



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

**Farm Transformation and Restructuring in Czech Agriculture – Ten
Years After**

Tomas Doucha, Emil Divila, Zdenek Travnicek

**Paper prepared for presentation at the 13th International Farm Management Congress,
Wageningen, The Netherlands, July 7-12, 2002**

Copyright 2002 by Tomas Doucha, Emil Divila, and Zdenek Travnicek. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

FARM TRANSFORMATION AND RESTRUCTURING IN CZECH AGRICULTURE -TEN YEARS AFTER

Tomas Doucha, Emil Divila, Zdenek Travnicek
Research Institute of Agricultural Economics
Prague
Czech Republic

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

The Czech Republic uses a cadastral system inherited from the 18. - 19. Centuries: the total area of the Czech Republic is completely divided into and within that framework it is again divided into ownership parcels with unambiguous identification. The whole system is centrally registered on databases, and some of the maps are digitised. 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 in favour of user's rights resulting in an interruption of ownership registration since the 1960's.

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, 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.

The quantitative indicators related to the Czech agricultural area are presented in Table 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.

Table 1: Agricultural land in the Czech Republic (1999)

Culture	000 ha	Quality	000 ha	Anthrop. influence	000 ha	Protection	000 ha	LFA	000 ha
Arable land	3.096	High	1.400	Mining	14	NP + Landscape	369	Hilly	533
Perm. Crops	236	Medium	2.482	Other	4.268	Water	719	Lower quality	1.685
Grassland	950	Low	400			Other	3.194	Env. restrictions	172
								Spec. restrictions	155
								Non-LFA	1.737
Agr. Land	4.282		4.282		4.282		4.282		4.282

Share of arable

2/3 of land

27 % protected

LFA = 59,4 %

land: 72,3 %

lower quality

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'.

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 recent historical events influencing the results of the restitution are as follows:

- 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 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.
- 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 and only natural Czech people are eligible to buy the land. 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.

The 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 state investment support, have 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 Table 2 and Table 3 respectively. 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 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 farms.
- 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 co-ops 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 hands. Nevertheless, the transformation of co-ops into joint stock companies improves the capital structure of the farms and their economic stability.
- 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. Contrary to the situation in some developed countries with an uninterrupted market economy, family corporations are currently very rare present Czech agriculture.
- 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, 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.

- 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.

Table 2: Farm structure development 1989 - 2000 - Czech Republic (% of agr. land)

	1989	1995	1996	1997	1998	1999	2000
Coops	65,6	47,0	43,2	38,7	34,5	32,2	29,1
Companies		28,0	31,9	35,4	40,6	43,3	43,3
Physical entities	0,3	23,3	23,8	25,1	23,7	23,5	26,4
State farms	34,1	1,7	1,1	0,8	1,2	1,0	1,2
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Note: without small households. Companies: joint stock + limited liability companies.

Table 3: Size structure of Czech farms (1999 - without small households)

	Cum. acreage (ha)	Cum. number of farms	Number of farms	Agr. Land (ha)
up to 10 ha	60.972	12.220	12.220	60.972
11 - 50 ha	240.712	20.350	8.130	179.740
51 - 100 ha	328.115	21.603	1.253	87.403
101 - 500 ha	710.420	23.228	1.625	382.305
501 - 1000 ha	1.267.142	23.976	748	556.722
1001 - 2000 ha	2.358.006	24.746	770	1.090.864
more than 2000 ha	3.503.179	25.142	396	1.145.173

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, 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, etc.

2. WHY HAS COMMERCIALLY-ORIENTATED 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. The most serious obstacles for the restructuring from the point of view of land transfers and other related factors are as follows:

- 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/stockholder/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;
- 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 groups;
- 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.

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, 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.). As these results are based on only one year of data it is difficult to identify any general or long-term trends. 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 with regard to specific issues of the transformation process, (if with a certain caution) e.g.:

- 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 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/partners. Among individual farms, those of about 200 ha seem to be the most viable from this point of view (see

- Table 4). In 1999, the best economic results 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.
- The government aims to write off the old and „transformation“ debts. However, this effort has its legal and political pitfalls and it is linked with the risk of a „moral hazard“.

Table 4: Selected indicators for the Czech individual farms (1999)

Indicator	Unit	Size category of farms (ha)				Total
		I 5 - 50	II 51 - 100	III 101 - 300	IV 301 and more	
Number of farms		201	160	141	53	555
Acreage	ha	6.103	11.611	23.299	34.517	75.530
Average size	ha	30	73	165	651	136
Number of permanent workers ¹⁾		403	467	531	622	2023
Share of permanent family workers	%	95,0	78,2	62,2	16,9	58,5
Number of ha per 1 permanent worker	ha	15,14	24,86	43,88	55,49	37,34
Incomes from operations ²⁾ per 1 permanent worker	CZK	16.113	19.393	41.289	2.886	19.415

1) Workers with full-time employment on a farm.

2) Difference: incomes - expenses.

Source: Economic survey of the RIAE, 1999.

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 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.
- 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 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.