase the requests for rent renegotiations, what appears to be important in the landowners' decision-making is the relationship between 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 SAP but also on non-pecuniary characteristics. Therefore, those corporate farm managers who keep a close and established relationship with their landowners are less likely to experience massive withdrawals of land.

Another important factor influencing the decision to withdraw from the corporate farms is the progress of the land consolidation programme. Land consolidation schemes started at the beginning of the transition in both Slovakia and the Czech Republic with the aim to facilitate the access to the individually owned plots and to reduce land fragmentation. The landowners who benefited from such schemes have obviously seen their bargaining power increased vis a vis the corporate farm management. However, the consolidation process has been very slow and therefore it is not expected that it will have a substantial impact on the landowners' behaviour in the mid-term.

There are variations in the corporate farms' attitude toward rent increases. Overall, the corporate farm management rarely puts the land rent increase as a future priority. However, larger farms which are more dependent on numerous landowners give a higher priority to the use of future profits to reward land factor owners than the smaller farms do. Also, farms that trust the policy drive to decoupling and perceive the 2003 CAP reform as irreversible are keen to use the profit for rent increases. They realise that the decoupled payments that do not require production are easier to be

captured by the individual landowners, and that they have to share with the factor owners the increase in the value of land due to the capitalisation of support. This indicates a perceived danger of landowners' withdrawals under decoupling. Farms that do not think the decoupled payments are credible are more likely to use their profit for investment. This means that they do not intend to change their behaviour as they think that the decoupled payments and GAEC are temporary policy instruments. The expectations for payments linked to production create incentives for investing.

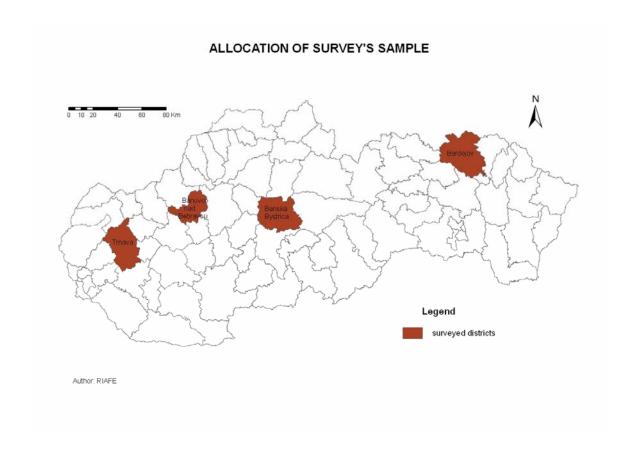
Overall, the main policy conclusion in this deliverable is that the SAP will induce more landowners to review their situation within the corporate farms and to try to capture the capitalisation of the SAP through higher rents. However, it is unlikely that they will massively withdraw their land from the corporate farms. Therefore, the expected behaviour of landowners does not put the very existence of the corporate farms under question, at least within the short- to mid-term horizon. However, if this is true on average, financially constrained farms may quickly loose their capacity to compete for land in the conditions of an increased land demand which has started being observed in the NMS after the EU accession. Therefore, a substantial structural change might be expected within the corporate farm sector with a better allocation of land to the more efficient users.

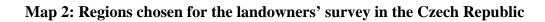
A note of caution is required. Although this research does not suggest the existence of an imminent danger for the survival of corporate farms, so far the landowners have not been well informed about the modalities of the Single Area Payment Scheme. It is beyond doubt that, in parallel with the experience with the SAP implementation, more information will be made available through both formal and informal channels. This will be accompanied by the increase in the level of the SAP due to the phasing-in process. Therefore, the results from the current intention surveys might be an underestimation of the incentives of landowners to withdraw land from the corporate farms. Most probably, the demand for land will increase and the corporate farms will face a stronger competition for land and will be pressurised by the market forces to increase the rents

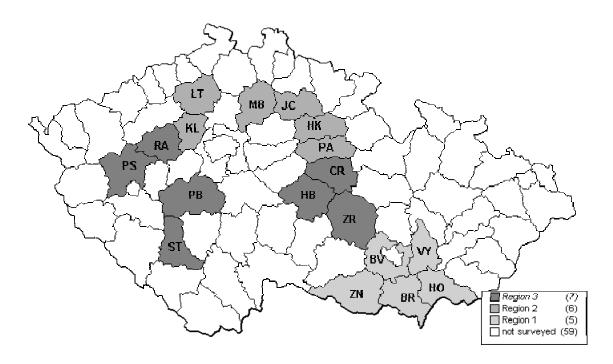
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Map 1: Regions chosen for the landowners' survey in Slovakia







District	Abreviation	Region
Brno - venkov	BV	1
Břeclav	BR	1
Hodonín	НО	1
Vyškov	VY	1
Znojmo	ZN	1
Hradec Králové	HK	2
Kladno	KL	2
Litoměřice	LT	2
Jičín	JC	2
Mladá Boleslav	MB	2
Pardubice	PA	2
Havlíčkův Brod	HB	3
Chrudim	CR	3
Plzeň - sever	PS	3
Příbram	PB	3
Rakovník	RA	3
Strakonice	ST	3
Žďár nad Sázavou	ZR	3

Appendix 1: Questionnaire to landowners in Slovakia				
1/ Your characteristics				
1.1. Your age: years.				
 1.2. Your formal education: □ Primary school only □ General high school □ Special school □ Special school with exit examina □ University 	ation			
1.3. You are currently: □ Employed □ Retired □ Unemployed □ Other (please specify):				
1.4. How far from the corporate far. □ Less than 10 km □ Between 10 and 50 km □ Between 50 and 100 km □ More than 100 km	m do you live in kilometres?			
1.5. If you have your own farm, ple question 1.6.	ase answer the following table. If no, go to			
Since when have you been farming privately?				
How many hectares do you farm?	ha			
How many hectares do you own?	ha			
What is the main production?	☐ Mainly crop production (please specify the percentage of crop production in your farm total revenue:%) ☐ Mainly livestock production (please specify the percentage of livestock production in your farm total revenue:%) ☐ Mixed			
1.6. How long have you been in relationships years	ationship with management of the corporate farm?			
1.7. How many (professional or not you have with the management of $t = 0$	professional) face-to-face contacts per year do he corporate farm?			

 \square 1 \square 2

 \square More than 2

□ None of them □ Some of them □ All of them	natively well some	e other fandowner	s of the corporate	Tattii!
1.9. Please answer the corporate farm.	ne following ques	tions for each plot	that you rent out	to the
	plot 1	plot 2	plot 3	plot 3
How big is this plot?	ha	ha	ha	ha
Please specify the type of land for each plot.	☐ Arable ☐ Grassland ☐ Vine,orchard ☐ Other	☐ Arable ☐ Grassland ☐ Vine,orchard ☐ Other	☐ Arable ☐ Grassland ☐ Vine,orchard ☐ Other	☐ Arable ☐ Grassland ☐ Vine,orchard ☐ Other
Since when are you the owner of this plot?				
Since when do you rent out this plot to the corporate farm?				
How much is the rent that you received last year for each plot (please specify the				
currency and for how many months the rent is stated)				
1.10. How is your re ☐ You usually go to ☐ You usually get y ☐ Other (please spe	o the corporate far your rent in another cify):	er way (by mail, b	ank transfer, etc).	
level established by ☐ The rent depends ☐ The rent depends	the corporate farm on the plot's char on other paramete	n? (you may tick s racteristics such as	several options) s soil quality, loca ():	tion
1.12. Have you been years? ☐ Yes ☐ No	proposed a highe	er rent for your lar	nd elsewhere in th	e past 2
1.13. If yes, who pro ☐ Another corporate ☐ An individual far ☐ A farm managed ☐ Other (please spe	e farm. mer. by a foreigner.			

2/ Rent negotiation

Please fill the column corresponding to your situation. If none of both situation applies to you, please go to part 3.

Situation A	Situation B
In the past 2 years, you have asked for a rent increase.	In the past 2 years, you have not asked for a rent increase but you have
	considered it.
2.1.A. What was the reason for asking for a rent increase? (you may tick	2.1.B. What was the reason for considering asking for a rent increase?
several options)	(you may tick several options)
☐ You were able to get a higher rent elsewhere.	☐ You were able to get a higher rent elsewhere.
☐ You heard that other landowners in this corporate farm had their rent	☐ You heard that other landowners in this corporate farm had their rent
increased.	increased.
☐ Other reason (please specify):	☐ Other reason (please specify):
2.2.A. How much was the increase that you asked for approximately?	2.2.B. How much was the increase that you thought to ask for
(please specify whether the increase is stated in currency or in %)	approximately? (please specify whether the increase is stated in
	currency or in %)
2.3.A. Was your request accepted?	2.3.B. Why did not you ask for a rent increase? (you may tick several
□ yes	options)
□ no	☐ You thought you would not get it.
If yes, go to section 3.	☐ You realised that the rent that you were receiving in the corporate
2.4.A. If no, why was not your request accepted? (you may tick several	farm was appropriate.
options)	☐ The corporate farm increased your rent without you asking for it.
☐ The corporate farm thought that your justification for rent increase	☐ Other (please specify):
was not adequate.	_ 0 (F-0 oF 00-5)).
☐ The corporate farm had not enough money to increase the rent.	
☐ Other (please specify):	
2.5.A. What did you then do with your land?	
☐ You kept it in this corporate farm.	
☐ You withdrew it from the corporate farm.	

3/ Land withdrawal

Please fill the column corresponding to your situation.

Situation A □	Situation B	Situation C
In the past 5 years, you have withdrawn land	In the past 5 years, you have not withdrawn	In the past 5 years, you have never considered
from this corporate farm or from another	land from this corporate farm or from another	withdrawing land from this corporate farm or
corporate farm.	corporate farm but you have considered it.	from another corporate farm.
3.1.A. What were the reasons for withdrawing?	3.1.B. What were the reasons for considering	3.1.C. Why have you never considered
(you may tick several options)	withdrawing? (you may tick several options)	withdrawing from a corporate farm? (you may
☐ You were not happy with the level of rent.	☐ You were not happy with the level of rent.	tick several options)
☐ You wanted to start your own farm.	☐ You wanted to start your own farm.	☐ It was easier to have your land managed by
☐ Other (please specify):	☐ Other (please specify):	somebody else.
		☐ It was too risky or not profitable to farm your
		land privately.
3.2.A. How much in total did you withdraw from	3.2.B. How much approximately in total did	☐ There was no other opportunity for a better
any corporate farm?	you consider withdrawing (from any	rent elsewhere.
ha	corporate farm)?	☐ You were happy with the level of rent that
na	ha	you were getting.
3.3.A. What did you do with the land that you	3.3.B. Why did not you withdraw it? (you	☐ To be part of the corporate farm matches
withdrew? (you may tick several options)	may tick several options)	your own values and beliefs.
		☐ To be part of the corporate farm gives you
☐ You rented it out to another farm.	☐ You got a rent increase.	other benefits outside the rent.
☐ You sold it.	☐ You realised that there was no other	☐ Other (please specify):
☐ You started your own farm.	opportunity for a better rent elsewhere.	
\square You rented it back to the same corporate farm.	☐ You were not happy with the land parcel	
☐ Other (please specify):	proposed by the corporate farm.	
	☐ You realised that it was too risky or not	
	profitable to farm yourself your land.	
	☐ Other (please specify):	

4/ The future

☐ To the corporate farm where you are currently renting it out.

☐ Other (please specify):

☐ On the market to whoever proposes the highest price.

4.1. In 2004 CAP direct payments have been introduced. These payments replace the former pre-accession payments and are given to farms with no obligation to produce as long as the land is kept in 'good environmental and agricultural condition'. These payments consist of area payments per hectare and will increase in value over the next 8 years. Would this information make you change your behaviour over the next 5 years, in terms of withdrawing or asking for an increase of rent for the land that you rent out to this corporate farm?

□ yes	□ no
4.1.A. What will you probably do in the next 5 years? (you may tick	4.1.B. Why not? (you may tick several options)
several options)	☐ The CAP direct payments will not be high enough to compensate for the
☐ You will ask for a rent increase in the corporate farm.	risk of private farming.
☐ You will withdraw your land from the corporate farm and rent it	☐ The CAP direct payments will not be high enough to compensate for the
out elsewhere.	cost or maintaining your land in 'good environmental and agricultural
☐ You will withdraw your land from the corporate farm and start or	condition'.
expand your own farm in order to receive the CAP direct payments.	☐ You would not be able to get higher rent elsewhere.
You will withdraw your land from the corporate farm and keep it	☐ You are happy with the level of rent that you get in the corporate farm.
in 'good environmental and agricultural condition' in order to	☐ It is easier to have your land managed by somebody else.
receive the CAP direct payments.	☐ To be part of the corporate farm matches your own values and beliefs.
☐ You will withdraw your land from the corporate farm and sell it.	\square To be part of the corporate farm gives you other benefits outside the rent.
☐ Other (please specify):	☐ Other (please specify):
4.2. Over the next 5 years, would you consider selling your land?	
□ yes	□ no
4.2.A. To whom preferably would you sell your land? (please tick one	
option only)	

Appendix 2: Questionnaire to landowners in the Czech Republic

1. Basic characteristics

1.1. How big is th	he town (village) y	ou have lived in	?		
•	re than 100 000 in				
•	e from 10 000 up		itants		
, .	e from 2 000 up to				
, .	500 up to 2 000 ir		1113		
_	less than 500 inha				
Lis village with	iess man 500 mna	ultanis			
1.2. If you (or yo	ur spouse) have y	our own farm, pl	lease answer the f	ollowing table	
IF NO, GO TO	QUESTION 1.3.				
	, , <u>, , , , , , , , , , , , , , , , , </u>		1.0		
	ı (year) have you l		ately?		
	hectares do you o			ha	
			ided rented land)?		
1.1.4. If you rent	part of your land	to another farm, _l	olease write down	the	
acreage of this la	nd.			ha	
1.1.5. Please spec	cify the percentage	e of particular pr	oductions in your		
total farm revenue%					
□1 Crop production – share of total revenue:					
□2 Livestock production – share of total revenue:%					
	•				
1.3. To how man	y farms do you re	nt your land?			
□1 One		•			
□2 Two					
□3 Three or mor	e (then please indi	icate how many:)		
	· (
1.4. Please specij	fy number of hect	ares do you rent	out to particular f	arms.	
If you	are co-owner of	the land, take int	o account only you	ur ownership.	
Farm 1	Farm 2	Farm 3	Farm 4	Farm 5	
ha	ha	ha	ha	ha	
			•		
IF VOII REN	T OUT VOUR I	AND TO MORI	THAN ONE EA	ARM PLEASE FILL	

IN THE FOLLOWING QUESTIONS FOR THAT FARM WHICH YOU RENT OUT THE LARGEST PART OF YOUR LAND.

1.5. How far from the corporate farm do you live?

\Box 1	Less	than	20	km

□2 Between 20 and 50 km

□3 More than 50 km

1.6. How long have you been in relationship (both in contractual and non-official) with the management of the corporate farm to which you rent your land?
A. Contract relations relating to land year/s B. Contract relations relating to other property relations (restitution,
transformation debt, renting of property, etc) year/s
1.7. How often face-to-face contacts do you have with the management of the corporate farm relating to land contract?
□1 Usually once in several years
□2 Usually once a year
□3 Usually twice a year
□4 Usually more than three times a year
□5 So far, I have not been in touch at all, because it is in charge of my co-owner
1.8. Do you know relatively well some other landowners of the corporate farm?
□1 None of them
□2 Less than half of them
□3 More than half of them
□4 All of them

1.9. Please answer the following questions for each cadastral area in which you rent out your land

If you are co-owner, answer only for the part of land you own, and please specify in question 1.9.7. the size of your share. If the type of culture of the plot virtually does not correspond with that stated in cadastral records, please state that being in cadastral records.

If you do not know the answer write X.

	Cadastral area 1			Cadastral area 2						
1.9.1. Please give the name of COUNTY and CADASTRAL AREA, in which you rent the land										
For each land culture and cadastral area please complete the information below.	A) Arable	B) Grassland, pasture	C) Vineyard	D) Other	E) Total*	A) Arable	B) Grassland, pasture	C) Vineyard	D) Other	E) Total*
1.9.2. Please write the number of plots										
1.9.3. What is the total area of these plots (ha)?										
1.9.4. Since when are you the owner of this plot (year)?										
1.9.5. Since when do you rent out this plot to the corporate farm (year)?										
1.9.6. How much is the rent that you received last year (2004) for each plot? (NOT in CZK//ha but in CZK/plot)										
1.9.7. How big is your co-owner share (%)?	%	%	%	%	%	%	%	%	%	%
1.9.8. Has any type of land reform been made in the above stated cadastral areas?	□1 complex land reform □2 simple land reform □3 no land reform		□1 complex land reform □2 simple land reform □3 no land reform							
1.9.9. If no land reform was done, please state the accessibility of your plots in the field	□1 all without access □2 most of them without access □3 most of them accessible □4 all accessible □4 all accessible □4 all accessible		s							

^{*} This column is to be filled only in case you don't know the type of land culture on your plots

Please answer the following questions relating to your land contract: 1.13. Your land contract is a: □1 Fixed-term contract (give the number of years) □2 Indefinite-term contract 1.14. Your land contract is: □1 Without noticed period □2 With fixed noticed period (give the number of years.....) 1.15. Is the rent level fixed for the whole contract period? □1 yes \square 0 no 1.16. How is your rent usually paid? Please indicate for each option what share of the total rent you receive in that way (the total must be 100 %) Share (%) \Box 1 In cash at the farm □2 You usually get your rent by mail or by bank transfer □3 In kinds □4 Other way (e.g. services provided by company, etc., please specify.....) 1.17. According to you, how is the rent level established by the corporate farm? (you may tick several options) □1 the rent depends on the plot's characteristics such as soil quality, location, etc. \Box 2 the rent depends on the length of the contract □3 the rent depends on other parameters (please specify)...... □4 I don't know 1.18. Please give the number of individual farmers and corporate farms who operate in the cadastral area where you rent out your land, and who could potentially rent your land. $\Box 1$individual farmer/s $\Box 2$corporate farm/s $\Box 3$ I don't know 1.19. Have you been proposed a higher rent for your land elsewhere in the past 2 years? □1 Yes □0 No IF NO, GO TO QUESTION 1.21. 1.20. Who proposed you a higher rent? (you may tick several options) □1 a Czech individual farmer □2 another Czech corporate farm (Cooperative, Inc., Ltd.) □3 another corporate farm managed by a foreigner □4 other (please specify):

1.21. Did anybody offer you to buy your land? □1 Yes □0 No
IF NO, GO TO SECTION 2.
 1.22. Who proposed you this offer? (you may tick several options) □1 the corporate farm where you rent your land □2 an individual farmer □3 another corporate farm □4 another natural person – out of agriculture □5 another non-agriculture corporate farm □6 a broker or a real estate agency □7 other (please specify):
1.23.Did you sell your land to them? (If yes, write how many hectares) □ 1 Yesha □ 0 No
2.Characteristics of the (corporate) farm where you rent out land to IF YOU RENT OUT YOUR LAND MORE THAN ONE (CORPORATE) FARM, ANSWER THE FOLLOWING QESTIONS FOR THE ONE TO WHICH YOU RENT OUT THE LARGEST SHARE OF YOUR LAND.
2.1. What is the legal form of the corporate farm where you rent land to?(tick only one option) □1 Cooperative □2 Limited liability Company □3 Joint-stock Company
2.2.Are you member, partner or stockholder of this farm? □1 Yes □0 No
2.3. Are you employed in this farm? □1 Yes □0 No
2.4. If you are an employee in this (corporate) farm, are you simultaneously manager? □1 Yes □0 No
2.5. What is the total area managed by the farm, approximately? ha

FOR THE FOLLOWING QUESTIONS PLEASE ANSWER FOR ALL LAND WHICH YOU OWN AND RENT OUT TO ANY CORPORATE FARM.

3. Rent negotiation

Please fill in the column corresponding to your situation (tick either column A, B or C).

Situation A	Situation B	Situation C
In the past 2 years, you have asked for a rent increase.	In the past 2 years, you have not asked for a rent increase but you have considered it.	In the past 2 years you have not asked for a rent increase, nor considered it.
3.1.A. What was the reason for asking for a rent increase?(you may tick several options)	3.1. B. What was the reason for considering asking for a rent increase? (you may tick several options)	
□1 You were able to get a higher rent elsewhere. □2 You heard that other landowners in this corporate farm had their rent increased. □3 Other reason (please specify):	□1 You were able to get a higher rent elsewhere. □2 You heard that other landowners in this corporate farm had their rent increased. □3 Other reason (please specify):	
A. How much was the increase that you asked for approximately? (CZK/ha)	3.2. B. How much was the increase that you thought to ask for approximately? (CZK/ha)	
3.2.A. Was your request accepted? ☐1 Yes ☐0 No If yes, go to section 4, if no, continue with question 3.4.	3.3. B. Why did not you ask for a rent increase? (you may tick several options) □1 You thought you would not get it. □2 You realised that the rent that you were receiving in the	3.1. C. Why did not you consider asking for a rent increase? (you may tick several options)
3.3.A. What did you then do with your land?1 You left it in this corporate farm.2 You withdrew it from the corporate farm.	corporate farm was appropriate 3 The corporate farm increased your rent without you to ask for it. 4 Your contract specifies the rent can not be increased during the period of duration 5 Other (please specify):	□1 You were happy with the rent level. □2 Your contract specifies the rent can not be increased during the period of duration. □3 Other (please specify):

4. Land withdrawal

Please fill in the column corresponding to your situation (tick either column A, B or C).

Situation A	Situation B □	Situation C 🗆
In the past 5 years, you have withdrawn land from this corporate farm or from another corporate farm.	In the past 5 years, you have not withdrawn land from this corporate farm or from another corporate farm but you have considered it.	In the past 5 years, you have never considered withdrawing land from this corporate farm or from another corporate farm.
4.1.A. What were the reasons for withdrawing? (you may tick several options) □1 You were not happy with the level of rent. □2 You wanted to start your own farm. □3 You were not happy with the care for your land □4 Other (please specify): 4.2.A. How much in total did you withdraw from any corporate farm?		
it backČZK	☐6 My co-owners did not agree with the plot to be withdraw. ☐7 Other (please specify):	

5. Future

5.1.Did you already have this information?

In 2004 each farmer cultivating agricultural land received CAP direct payment of CZK 3300 per ha of agricultural land. This payment will be annually increasing till 2013. To be eligible for this payment will require farmers to fulfil so called cross-compliance requirements consisting in using farming practices which are in accordance with natural environment protection and all its compounds (water and landscape protection, etc.) without producing anything for market. Moreover, a payment of CZK 3500 per ha of grassland is paid to plots situated in less favourable areas with a given livestock density.

□1 Yes □0 No 5.2 Would the information above make you to change your behaviour.	over the next 5 years, in terms of withdrawing or asking for an increase of
rent for the land that you rent out to the corporate farm?	over the next 3 years, in terms of within awing or asking for an increase of
□YES	□NO
5.3.A. What will you probably do in the next 5 years? (you may tick several	5.3 B. Why not? (you may tick several options)
options) □1 You will ask for a rent increase in the corporate farm. □2 You will withdraw your land from the corporate farm and rent it out elsewhere □3 You will withdraw your land from the corporate farm and start or expand your own farm in order to receive the CAP direct payments. □4 You will withdraw your land from the corporate farm and keep it in 'good environmental and agricultural condition' in order to receive the CAP direct payments.	□1 The CAP direct payments will not be high enough to compensate for the risk of private farming. □2 The CAP direct payments will not be high enough to compensate for the cost or maintaining your land in 'good environmental and agricultural condition'. □3 You would not be able to get higher rent elsewhere. □4 You are happy with the level of rent that you get in the corporate farm. □5 It is easier to have your land managed by somebody else. □6 To be a part of the corporate farm matches your own values and beliefs. □7 To be a part of the corporate farm gives you other benefits outside the rent.
☐5 You will withdraw your land from the corporate farm and sell it. ☐6 Other (please specify):	□8 Other (please specify):
5.2.A. Over the next 5 years, would you consider selling your land?	
□ YES	□NO
5.3.A. To whom preferably would you sell your land? (please tick one option only)	
□1 To the corporate farm where you are currently renting it out. □2 On the market to whoever proposes the highest price. □3 Other (please specify):	

1. What is your age?
2. Your formal education:
1 Primary school
2 Secondary school without "GCE" exam
3 Secondary school with "GCE" exam
4 University degree
3. You are currently (you may tick several options):
1 Student
2 Employed
3 Unemployed
4 Retired
5 Other (please specify):

Your notes

6. Basic individual characteristics

Continuing question 1.9. Please answer the following questions for each cadastral area in which you rent out your land

If you are co-owner, answer only for the part of land you own, and please specify in question 1.9.7. the size of your share. If the type of culture of the plot virtually does not correspond with that stated in cadastral records, please state that being in cadastral records.

If you do not know the answer write ,X.

	Cadastral area 1					Cadastral area 2				
1.9.1. Please give the name of COUNTY and CADASTRAL AREA, in which you rent the land										
For each land culture and cadastral area please complete the information below.	A) Arable	B) Grassland, pasture	C) Vineyard	D) Other	E) Total*	A) Arable	B) Grassland, pasture	C) Vineyard	D) Other	E) Total*
1.9.2. Please write the number of plots										
1.9.3. What is the total area of these plots (ha)?										
1.9.4. Since when are you the owner of this plot (year)?										
1.9.5. Since when do you rent out this plot to the corporate farm (year)?										
1.9.6. How much is the rent that you received last year (2004) for each plot? (NOT in CZK//ha but in CZK/plot)										
1.9.7. How big is your co-owner share (%)?	%	%	%	%	%	%	%	%	%	%
1.9.8. Has any type of land reform been made in the above stated cadastral areas?	□1 complex land reform □2 simple land reform □3 no land reform				□1 complex land reform □2 simple land reform □3 no land reform					
1.9.9. If no land reform was done, please state the accessibility of your plots in the field	□1 all without access □2 most of them without access □3 most of them accessible □4 all accessible				☐1 all without access☐2 most of them without access☐3 most of them accessible☐4 all accessible					

^{*} This column is to be filled only in case you don't know the type of land culture on your plots