

Farm Transformation and Restructuring in Czech Agriculture - After Ten Years -

Tomas DOUCHA, Emil DIVILA

1. Land market and utilisation of land in the Czech agriculture - how crucial is the private ownership of land for the transformation of farm structure

1.1 Supply side – characteristics of the Czech agricultural area from the point of view of its quality and readiness for transfers

1.1.1 Identification, registration and classification of land

The Czech Republic uses a cadastral system inherited from the 18. - 19. Centuries (from the time of the Austro-Hungarian Empire): the total area of the Czech Republic is completely divided into cadastres (more than 13 000 cadastres in about 6 400 municipalities) and within that framework it is again divided into ownership parcels with unambiguous identification (more than 137 mil. parcels, of which 5.4 mil. are agricultural parcels). The whole system is centrally registered on databases (at the Czech Cadastral Office), and some of the maps are digitised (for 10% of parcels). In spite of this relatively advanced identification system, there are some problems, e.g.:

- Consequences of World War II:

When land was expropriated by Germans and Nazi collaborators (traitors) during World War II, it was issued in an allotment system which was not well managed, resulting in present day difficulties with the identification of landowners.

- Problems with the consequences of the communist era:

- Large fields were created to facilitate large-scale agricultural production. These large fields were not always based on the pre-existing parcel allocation of land and have their own land-user identification system.
- The creation of large fields was associated with the consolidation of land in cadastres, and accompanied by the destruction of the original land parcels' physical boundaries such as field roads, and with the construction of new watercourses, etc. However all this was done without any registration of these changes in the parcel record system.
- The suppression of ownership rights (although they were never abolished de iure) in favour of user's rights resulting in an interruption of ownership registration (e.g. ownership transfers inside families) since the 1960's.

Nevertheless, the communist system built upon these foundations and preceded to develop land classification systems. For statistical purposes there is a land classification system according to the variety of crop: the agricultural area is divided into arable land, permanent crops (hop-gardens, vineyards, orchards, gardens) and grassland (meadows, pastures). In the parcel system, there are links between parcels and types of crops, but the revision of these records was often overlooked (e.g. a portion of arable land may have been converted into grassland or naturally afforested without the proper registration).

The communist regime developed yet another land classification system based on the quality of soil. Each part of the natural surface is unambiguously classified by means of the so-called Soil Quality and Ecological Units (SQEU) as basic elements of the system. The elements of the SQEU system are defined by climatic, soil and agro-ecological characteristics. There are more than 2000 SQEUs and each of them was evaluated by the 'rent (profit) effect'. The SQEU system including the land evaluation is completely linked with the cadastral (parcel) system: each parcel is characterised also by the prevailing SQEU as the weighted average of all SQEUs related to a given parcel. It is the basis for the definition of administrative land prices, utilised by the tax system and by the subsidy policy of the government.

Some agricultural land (parcels) has since been permanently damaged (now having a lower soil quality) as a consequence of human industrial activities (mining districts, soil damaged by the pollution in industrial districts, etc.). The use of land as a part of the natural and national wealth of the Czech Republic is regulated by both general and specific legislation:

- The whole land area is protected by the Land Protection Act. This Act defines the legal conditions for the transfer of land from agricultural to non-agricultural purposes, and for variations in which crops are cultivated (e.g. arable land later used as grassland), etc. However, the Act is not sufficiently effective due to the low penalties imposed for violations, and the ill-defined responsibilities of stakeholders.
- More than 20% of agricultural land is situated in landscape, water and nature-protected areas: These protected areas, defined by special laws, are divided into zones where different levels of restrictions apply (e.g. farming is completely prohibited in zone I of water protection areas).

The quantitative indicators related to the Czech agricultural area are presented in tab. 1. To summarise, there is a discrepancy between the real usage of the land and its

ownership registration on the basis of the cadastral (parcel) system. The historically developed physical incongruity between ownership registration and the actual situation creates a very serious obstacle both for the proper administration of the land and for land supply identification. Two different systems are often applied to the same plot: the ownership registration and the user's registration. Furthermore, neither of these systems may correspond with the real situation in the field with regard to registered boundaries, type of crop, and other aspects such as new roads or watercourses, etc.

1.1.2. Physical land organisation in cadastres

In the majority of cadastres, the land is organised to suit the requirements of large-scale socialistic farming. Land consolidation programmes implemented in the communist era, destroyed the physical identifications of the plots' boundaries, for example, large numbers of field roads, etc. This represents a serious impediment to the identification of the land parcels within the field, and also makes it difficult to gain physical access to these fields. The transaction costs necessary to overcome these barriers are a major obstacle to the realisation of the land supply on the Czech land market.

During the reform, the Czech Republic began land re-consolidation processes. However, of the more than 13 000 cadastres, complex re-consolidations have been completed in only 94 cadastres (28 000 ha) and have been initiated in a further 71 cadastres (30 000 ha) until 1999. Although there has also been the so-called 'simple land consolidations', which were implemented for 309 000 ha (7% of the total agricultural area). Owing to the high administrative and financial requirements, these land consolidations seem to be a long-term process, which will continue 'for generations'.

1.1.3 Ownership of land as a basic condition for the development of a land market

After 1989, the land supply aspect has been associated with verified landowners by politically accepted special laws. It has been a unique and time-consuming process of restitution and privatisation. The restitution has two features: (a) restitution of ownership rights, suppressed by the communist regime, and (b) restitution of ownership titles in cases concerning expropriated land. Privatisation concerns only land which is owned by the state and is not liable to restitution. It is related to the active demand for land, while Restitution identifies a passive feature of the demand.

The final consequences of the restitution of land stem from the adopted laws and the historical background of land ownership. The main historical events influencing the results of the restitution are as follows:

- 1620 - White Mountain: the Czech Protestant nobility was defeated by the Hapsburgs at the beginning of the Thirty Years War. The land belonging to the Czech nobility was confiscated and transferred into the ownership of the foreign nobility.
- 1781: the abolishment of the feudal servile system, followed in 1848 by the complete abolishment of the serfdom system, enabling peasants (the richer of them) to buy land.
- 1918: the foundation of the Czechoslovak Republic and 'the first republic' led by Prof. Masaryk, with the prevailing ideology of abolishing the large land ownership of the church and the nobility, and the allocation of the land to small and medium sized farms. From 1919 this ideology was implemented under Land Reform I, however it was never completed due to the lack of state funds available to pay compensation.
- World War II: the expropriation of property belonging to the Jewish population.
- 1946: the confiscation of land owned by Germans and collaborators (traitors), which accounted for a third of the Czech area (particularly in border regions) and 1.7 mil. ha of Czech agricultural land (35.7% of the total Czech agricultural area). A special land allotment system for 'newcomers' (about 170 000) started immediately, but the system was not completed.
- 1947: a revision of Land Reform I was set out, but was interrupted by the events of 1948.
- 1948: the communist regime was established, setting out Land Reform II (all the land of farmers or landowners with more than 50 ha was nationalised). Later, especially at the beginning of the 1950's, the land of some other farmers ('enemies of the regime', kulaks, often medium sized farmers with less than 50 ha) was also expropriated.
- The communist regime of 1948 - 1989 introduced a socialistic form of farming based on state and collective farms. During the 1950's, the first wave of collectivisation based on the principle 'one village - one collective farm (500 - 600 ha)' took place. In the 1970's, the second wave of collectivisation based on the principle 'more villages - one collective farm (3 000 - 8 000 ha)' took place, resulting in extremely large farms. In spite of the suppression of land ownership rights, the private ownership of land (ownership titles) was not abolished.

- The Land Act of 1991 (later frequently amended, of course) constitutes the legislative basis for land restitution. There are two main principles for the restitution:
 - Restitution is concerned with the real situation of ownership titles as of February 25, 1948.
 - The restitution concerns only natural Czech citizens who are living in the Czech Republic.
 - Both of these conditions have been amended many times in order to satisfy the interests of specific groups of citizens, e.g. emigrants from the communist republic. Even some previous limits, which followed the criteria of Land Reform I (e.g. 150 ha of agricultural land as a maximum area to be restituted) were cancelled. Thus, in effect, the restitution enabled the Czech Republic to go back before the 1918 ownership situation and in several cases as far back as the 1620 situation. From the formal point of view, land restitution according to the adopted laws is almost complete. About 3% of restitution claims have not been settled, being subject to court or administrative proceedings.
 - The Land Act was linked to the Transformation Act, which deals with the transformation of collective farms. In 1992 - 93 collective farms were transformed in accordance with the Transformation Act Law. The land was only one of the criteria in the formula for the distribution of collective farm assets (i.e. 50% by land, 30% by other assets brought in a collective farm, and 20% by labour participation). Those landowners who decided not to establish individual farms, leased their land to the transformed co-operative farms (coops) or to other users.
 - The privatisation of land, that is the sale of land belonging to the state is quite a different 'story'. The Land Privatisation Act was only accepted in 1999, and is still in its initial stages. It concerns about 500 000 ha of agricultural land (the state land area amounts to a total of 814 000 ha of agricultural land) and only natural Czech people are eligible to buy the land (under conditions specified by the law, including long-term instalment plans). State land has been leased to farmers and particularly to those farmers who privatised non-land assets before, in 1994 - 1995. In any case, the method used to privatise state lands will have important implications for future farm structure formation in Czech agriculture.
 - In summary, during several years of reform land was reinstated to its private owners. The supply side of the land market was clarified in terms of ownership. What remains? Particular points to address include the continuing task of land privatisation and the socially sensitive issue of restoring land to the church and to Jewish people. However, land ownership remains extremely

fragmented divided between millions of citizens as well as the state and municipalities.

1.2 Land market

The land market exists, but for the most part it takes the form of a lease market. The lease market accounts for about 90% of the total agricultural area utilised by farms of legal and natural people. The land (lease) market is stimulated by:

- The growing demand, particularly in some regions (those in the vicinity of cities and big towns, border regions - where the hope of accession to the EU has led to speculation) and in localities where more firms are farming and competing for the local land;
- The relatively low price of land.

On the other hand, the land market (realised especially by sales and purchases) is particularly inhibited by:

- the low profitability of input into agriculture;
- the continuing monopolistic position of large farms in some localities (however, some local monopolistic farms are going out of business and their assets and leased land is then transferred to other farms, which are often located in quite different parts of the country);
- high transaction costs on transfers of land, including problems with the physical identification of fields (parcels, plots);
- incomplete land consolidations in cadastres (problems with physical access to fields requiring alternative solutions, e.g. exchanges of fields between owners);
- the land tax system until 1999: in the case of the land farmed by co-operative farms (which represents the majority of this land), the tax was paid by users, not by owners;
- the incomplete privatisation of the relatively large acreage of state land;
- lesser involvement from the many landowners who usually live in towns and other more subjective reasons (e.g. the expectation of higher prices for land in the future, internal problems with decisions in cases where land parcels are owned by more than one member of an extended family, due to the interrupted ownership registration during the communist regime).

The Research Institute of Agricultural Economics in Prague (RIAE) has carried out regular annual surveys to monitor sales, purchases and the market prices of agricultural land. Only 0.1 - 0.15% of the total agricultural area enters the land market annually.

For land prices, the monitoring of rents paid for land leasing, (which have started to vary according to the region), is more valid.

The price of Czech agricultural land is still many times lower than that of more developed countries, including the neighbouring EU countries. This is why the land is protected from purchase by foreign applicants. According to the Foreign Exchange Act (Exchange Control Act), a foreign applicant can buy the land or related real estate¹ only in specific cases (e.g. the heritage, if the real estate is a part of the tenancy by entirety and one of the partners is a foreigner). Under the negotiations associated with the EU accession, the Czech Republic applied for a transitional period, during which the present ban for foreigners (citizens and companies from the EU countries) should remain in place. This is in order to prevent land and real estate being purchased as, or for the construction of, secondary residences. The length of the transitional period has not yet been specified (Hungary is negotiating 10 years, Poland 18 years).

A deeper analysis of the problem (e.g. how many foreigners would really have an interest in buying Czech land, in which regions and for what purpose, and how long Czech land prices would maintain their current low level so attractive to foreigners). Nevertheless, there is foreign interest in farming in the Czech Republic. Recently the number of farms operated by foreigners has grown from 15 in 1997 to 100 in June 2000 (plus another 106 foreign firms providing services for crop and livestock production).

1.3. Land utilisation – the farm structure development

The primary and secondary² restitution of land and other non-land assets, the transformation of collective farms, the privatisation of the state's non-land assets and the state's offer to lease the state land, together with state³ investment support, have

¹ Real estates, which form the agricultural land pool for the purpose of the Foreign Exchange Act, include land under farming, together with the temporary uncultivated land, ponds or watersheds for fishery, and non-agricultural land required for farming (field roads, plots for irrigation equipment, etc.).

² Secondary restitution is when a primary restituent sells or leases the gained assets to other farms and usually stops his/her farming (which was often only a „dummy” farming to comply with the restitution laws).

³ The forms of investment support for emerging new farms have been changing. In 1991 – 1992 the state supported new farms by direct grants. In the period 1992 – 1993 interest free loans represented the main form for these purposes. Since 1994, investment support is provided by the Support and Guarantee Farm and Forestry Fund (SGFFF) in the form of interest subsidies on commercial credits, and state guarantees. For the farms based on the privatisation of non-land assets, the state enabled long-term instalments. The entities emerging from the transformation of collective farms utilised assets of owners (and at the same time „non-members”) of the transformation shares for free for

created the conditions for the allocation of land to new emerging farms. The development of the land use by farms of various legal statuses and according to the size of farming is presented in graphs 1 and 2. From the graphs and from other information sources it is evident that:

- There was a rapid growth in individual farms until 1994, significantly supported in the first years of reform by state subsidies (investment grants) and by other measures and regulations stemming from the Land Act, e.g. a special regulation on the transfer of assets previously (in the communist regime) brought as shares into collective and state farms (if they took over unsuccessful collective farms before 1989) to new established individual farms⁴.
- The restructuring, especially the ratio between co-operative and individual farms, slowed after 1994, as a real consequence of the applied agricultural policy with the orientation on stabilisation and farm incomes.
- In the framework of co-operative farms, there is an accelerating process transforming coops into joint stock and other companies. The main driving forces behind this process are the obligation to settle transformation shares of non-members since 1999 (to avoid the settlement), and better conditions for the concentration of the economic power of farms into a few managerial hands⁵. Nevertheless, the transformation of coops into joint stock companies improves the capital structure of the farms and their economic stability⁶.

seven years, as a rule (it is according to the Transformation Act, postponing the settlement of these shares until 1999). However, there are big problems with the settlement of all these commitments from the perspective of these farms today (see below).

⁴ Some co-ops showed a reluctance to transfer assets. This is why Parliament adopted the Sanction Act in 1993, transferring the responsibility for restitution directly on to the managers of co-ops. For several reasons (particularly long-term court procedures) the law only had a marginal importance in practice.

⁵ The large number of farms as legal entities belongs de facto to the category of manager-controlled firms (contrary to the category of owner-controlled firms). There is the issue of those co-ops and companies, in which no individual partner (member, shareholder) or group of partners owns the decisive property share, needed to control firm strategies. Policy-making is controlled by the managers of these firms.

⁶ According to a survey on the economic situation of farms carried out by the RIAE for 1999, the owner's equity in joint stock companies forms roughly two thirds of all assets (equity), whilst in coops it is only about 20%. The differences between the economic situation of joint stock companies and coops are more visible, if we compare the ration outside capital/ owner's equity (joint stock companies less than 50%, coops 137.5%). The rate of indebtedness (the long-term commitments/owner's equity ratio in co-ops represents 81.3%, whilst in joint stock companies only 11.2% (this is the real consequence of the transfer, because in coops the transformation shares are not settled so far, whilst in the joint stock companies which evolved from coops a large part of the original transformation shares were settled by the emission of shares, whose nominal value forms a part of the owner's equity, or basic capital, respectively, of a new company).

- Today, joint-stock companies farm 20.7% of the registered agricultural area and limited liability companies farm 22% of the area. However, we should take into account that among these companies are firms owned by one person or by a very small number of owners (e.g. the combination of an individual ownership with a co-ownership of managers). Contrary to the situation in some developed countries with an uninterrupted market economy⁷, family corporations are currently very rare present Czech agriculture⁸.
- It needs to be noted that the statistics on farm structure do not include very small farms - households with a self-supplying orientation. Their number is not presented (e.g. in graph 2), but according to a 1999 survey from the Czech Statistical Office they farmed 135 000 ha of agricultural land, kept 2% of the total number of cattle, 3% of pigs, 65% of sheep and 18% of poultry (39% of hens).
- There is a developing dual (farm) structure in Czech agriculture: a large number of very small farms vs. a small number of very large farms which cultivate the majority of the agricultural land area.

In conclusion, among the driving forces behind the establishment of new family farms at the beginning of the reform 'nostalgia' was undoubtedly one, other factors include the lack of alternative opportunities for employment outside of agriculture (especially for specialised manpower - i.e. agronomist, zoo technicians, etc.), and expectations of profit and capital speculation. Since 1994, the low-level response to the positive incentives of the agricultural policy, and capital blocked in coops and companies, and other factors have contributed to a slow down in the restructuring. The fragmented ownership of land still stands in the way of its large-scale utilisation. The large farms continue to lease almost 100% of the utilised land. In addition to higher transaction costs on the establishment or enlargement of farms, this phenomenon has some other negative consequences: the risk of a deterioration in soil quality, lower investments into soil, problems with the transfer of arable land into grassland as a part of farm restructuring (owners are afraid of lowering the prices of their land and they usually do not agree with transfers), etc.

⁷ E.g. in USA (1998) about 90% of farm corporations were family corporations, with more than 50% of the stock held by people related „by blood and marriage”.

⁸ According to the preliminary results of a special survey under the EU ACE programme in the Southeast Region of the Czech Republic, no surveyed coops and joint stock companies have the characteristics of a family company (corporation); however, 10% of the surveyed limited liability companies take this form.

2. Why has commercially-oriented family farming not become dominant?

The restitution of ownership rights and titles to land is a basic, but not the only necessary condition for speeding up the restructuring in agriculture for a major part of commercially-oriented family farms or family farming corporations.

Transfers of land are not restricted by legislation in principle; the legislation does not create a barrier to restructuring (with the possible exception of the land tax system applied until 1999 and the obligatory agreement of a landowner in the required transfers of arable land into grassland). The most serious obstacles for the restructuring from the point of view of land transfers and other related factors are as follows (the first two obstacles in particular could be considered as “irreversible“, or “for future generations insurmountable“, respectively):

- The cadastral system of land organisation, with all the adaptations and amendments it has accumulated throughout its history and particularly from the communist regime. In addition the related problems with the physical identification of the location of small land parcels within the large fields of the collective farms.
- The human factor: the rural population’s apparent apathy about launching their own businesses and the continued belief that it is preferable to be a working member/stock-holder/partner in a coop than to risk one’s own capital and incur the transaction costs associated with the establishment of an owner-run business, particularly with all the inherent risks of farming in the current depression in Czech agriculture. This misconception persists despite the fact that some co-operative farms have stopped paying proper wages to their self-employed members/stock-holders/partners; (although workers very often use their labour and other collective benefits for their households and other off-farm activities).
- A very intricate structure of stakeholders in agriculture, developed during the reform, and the limited time available to clarify the roles and opportunities of the different interest groups⁹.

⁹ The interest groups (stakeholders) concerned with agriculture (a citizen may be a member of more than one group) are as follows:

- land-owners: individual farmers on their own land, self-employed in coops or companies which lease land to them, others (citizens outside of agriculture, the state, municipalities) leasing their land to farms;
- owners of non-land assets: individual farmers with own capital; members/stock-holders/partners in coops and companies utilising their capital as deposits or shares, others (citizens outside of agriculture) leasing their capital to farms or leaving their capital „to sleep“ (as in case of owners of the transformation shares of coops, waiting for a settlement after 1999);

- The uncompleted privatisation of state land.
- The low profitability of agricultural assets.
- The agricultural policy after 1994 was focussed on the stabilisation of the farm structure and on a social peace in rural areas.
- The growth of unemployment: before 1996 about 60% of workers left agriculture compared with the 1989 situation. This exodus, especially of younger, educated and more flexible workers, was eased by the absorption capacity resulting from a slow restructuring in other sectors. However, the situation has been changing since 1996 and co-operative farming has started to function as a “buffer“ for rural employment (the “moral hazard” problems for managers who release excess labour must also be considered).

In contrast the restructuring process is stimulated by:

- A very bad economic situation in agriculture, despite the systems of support established by the agricultural policy (this situation forces farms to react, even if that reaction means liquidation this still leads to the transfer of the released assets to other more successful farms);
- The efforts of co-operative farm managers to take over the economic management of the farms they manage;
- The high level of unemployment in rural areas, which encourages the emergence and development of small self-supplying households.

3. How viable is corporate and co-operative farming?

Any attempt to answer this question is hampered by the shortage of credible information and data, even though the RIAE has been carrying out annual economic surveys for about 800 – 1100 farms. Using data from selected years (the reconstruction of a data series is very difficult), various analyses of the economic performance of different types of farms according to their legal status, size, and focus of production have been completed in recent years (Total Factor Productivity Analysis, non-parametrical methods – Data Envelope Analysis: technical and scale efficiency, etc.).

-
- labour owners: individual farmers and their family members; self-employed members/stockholders/partners in coops and companies – managers and manual workers, hired labour – managers and manual workers;
 - entrepreneurs: individual, partners, collective;
 - consumers: food, environmental services, other services;
 - tax-payers;
 - bureaucrats;
 - politicians.

As these results are based on only one year of data it is difficult to identify any general or long-term trends. A more elaborate analysis of a longer time period is only now in preparation. It seems that analytical problems are hidden even in the classification of farms according to non-traditional, “transitive“ criteria. Nonetheless, some conclusions from the completed analysis can be presented, (if with a certain caution) e.g.:

–Profitability is substantially influenced by a farm’s “terms of trade” the annual changes in the relationship between the prices for crop and for livestock and the annually changing agricultural policy (especially regionally differentiated support). These volatile factors significantly inhibit the possible long-term effects of the different forms of farming.

–A „scale efficiency“, or economies of scale are evident. However, for farms of 2000 – 3000 ha it could be said that there are ‘extravagancies’ of scale. As a consequence of state support and the restitution, even relatively small farms (up to 50 ha) are equipped with efficient machinery, and this factors against „scale efficiency“. Furthermore, there is a perception among managers that manpower (human labour) is unreliable, and that it is better to use machinery, regardless of the real relationship of labour to capital prices (and as a result these farms are showing a tendency to over-investment).

–A relatively small number of farms of all types are approaching the maximum productivity that can be achieved under the current economic conditions. For a large number of farms maximum productivity is a far distant goal. These farms ought to go out of business or change owners and farming methods, respectively. This process has begun to intensify.

–The viability of farms as evaluated by their structure of assets and liabilities, liquidity, indebtedness, etc., differs across the farm structure. About 30% of farms operating as legal entities are „ripe“ for liquidation, another 40% of these farms are in a „grey zone“ with the prospect of becoming healthy, and a remaining 30% of these farms have stabilised.

–The viability of farms (sustainability) is also reflected in the proportion of profitable farms. In 1999, the majority (54.2 %) of farms operating as legal entities showed a loss. For coops, the proportion of non-profitable farms was 56.9% and for joint stock companies it was 51.3%. On the other hand, profitable farms prevailed in the category of limited liability companies (53.4%). Among those stabilised farms operating as legal entities, the majority belong to this category which benefit from a more concentrated ownership as a result of the

smaller number of owners/partners¹⁰. Among individual farms, those of about 200 ha seem to be the most viable (sustainable) from this point of view (see tab. 2). In 1999, the best economic results (the difference between incomes and expenditures in the simple form of book-keeping used in the majority of individual farms) calculated per 1 permanent worker were produced by farms in category III (101 – 300 ha) and the worst results by farms in category IV (with more than 300 ha). There is also a big difference among the categories in the ratio of family workers/hired workers: in category I (5 – 50 ha) 95% of all permanent workers are family members and only 5% are hired workers, whilst in category IV the figures are 17% and 83%, respectively. This relationship is also reflected in the different expenditures on wages as a part of the value added generated on farms. As a consequence, the economic performance evaluated by the value added is highest for farms of category IV.

–The viability of farms is particularly influenced by their level of debt and the form those debts take, specifically Czech farms are burdened by the following three forms of debt:

- Old (pre-reform) loans, which concern almost exclusively those farms operating as legal entities;
- „Transformation“ debts, differing according to the manner in which the farms were established: transformation shares of coops, interest-free loans to restituted farms or instalments for the privatised non-land assets of privatised farms;
- New debts, especially commercial loans acquired through the SGFFF (these loans are used particularly by joint stock companies, and least by coops).

–The government aims to write off the old and „transformation“ debts. However, this effort has its legal and political pitfalls (e.g. oft-repeated discussions in the Parliament on amendments to the Transformation Act) and it is linked with the risk of a „moral hazard“.

In conclusion, rather than the size, legal status or focus of production it is the way in which farms were established during the reform period which has the major effect on a farm's viability. Each category, „restituents“, „transformants“ or „privatisants“ (‘restituted’, ‘transformed’ or ‘privatised’) faces specific challenges with regard to farm restructuring. Thus the adjustment can either be effected in a „top – down“ or a

¹⁰ According to an ACE survey in the SouthEast region, limited liability companies are owned on average by 7 partners, whilst joint stock companies are owned by 479 stockholders.

„bottom – up“ manner. Unfortunately, present surveys do not classify farms according to the way in which they were established (even though it is possible in some cases to trace a correlation between the method of establishment and the legal status of farms). With respect to the expected development of external conditions it seems likely that in the near future the biggest problems will be experienced by:

- Farms forced to adjust in a „top - down“ way: this particularly concerns co-operative farms with larger numbers of members/stock-holders/partners; the capital structure of individual farms, which can apply more a „bottom – up“ adjustment is getting better every year;
- Privatised farms forced to respond to the privatisation of state land, which they currently lease: this is of particular concern to privatised farms operating as limited liability companies and extremely large (even up to 12 000 ha) individual farms (the purchase of the state land will be allowed only to natural persons – citizens);
- All those farms which may not be permitted to write off their debts by a governmental or a parliamentary decision. This is a particular concern for co-ops (the outcome depends on a parliamentary decision).
- All those farms which would no longer benefit from their ‘economies of scale’ due to changes in the support they receive (after the accession, under the CAP conditions).

Based on the above hypotheses we can try to present an outlook for the future development of Czech farm structure:

- The polarisation of Czech agriculture (between the huge co-operative farms and small subsistence farmers) will probably intensify. Many co-operative farms may go out of business, but other farms or managers will take over their capital and land. The remaining co-operative farms are likely to experience some internal changes. Unemployed persons in rural areas will return to subsistence (self-supplying) farming.
- Considering the pre-accession agricultural policy and its focus on the European Model of Agriculture, obviously only a small part of the agricultural area will not be utilised (will be abandoned).
- As a consequence of their transformation commitments, some co-ops will be liquidated (there may also be the establishment of new limited liability companies or individual farms), some co-ops will survive (and will probably be split into smaller farms) and some will continue to transform into joint stock companies. However, joint stock farming can only be a transitional form in the change from co-operative to individual farming.

- Thus co-operative farms will be reduced to large-scale landlord/estate farms, with all the negative impacts on the rural social structure and on the environment that this entails.
- The outstanding differences in the farm structure between the Czech Republic and the EU will be preserved, even after the eventual reductions in co-operative farming.

4. Differences in the farm structure development in the transitional countries

The differences are derived from (in descending order of importance):

- The historical background and heritage, which cannot be overcome in ten years;
- The applied agricultural policies;
- The development of the institutional framework of the society;
- The development of the national economy.

A levelling of the farm structures in the previous communist countries was not fully successful¹¹. This fact is also reflected in the continuing differences in the farm structure of the CEE countries. Whilst in Poland and Slovenia small scale farming still prevails both in the number of farms and in the total farmed land (the average size of farms in Poland is 7 ha and in Slovenia 5 ha), in the Czech Republic and in the Slovak Republic large farms with hundreds and even thousands of hectares dominate. Agriculture in both of the latter mentioned countries, and especially in the Czech Republic, is characterised by a sharply polarised structure¹².

It is generally valid, that in those transitional countries, in which agriculture was largely collectivised during the communist regime, this polarisation is receding (a decrease of the average size of farms passed on from the previous collective and state farms, combined with the parallel growth in the size of individual farms). In the countries in which the private sector in agriculture was not abolished during the communist regime, structural changes have not been so evident or so robust.

¹¹ In the majority of the Central and East European (CEE) countries almost all agricultural land was occupied by collective and state enterprises in the pre-reform period. Poland and Slovenia were the only exceptions. Poland preserved the predominance of the private sector in agriculture even in the period of centrally controlled economy. In Slovenia, the „socialised” part of agriculture was insignificant and there was a large number of part-time family farms occupying 90% of the agricultural area. However, certain differences existed even among the countries with collective agriculture.

¹² For example, in the Czech Republic only 7.7% of registered farms had more than 500 ha in 1999. However, their share in the total land farmed, the registered farms represented almost 80%. On the other hand, 81% of all registered farms with less than 50 ha farmed only 6.7% of total land.

