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Family Farming in Hungary*

Introduction

Contrary to original plans and expectations family farming remained a permanent component of Hungarian agriculture after collectivization. Nevertheless, these farms differed from family farms of market economies. These farms were overwhelmingly small-sized, part-time businesses. However, at the end of the 1990s family farms produced more than one third of the Hungarian agricultural output.

In Hungary, the role of family farming within agriculture gained in importance after the transformation and privatization compared to the situation in the planned economy. Nowadays, about 90% of agricultural land is owned by private persons and half of the land is cultivated by individual (family) farmers. Family farms produce roughly half of the agricultural production. But in contrast to expectations the proportion of full-time farmers remained rather slow (Elek, 1991).

The aim of this paper is to present some results of a sampled survey on Hungarian farming households carried out by our Department in 1997. For purposes of this study we interviewed 1600 family farming households. According to the results of the survey the majority of them are part-time farmers. The questionnaire comprised several questions about agricultural and non-agricultural activities and we obtained some sociological data (e.g. gender, age, occupation, education, income etc.) on all adult members of interviewed households. So it can be considered as a *household* survey instead of a *farm* survey.

The survey was carried out in spring 1998 and referred to the economic data of 1997. The distribution of the sample slightly differs from that of the

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agricultural census' of 2000 (ÁMÖ 2000). The reason for this is not the chronological difference of the two samples but the fact, that the proportion of very small farm businesses captured by our survey was deliberately smaller. Nonetheless, it can be stated that the farm sample was taken properly, using the database of the Hungarian Centre of Statistics.

The study also relies on the relevant survey data published yearly by the Centre of Statistics. Data from the agricultural census of 2000 was also taken into consideration.

Distribution of Farms and Structure of Land

Evaluating the agricultural census data we can conclude, that 20% of the Hungarian population is more or less engaged in family farming. Certainly this proportion encompasses all kinds of activity in both full- and part-time employment. The extent of the family farm population is broader. As became clear by definition, to this group belong all persons living in family farm households, without considering whether employed or not. In this broader sense of family-farm membership 27% of the Hungarian population lives in family households.

In spite of a continuous decline in the number of individual farms (small businesses) for many years, there are still approximately 900 thousand small businesses in operation. According to the 2000 census these small units cultivate roughly 50% of the productive agricultural land. The distribution of land used by the different farm types is a remarkable issue. Since the co-operatives and agricultural companies (organizations), which are of considerable size cultivate the half of the productive land, one question arises, namely how the 50% of the agricultural land used by family farms distributed among the different types of family businesses. The census confirms that, Hungarian agriculture is characterized by not merely the duality of family and cooperative (i.e. cooperatives and enterprises) farming but by the differentiation and concentration of family farms. The proportion of land cultivated by family farms using less than 0.5 ha is just 3.9% of the agricultural area. By contrast, the proportion of number of family farms makes 61% out of the total. Among family farms, the proportion of land cultivating by units with more than 50 ha is 31% while their numerical proportion is only 1%.

Table 1 and 2 show that distribution of family farms is particularly disproportionate both in terms of revenue and land-use. We can conclude that approximately half of the surveyed households possess a business just of marginal economic significance, those farming income is under 100 thousand HUF and the average cultivated land is no more than 1 hectare. So, presumably 50% of family farms can be considered as subsistence farm, which significantly save money for the household's budget but do not mean any considerably marketed output.

Table 1

Distribution of sample farms by revenue

Revenue (1000 HUF)	0-100	101-500	501-1000	1001-1500	1501-3000	3001-	Total
Proportion	54%	28%	9%	3%	3%	3%	100%

Source: own calculation on the basis of PHARE ACE, BKE survey.

Table 2

Distribution of sample farms by size of cultivated land

Cultivated land (ha)	0	0.1	0.2-0.5	0.6-1	1.1-2	2.1-5	5.1-10	10.1-20	20.1-50	50.1-100	100.1-	Total
Proportion	12%	18%	23%	11%	13%	12%	5%	4%	2%	1%	0%	100%

Source: own calculation on the basis of PHARE ACE, BKE survey.

Only 10% of family businesses are able to keep abreast with the emerging market challenges, since just 10% of them cultivate at least 10 hectare of land and have 1 millions HUF declared revenue respectively. Nonetheless, nor a 10 hectare plot does generate sufficient income using the traditional arable cultures.

Socio-Economic Characteristics of Farming Households

One of the most important determinant for characteristic of the farming households is the profession of the farmer. Among the examined farms this determinant was illustrated with the main activity of the farmer. The most significant part of operators is retired (57%), 14% of them is employed in the agriculture, 10% in the industry and 7% in the service industry respectively. As occupation the public sector and food processing industry both were reported by only 4% of the farmers (shown by Figure 1).

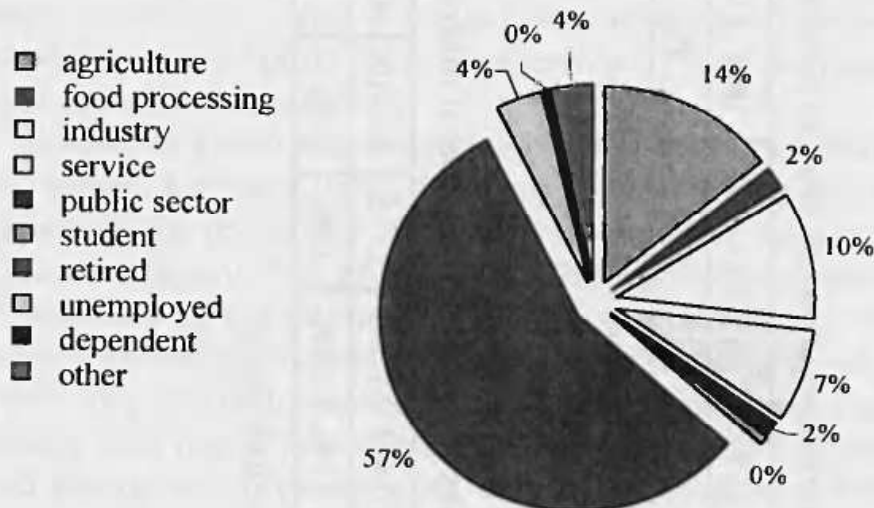


Figure 1

Distribution of farms by main occupation of the farmer

Source: own calculation on the basis of PHARE ACE, BKE survey.

Figure 2 confirms that there is a definitive correlation between the revenue or the plot-size and the status of agriculture as main occupation. The proportions within the different categories vary between 10% and 100%. Running counter to this, the proportion of retired operators shrinks parallel with the growth of cultivated land of the business, declining from an initial ratio of 60% to 30% at the upper size category.

When evaluating the operation and evolution of family farms (see Figure 3) it is to emphasise, that a number of family businesses embarked on farming in the mid 1980s, when we were far afield from privatization. Larger family farms (above 20 hectares) which have the ability to develop overwhelm-

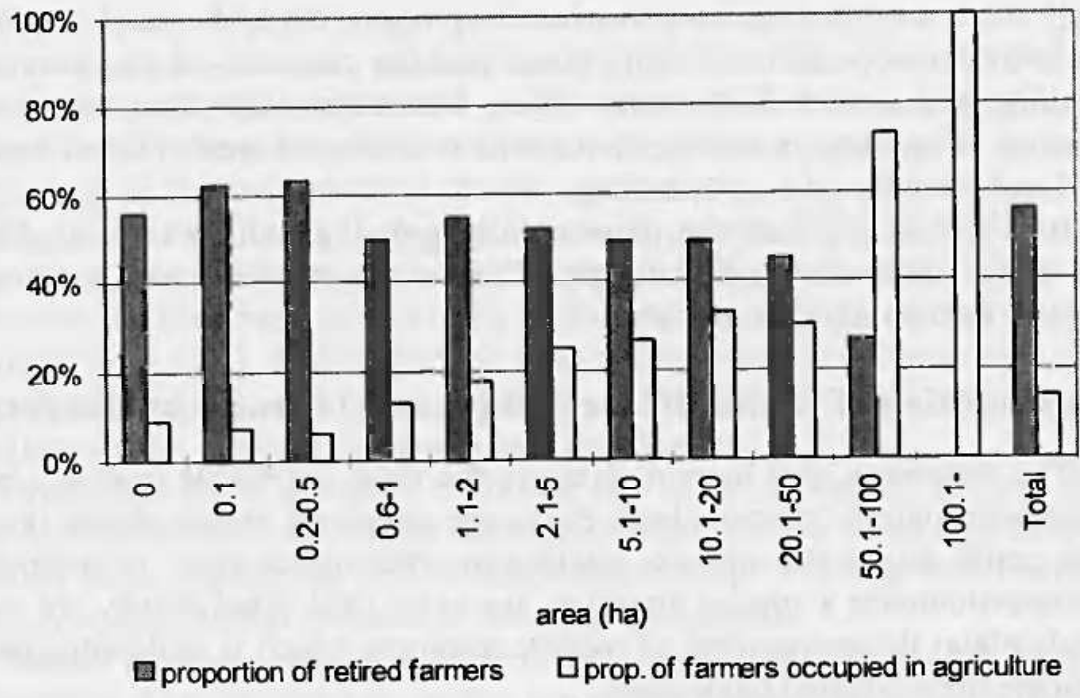


Figure 2
 Proportion of retired persons and agriculture occupied farmers by size of cultivated land

Source: own calculation on the basis of PHARE ACE, BKE survey.

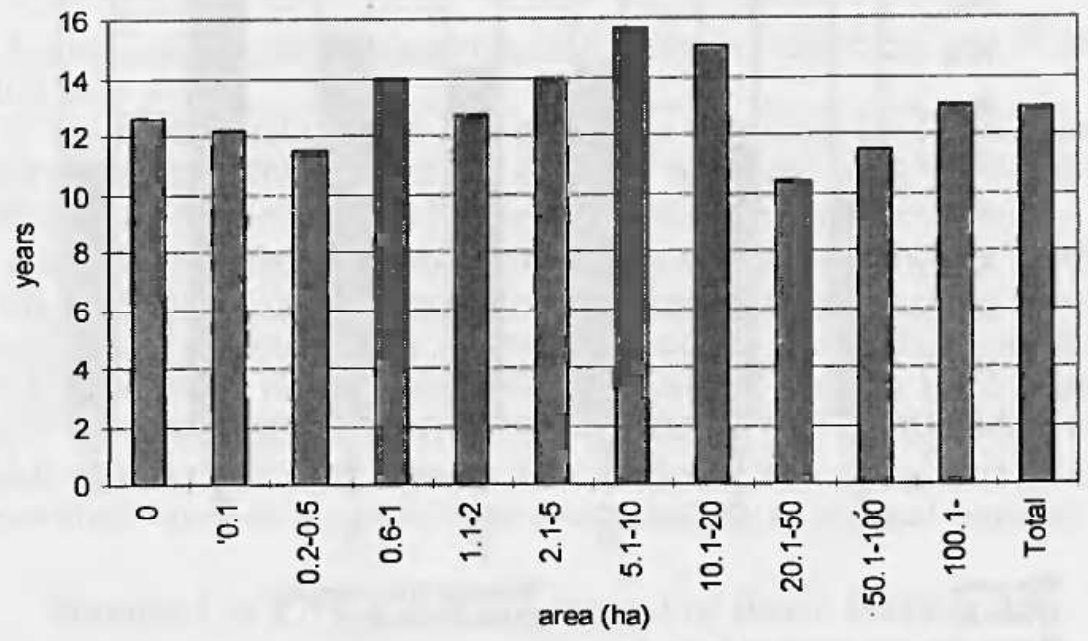


Figure 3
 Years in operation by cultivated area

Source: own calculation on the basis of PHARE ACE, BKE survey.

ingly were born during the privatization process. Still, the most important bases of development are family farms running since 12–14 years and cultivating an area of 5–20 hectares. These businesses show a continuous expansion. A notably part of the farms with a cultivated area of 0.6–1 hectare will undoubtedly give up operating.

It is interesting that the most rapidly growing units were founded in the early 1990s during privatization. These progressive farms comprising 20–100 hectare agricultural land.

Composition of Global Household (Family) Income by Resources

The statement, that income data are the most unreliable ones is almost a methodological commonplace. Since the questions put to obtain income data could distort the answers relating to other topics also, by composing the questionnaire a special attention has to be paid. That is why we asked solely about the proportions of income resource, which is quite adequate to indicate the evaluated tendencies.

INCOME STRUCTURE

The composition of income structure (in 1000 HUF) is shown by Figure 4.

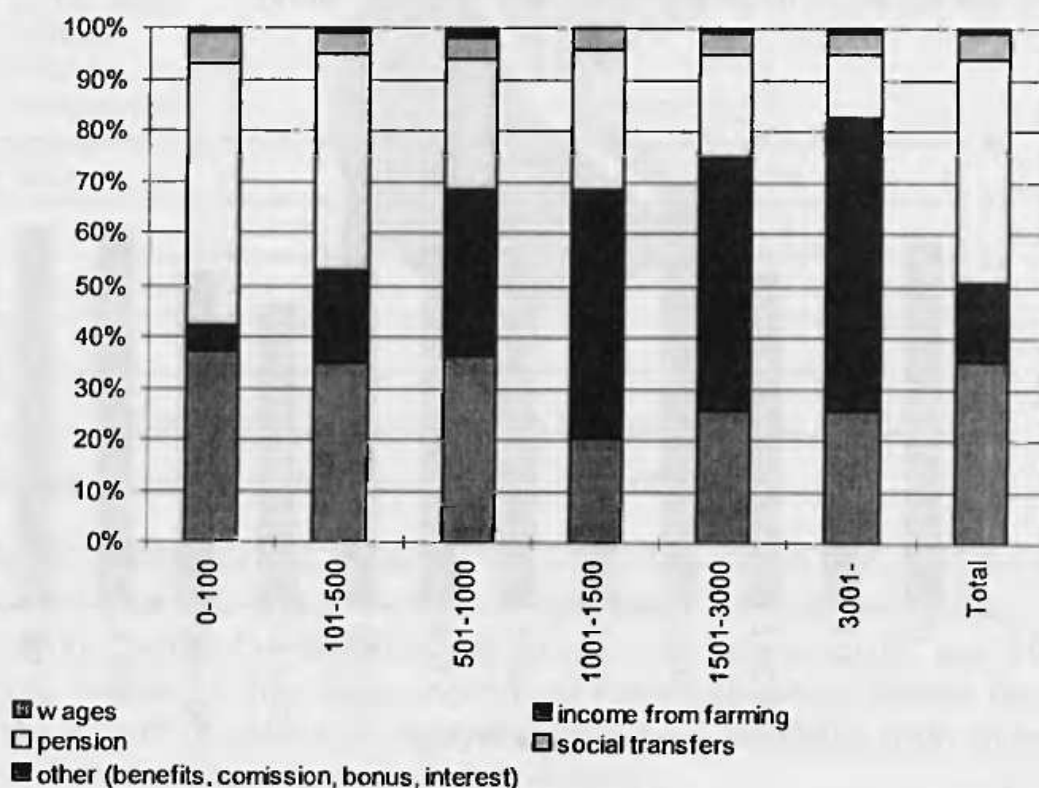


Figure 4

Income structure

Source: own calculation on the basis of PHARE ACE, BKE survey.

The income of the farming household was examined by sources as loans from occupation, pensions, income from family farming, social transfers and other non-labour income sources (rent, commission, bonus, interest). The proportions of the above-mentioned resources show a meaningful variation depending on the farm-revenue cluster.

The most significant is the simultaneous growth of household income with farm income (from an initial 5% up to 57%), and parallel with that a decline in the share of pensions within the household income appears (from 51% to 12%). The proportion of social transfers is independent of the household income, remaining generally at 5%, however this share in the smallest cluster is about one and a half time higher.

The high share of pensions within the two lower categories (50 and 40% resp.) indicate the subsistence manner of farming. In these two clusters farming has a significant role in supporting means of living notwithstanding is low agricultural revenue in the sense of amount.

Among income sources, loan is of the second importance after pension comprising 35% on average. In the two upper clusters its proportion outstrips that of pensions.

Relying upon the above findings it can be stated, that the amount of pensions does not depend on the volume of total family income running counter to that of the wages. So, the higher the scale of a household's farm the bigger the amount of wages coming from other sources than farming.

INCOME STRUCTURE BY SIZE OF CULTIVATED LAND

Figure 5 shows the composition of household income by size of cultivated land.

If we divide family farms into groups by cultivated land area a much more pronounced situation will be outlined. As to the loans, above 100 ha cultivated land just 5% of the family income is of that origin.

Proceeds from farming vary considerably among different size clusters. In the group of the smallest units (0–1 ha) farm revenue comprises no more than 5–8% of the total family (household) income. The gradually declining share of pensions reflects two main concerns: on the one hand smallest farms are dominantly possessed by inactive people, on the other hand global household income expands in accordance with the growth of land size which depresses the share of an even relatively unchanged pension.

Standard of Living and Equipment of Rural Households

HOUSING SITUATION

Table 3 and 4 show the main characteristic of housing situation of sample households.

Table 3

Housing situation of households by cultivated land size clusters

Cultivated land (ha)	0	0.1	0.2-0.5	0.6-1	1.1-2	2.1-5	5.1-10	10.1-20	20.1-50	50.1-100	100.1-	Total
House is family's property	96%	97%	98%	100%	98%	99%	96%	100%	97%	91%	100%	98%
Average number of rooms	1.96	2.12	2.24	2.32	2.26	2.28	2.52	2.64	2.85	2.64	3.00	2.25
Average usable living space (m ²)	78.98	80.38	84.63	88.41	89.55	91.29	100.45	97.55	105.63	101.63	105.33	86.99

Source: own calculation on the basis of PHARE ACE, BKE survey.

Table 4

Housing situation of households by revenue clusters

Farm income ('000 HUF)	0-100	101-500	501-1000	1001-1500	1501-3000	3001-	Total
House is family's property	97.4	98.4	97.8	97.8	100	95.12	97.8
Average number of rooms	2.14	2.21	2.61	2.57	2.63	2.83	2.25
Average usable living space (m ²)	83.22	86.99	95.95	98.17	101.57	105.63	86.99

Source: own calculation on the basis of PHARE ACE, BKE survey.

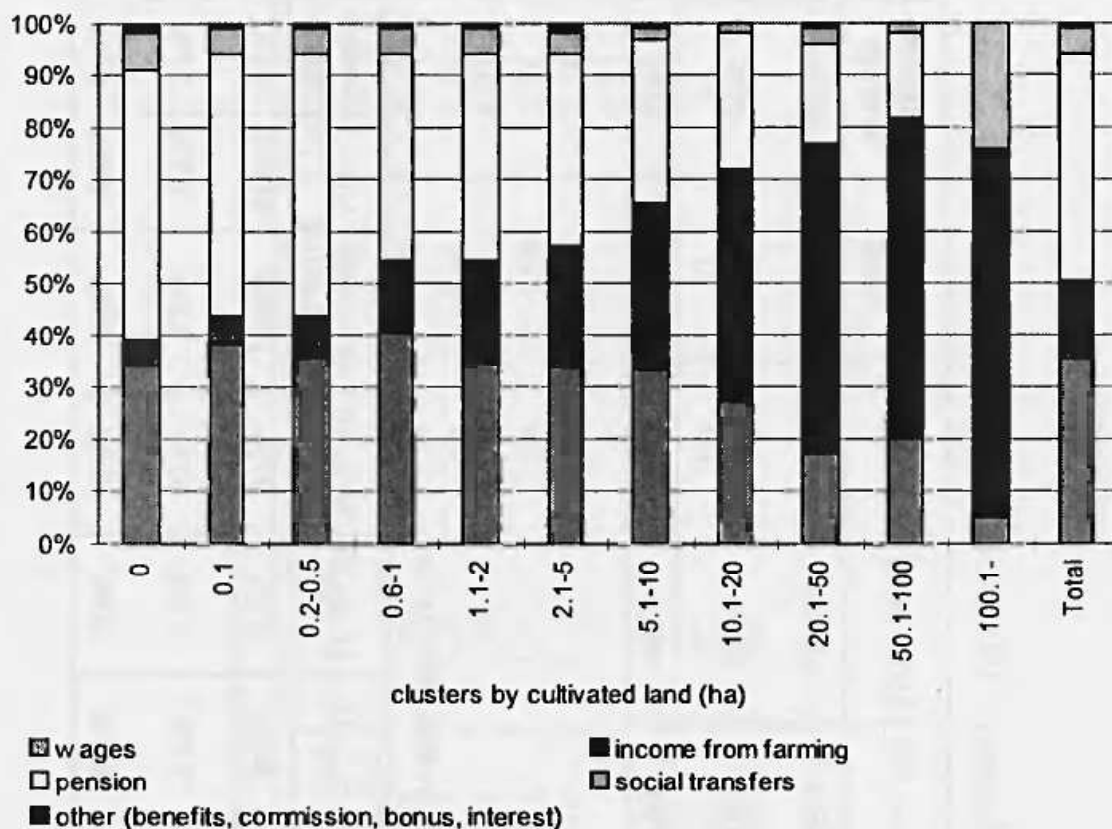


Figure 5

Income structure by size of household's cultivated land

Source: own calculation on the basis of PHARE ACE, BKE survey.

Concerning to the Hungarian data and that of the sample, we can state, that a decisive number of farming households possess a dwelling-house with an above average size.

There is a strong correlation between the farm income, the number of rooms and the size of usable living space respectively.

As regards the number of rooms the sample average is 2.25 room/household which is inferior to the national average, albeit this number is 2.8 in the highest income category. This tendency is also characteristic of the usable living space. Naturally, these findings are not surprising at all.

INFRASTRUCTURE

Table 5 and 6 compare the quality of life between average (and farm households and among revenue clusters respectively.

Table 5 and 6 report that the basic infrastructure situation of farming households is fairly good, both the fresh-water and gas-pipeline connections. We have to add, that state-promoted gas-supply programs of the past one and a half decade provided for a number of smaller settlements a good

Table 5

Infrastructure situation by revenue clusters (in 1000 HUF)

Farm income ('000 HUF)	0-100	101-500	501-1000	1001-1500	1501-3000	3001-	Sample total	Hungarian average
Drinkable pipeline-water (% of households)	89%	91%	98%	89%	96%	95%	91%	85%
Pipeline-gas (% of households)	53%	60%	67%	68%	67%	66%	57%	42%
Telephone (%)	59%	69%	82%	79%	86%	88%	66%	81%

Source: own calculation on the basis of PHARE ACE, BKE survey.

Table 6

Infrastructure situation by size of cultivated land (in ha)

Cultivated land (ha)	0	0.1	0.2-0.5	0.6-1	1.1-2	2.1-5	5.1-10	10.1-20	20.1-50	50.1-100	100.1-	Sample total
Drinkable pipeline-water (% of households)	86%	88%	90%	94%	94%	93%	88%	93%	97%	100%	100%	91%
Pipeline-gas (% of households)	51%	54%	57%	63%	59%	59%	58%	57%	61%	73%	67%	57%
Telephone (%)	51%	53%	54%	54%	59%	61%	65%	69%	73%	91%	100%	66%

Source: own calculation on the basis of PHARE ACE, BKE survey.

Table 7

Degree of supply with durable consumer goods by revenue clusters (in 1000 HUF)

Farm revenue ('000 HUF)	0-100	101-500	501-1000	1001-1500	1501-3000	3001-	Sample total	Hungarian average
Automobile / household	1.13	1.16	1.15	1.07	1.21	1.42	1.15	0.37*
Motorbike / household	1.29	1.32	1.20	1.34	1.22	1.11	1.28	0.10
Refrigerator / household	1.04	1.04	1.09	1.11	1.19	1.12	1.05	1.07
Freezer / household	1.08	1.08	1.08	1.12	1.30	1.24	1.09	0.22
Colour TV/ household	1.08	1.11	1.17	1.10	1.15	1.32	1.11	1.18
B&W TV / household	1.15	1.20	1.12	1.30	1.26	1.40	1.18	0.95
PC (% of households)	90	91	95	98	92	100	91	94
Washing machine (% of households)	5	5	12	11	22	12	6	13

* Only motorcars.

Source: own calculation on the basis of PHARE ACE, BKE survey.

Table 8

Degree of supply with durable consumer goods by size of cultivated land (in ha)

Cultivated land (ha)	0	0.1	0.2-0.5	0.6-1	1.1-2	2.1-5	5.1-10	10.1-20	20.1-50	50.1-100	100.1-	Sample total
Automobile / household	1.03	1.15	1.17	1.13	1.13	1.15	1.23	1.20	1.17	1.44	2.33	1.16
Motorbike / household	0.90	0.78	0.74	0.78	0.85	0.71	0.72	0.88	0.76	0.75	1	0.78
Refrigerator / household	1.04	1.04	1.04	1.04	1.06	1.04	1.16	1.08	1.15	1.18	1	1.05
Freezer / household	1.10	1.09	1.06	1.06	1.11	1.09	1.22	1.12	1.10	1.60	1.67	1.10
Colour TV / household	1.09	1.06	1.10	1.12	1.08	1.09	1.19	1.21	1.28	1.44	1	1.11
B&W TV / household	1.12	1.09	1.22	1.14	1.19	1.29	1.14	1.37	1.31	1	0	1.19
PC (% of households)	3%	5%	7%	6%	3%	6%	17%	5%	15%	18%	67%	6%
Washing machine (% of households)	83%	93%	92%	91%	93%	92%	92%	97%	100%	100%	100%	91%

Source: own calculation on the basis of PHARE ACE, BKE survey.

opportunity to connect to the distributing system. Anyway, only 50% of the households in the lowest cluster has a connection to the gas-network while this proportion is 70% in the highest farm income category. This fact could throw light on a territorial aspect of family farms distribution, namely the bigger farms are located in larger settlements and the smaller ones (under 100 thousand HUF) operate in the most backward regions, where the former development initiatives had no significant or sufficient effect.

The same holds for the degree of telephone-supply, only the level and dispersion of supply are higher among the individual categories. The supply ratio is 59% in the lowest group by income and 90% in the highest one.

The differences in building up of infrastructure are more marked if we examine the sample by size of cultivated land. 73% of households farming on more than 50 ha has gas-pipeline connection compared to the 66% of the highest revenue category above 3 millions HUF, as regards drinking-water the proportion is also higher (100% against 95%). Incidentally, these facts underpin that for definition of farm viability land use is most appropriate than declared revenue.

DEGREE OF SUPPLY WITH DURABLE CONSUMER GOODS

Similarly to the infrastructure this issue reflects also appropriately the income situation of farming households but it interprets more directly the differences in the standard of living. Among separate clusters supply of durable consumer goods increases, however in the upper clusters the well-known phenomenon of declining marginal utility is easily observable.

When inspecting the automobile owning of farming households we have to consider, that on accountancy consideration family farms use motorcars which are purely nominal trucks and vice versa. That is why the outstanding 1.15 average of the sample so significantly overdoes the 0.37 national one.

Personal computer is used by only a few of the sampled households (6%). Notwithstanding that a higher ratio (12–22%) occurs in the upper revenue clusters, the overall ratio remains very low.

Conclusions

The most emphasised opinion about the Hungarian agriculture is its fragmented structure. On the basis of data processed on the course of our study this statement should be at least shaped. The numeric proportion of small and very small businesses is really high, but beside that there is an ongoing rapid concentration process without any special encouragement. On account of that 50% of the agricultural land is used by larger enterprises and a third of the land used by family farms is cultivated by just the upper 1 percent of them. The main structural characteristics of Hungary's farming are polarisation and duality. The structure is lacking just the medium sized

units those proportion is lower than it is usual in market economies. In an international context this fact is much more significant (Lerman 2000, Mathijs and Swinnen 2000).

A further structural characteristic, that among the largest farms those operating just since 1990 are over-represented. The operators of them are typically younger, higher educated, and they mostly live in urban settlements or used to live there. Their farming motivations are supposed to be more entrepreneurial than native rural.

Family farms operating since earlier than 1990 are dominantly medium sized units, which developed organically on the basis of farming traditions and privately accumulated capital. Several hindering reasons can be considered why these entities did not developed in size.

These structural characteristics let us assume, that creation of the largest family farms is reasonably well in progress, without any special encouragement. The vitalisation both of medium sized and pre-medium sized farming units is hardly possible without a special governmental development policy.

We gained interesting data from the evaluation of reported households' income situation and equipment. It is worth to notice, that the share of farm income is under 50% in the total income, excepting family farms with a declared farming income above 1.5 million HUF. However loan from occupation is not negligible even by the largest farming units. Although the proportion of loans within the total is smaller, in numerical terms theirs' amount probably overdoes that of the households with small sized farms. Pension is upmost important income source of small businesses.

The infrastructure situation and the equipment with durable goods does not differ significantly from the national average unlike it was characteristic to the past decades. Especially contrasted is the surprising proportion of households provided with potable water-, gas- and telephone network. In regard of equipment with several durable goods the situation seems fairly advantageous. In some respects the ratio of supply surpasses the Hungarian average (e.g.: automobile, freezer) due to the rural manner of living and the lack of services. The poor supply with personal computer creates an insurmountable obstacle in accessing to information.

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