

# Differentiation and reasons of decline of agricultural enterprises in Slovakia

## *Diferenciácia a príčiny úpadkovosti poľnohospodárskych podnikov na Slovensku*

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**Abstract:** This contribution deals with the differentiation of agricultural enterprises, with focus on the declining enterprises as the most troublesome. In 2000, these businesses generated about 47% of the total loss in agriculture. In this respect, the methodological procedure was also used for the purpose of tipping out the highly unprofitable enterprises. The economic and financial analysis is focused on evaluation of the achieved results expressed in basic economic indicators. The analysis refers to the cause of agricultural enterprises decline. The different dynamics of restructuring process of agricultural production confirm the marked difference of results characteristic for declining enterprises with growing year-on-year loss, increasing costs, decrease of own capital, high indebtedness and dependence on the foreign sources.

**Key words:** revenues, expenses, added value, own capital, tangible investment assets, declining enterprises

**Abstrakt:** Príspevok sa zaoberá diferenciáciou poľnohospodárskych podnikov, kde rozhodujúci akcent je kladený na úpadkové podniky, ktoré sú najproblémovejšie a vytvorili 47% podiel z celkovej straty poľnohospodárstva v roku 2000. Ekonomicko-finančná analýza je zameraná na hodnotenie dosiahnutých výsledkov základných ekonomických ukazovateľov a poukazuje na príčiny úpadku poľnohospodárskych podnikov. Výrazná diferenciácia výsledkov, charakteristická pre úpadkové podniky s medzročne narastajúcou stratovosťou, zvyšujúcou sa nákladovosťou, poklesom vlastného imania, vysokou majetkovou záťažnosťou a závislosťou na cudzích zdrojoch, potvrdzuje rozdielnu dynamiku procesu reštrukturalizácie poľnohospodárskej výroby.

**Kľúčové slová:** výnosy, náklady, pridaná hodnota, vlastné imanie, hmotný investičný majetok, úpadkové podniky

## INTRODUCTION

Despite the continuing stabilisation of the agricultural enterprises, an increasingly important factor is that of differentiation, which is characteristic for the enterprises both from the organisation and territorial point of view. Different economic performance of agricultural enterprises is affected by many factors. Historically, these are the set conditions of privatisation (adjusting entries for the acquired property, old debts, etc.). In addition, the management plays a decisive role in the process. To know the differences between the agricultural enterprises reflecting prosperity and decline is also important in the interest of the effective use of state subsidies.

## AIMS AND METHODS

The economic and financial analysis of agricultural enterprises was conducted with the use of 1999 and 2000 data included in the Information Sheets of the Ministry of Agriculture of the Slovak Republic (MoA) stored on CDs in the Research Institute of Agriculture and Food Economics (VUEPP). The purpose of the analysis was to

reveal extremes in the achieved economic results of enterprises and to attempt disclosing the reasons of the substantial differences. To this end, we have evaluated a group of 1 205 enterprises (legal entities), with the breakdown structure by economic results into three groups: prosperous, declining and other enterprises (Table 1).

The criteria were set so as to account for the extremes, i.e. enterprises generating the highest loss, or profit; and were applied to the economic results of the enterprises. The year-on-year trends were evaluated for the compa-

Table 1. The criteria for classification of enterprise groups

Enterprise group	Economic performance	
	in SKK million	in SKK/ha
Prosperous	$\geq 1.5$	$\geq 1\ 500$
Others	$< 1.5; > -3$	$< 1\ 500; > -3\ 000$
Declining enterprises with land	$\leq -3$	$\leq -3\ 000$
Declining enterprises without land	$\leq -5$	–

rable enterprises. In addition, the methodological procedure included:

- analysis of absolute and difference indicators, including percentage analysis, comparative and index methods;
- analysis of relational indicators (profitability, activity, indebtedness and financial structure, liquidity).

For the analysis purposes, a wide variety of purpose-oriented algorithms were prepared to account for the economic results in individual groups of enterprises. The values of indicators were expressed in absolute figures in million SKK and were then converted per hectare of agricultural land, and/or per one enterprise.

For seven years now, as a part of enterprise differentiation, the VUEPP has been awarding the best agricultural enterprises (TOP-AGRO) on a regular basis. In order to do this, the VUEPP used a transparent method of weighted sum of ranking, or the method of simple ranking, with the evaluation indicators being modified on the annual basis. The emphasis is put on the indicators of profitability, activity, indebtedness and liquidity, as well as the year-on-year changes of the above mentioned.

## RESULTS AND DISCUSSION

Special attention was paid to the enterprises with extreme results (profit or loss) and the economic and financial analysis was mostly focused on the group of declining enterprises, the results of which were compared with the prosperous and other enterprises.

The differentiation and analysis of enterprises by groups has shown that of the total number of enterprises, 6.3% or 76 enterprises were identified as highly prosperous. However, in view of the subsidy policies and their impact on global results in agriculture, the decisive group consisted of high loss generating enterprises, i.e. businesses in decline, which represented 9.9% or 119 enterprises of the total (115 enterprises with land and four without land). The decline of these enterprises is not a result of one year of business conduct; the signs of decline were visible over the course of the past few years.

The declining enterprises were farming on the acreage of 10% of agricultural land (175 000 hectares). As regards the legal form of business, the major portion of declining enterprises was represented by agricultural co-operatives (78%).

The declining enterprises generated a major part of loss in agriculture. The volume of loss (SKK –1.1 billion) represented up to 46.6% of the statistical loss. The declining enterprises employed 12.3% of workers (9 726 persons) of the total number of workers in agriculture. Significant discrepancies were recorded in these enterprises, as regards the falling value-added labour productivity (decrease by 42.7%) and increasing average monthly wages (by 6.9%).

The regional spread of declining enterprises shows that natural conditions did not have a dominant impact on their economic results, because the enterprises were lo-

cated in regions with both adverse and favourable natural conditions. This leads to the conclusion that in addition to the external economic and natural factors, the results of economic performance in these enterprises are also affected by subjective factors, such as the activities of their management.

The enterprises were mainly characterised by significant year-on-year decrease in production, which represented 12% of the total agricultural production, with a higher share in the most productive regions. As regards the structure of production in the declining enterprises, the cost-demanding animal production was prevailing, which also contributed to the high loss produced.

The differences in the achieved production indicators in the groups of enterprises were also reflected in their economic results (Table 2). The most notable differences were shown in the economic performance. While the prosperous enterprises have generated an average profit in the amount of SKK 3 596 per hectare, with the loss of SKK 233 per hectare for the remainder; the declining enterprises generated a loss of up to SKK 6 108 per hectare. This means that economic performance in declining enterprises was almost three times lower than that of the prosperous businesses. The decline of these enterprises is described not only by their high loss, but also by the year-on-year growth of the loss, both in terms of the loss per hectare of agricultural land (103%), and the loss per enterprise (108%), where it achieved the amount of SKK 9 million.

The substantial differences in economic performance between the groups of enterprises were caused by worse operational economic results and substantial loss on financial operations, which, even with a moderate year-on-year decline, was twice as high as the loss of other enterprises. The declining enterprises were not involved in special activities, which could partially offset the loss on operational and financial operations.

With regard to the legal form of business, the most troublesome group of declining enterprises were business companies that generated higher loss, not only per hectare of agricultural land (increase by 56.9%), but also per enterprise (increase by 61%); compared to the loss in agricultural co-operatives.

Also, these enterprises generated the lowest added value (by 62% less than that of the prosperous enterprises) that fell by 47.6% year-on-year. This decline was caused by a faster decline in production, which was characteristic for this group of companies. Despite the relatively high revenues per hectare of agricultural land in the group of declining enterprises due to high costs, the sales of their own products and services decreased in comparison to the other group of enterprises, where the sales stagnated or have recorded a moderate growth. Compared to other enterprises, the worse coverage of costs by sales of own products of the declining enterprises was offset by sales of investment property, which accounted for the highest portion of revenues (7.3%) in comparison with the other group of enterprises.

Table 2. Financial and economic indicators of agricultural enterprises

Indicator	Measuring unit	Declining enterprises		Other enterprises		Profitable enterprises	
		1999	2000	1999	2000	1999	2000
Expenses revenue	SKK/100 SKK	108.42	116.32	101.21	100.8	95.25	92.58
Profitability of expenses	%	-7.78	-14.08	-1.24	-0.97	4.71	6.97
Profitability of total capital	%	-4.94	-11.10	-0.79	-0.69	3.28	5.40
Profitability of sales	%	-11.93	-25.31	-1.95	-1.65	6.48	10.58
Expenses per 1 SKK of sales	coef.	1.53	1.80	1.58	1.70	1.38	1.52
Subsidies share per revenues	%	8.60	10.33	12.58	14.87	7.77	10.70
Labor productivity from value added	thousand SKK	131	75	128	106	214	213
Average monthly salary per employee	SKK	8 601	9 196	8 509	9 182	9 873	10 700
Number of employees per 100 hectares of agricultural land	persons	6	6	5	4	6	5
Inventories share in production	%	47.00	41.67	44.64	42.62	38.60	37.39
Share of value added in production	%	29.43	16.19	31.65	23.18	36.70	31.98
Equity efficiency	%	74.72	74.69	74.38	79.06	105.38	106.60
Period of inventories turnover	days	157	135	155	150	134	126
Maturity period of short-term liabilities	days	146	142	107	113	87	77
Period of short-term claims collection	days	93	70	86	74	81	67
Coefficient of insolvency	coef.	1.74	2.16	1.38	1.69	1.23	1.12
Quick ratio	coef.	0.31	0.27	0.57	0.50	0.86	0.95
Current ratio	coef.	1.88	1.60	2.54	2.25	2.95	3.09
Total insolvency of property	%	39.31	39.89	33.14	33.64	31.24	29.51
Credit insolvency of property	%	9.02	9.50	7.00	6.57	7.51	6.78
Credit insolvency of equity	%	15.05	16.24	10.64	10.29	11.11	10.07
Rate of FA obsolescence	%	48.64	49.68	45.66	46.11	47.79	46.90
Annual renovation of property	%	8.26	9.27	10.76	15.18	16.97	21.87

A positive fact is that of the lowest growth rate of subsidies granted to declining enterprises. This indicates that the system of agricultural subsidies is becoming more efficient.

The characteristic feature of declining enterprises was the high and growing cost of revenues, due to the excessive operation and financial costs. In the category of operation costs, the increase was recorded in the costs of production consumption, especially when compared to the created added value. The volume of inputs per 1 SKK of added value (SKK 5.22 per hectare of agricultural land) was 2.4 times higher for declining enterprises than that of the prosperous enterprises (SKK 2.18) and 1.6 times higher than that for the other enterprises (SKK 3.37). Also, personal costs in these enterprises were the same as the costs in other enterprises. Considering their economic performance, this indicates that the remuneration in declining enterprises is inadequate. Also, the relationship between the amount of remuneration and economic performance seems questionable.

The level of financial indicators of the property, property structure and funding resources shows significant differences between groups of enterprises. The declining enterprises were in possession of larger property, due to the high volume of tangible assets (higher by 9.5% in

comparison with prosperous enterprises and by 37.7% in comparison with other enterprises). The structure of tangible assets shows a higher portion of buildings, to the detriment of the other tangible assets group (machinery, equipment, facilities and herds), which could produce a favourable impact on economic performance.

Given the current low level of production, the property of the declining enterprises was not used efficiently (only up to 75%, compared to 107% in prosperous businesses). This resulted in higher costs (through depreciation) and losses of declining enterprises that tried to reduce the loss by selling the property below the depreciated value.

The characteristic feature of declining enterprises was the low and declining amount of financial property year-on-year, and current assets being fixed to liabilities, which adversely affected their liquidity and ability to pay. The insufficient amount of available resources, with only 8.9% anticipated coverage of obligations (20.7% for other enterprises and 45.8% in prosperous enterprises) indicates a high level of insolvency of these enterprises and is a result of financial mismanagement, among other.

Another indicator of decline in this group of enterprises was a substantial year-on-year drop in equity (by 9.2%), compared to other enterprise groups, which recorded increase in equity.

As regards the capital structure of resources used in property coverage, the declining enterprises have shown almost an equal balance of their own and foreign resources. While other enterprise groups achieved a higher proportion of own resources, the declining enterprises showed a higher dependency on foreign resources, corresponding to their higher property indebtedness. These are enterprises owing to banks (credits), as well as to other business partners (obligations) with substantial obligations resulting also from the economic transformation process (agricultural co-operatives). With an insufficient generation of resources, which results in continual and deepening loss, the inability to pay was conserved, especially the primary inability to pay the obligations which applied to 76.7% of these enterprises. This then has been reflected in their increasing financial costs.

The bad income situation in declining enterprises also reflected in reduced investments. The investments fell for all categories of tangible property, except machinery and equipment, and resulted in high and increasing depreciation of the tangible property, amounting to almost 50%.

The negative development trends of declining enterprises were also reflected in financial indicators. The profitability indicators (increasing negative profitability of the total and own capital, worsening profitability of sales) suggest that the year-on-year income situation is worsening for these enterprises. Since these are enterprises characterised by high costs and losses, which, in the long run, result in slow generation of financial resources to cover the obligations, the spiralling decline of these enterprises is becoming still worse. The differences in the results of these enterprises caused economic problems, increased negative trends and substantially decreased their development prospective, when compared to other companies. The adverse economic and financial situation, which tends to become permanent in declining enterprises, was caused by their lack of capability to manage the internal and external risk factors.

There are reasons to believe that through the privatisation and transformation, these enterprises were acquired by new owners who were unable to provide for their development, performance and economic revitalisation, and contributed to their continuing decline instead. Many new owners or managers of declining enterprises lacked experience required for market entities, such as cost savings, investments and effective production. Instead, the owners and managers tried to benefit from their ownership rights rather than improving the corporate property. The behaviour of some owners of declining enterprises was also affected by the conditions under which they acquired the enterprises. A major role was played by the biased attitude of the National Property Fund, which often set up purchase prices and payment conditions below the official balance price. One of the benefits of the successors was the option to leave the obligations with the original entity that was to be liquidated.

It appears likely that the management in most declining enterprises maintain an employee, rather than ownership relationship to the enterprise (they have nothing to lose). This was also reflected in their lack of responsibility for the achieved results, where the management failed to anticipate and identify the worsening financial situation and to manage the cash flow. Many declining enterprises did not prepare revitalisation programs and often the analysis of positive and negative points is missing (SWOT analysis).

## CONCLUSION

A major process of differentiation now takes place in the Slovak agriculture. The declining enterprises represent a decisive group (10%). Of that number, almost 78% is represented by agricultural co-operatives. However, the highest loss generated per enterprise was produced by business companies, especially the companies without land ownership that were focused on animal production. These enterprises were farming both under worse and better natural conditions, at 10% of agricultural land, employed 12% of the total labour and generated 12% of the total volume of production.

These are enterprises with high loss, which generated a substantial annual income deficit – a loss in the amount of SKK 1.1 billion, which represents 47% of the statistic loss in Slovak agriculture. This represents a loss of SKK 9 million per one enterprise and SKK 3,108 per hectare of agricultural land. Characteristic features of the declining enterprises were high costs of revenues, a significant decline in production, low level of added value, poor labour productivity with disproportionate average monthly wages, low level of investments and higher sales of tangible assets. These enterprises have shown the highest portion of property ownership. With insufficient use of the property and high depreciation level, this contributed to high costs of the declining enterprises. The current property is fixed in claims and stocks. Combined with poor sales and low amount of financial property, this has contributed to high insolvency of the declining enterprises, worsening payment behaviour, resulting in slow payment of obligations, deepening credit exposure and dependency on foreign resources. The substantial year-on-year decrease in equity is a significant indicator of declining enterprises, showing their critical situation. This also relates to the ever-increasing year-on-year loss.

Further existence and focus of these enterprises is questionable. Since they are highly loss-generating enterprises, the owners and management should seek for strategic solutions, such as sale, mergers of enterprises or parts of them, or using parts of the property for other business activities. Given the fact that these enterprises conduct their business in areas with better natural conditions where other enterprises are prosperous, the reason of their poor performance is to be sought in the attitude of the management. Failure to find a solution of

the crisis situation in these enterprises will result in further decline and overall failure of the enterprise.

Based on the analysis, the reasons of decline in agricultural enterprises could be summarized into three areas. First, the situation was caused by the management, or the enterprise owners. This is reflected in inadequate management (insufficient level of practical management experience), lack of commitment and will to adjust to the new situation, bad decisions of financial management, personal responsibility), insufficient flexibility, as regards the product innovation, uneven distribution and failure to handle the business risk with regard to the size of the enterprise. Second, it is the internal economic structure of enterprises related to their excessive property and poor utilisation of it, high financial costs (cost interests) of gaining the foreign capital, bad capital structure (lower share of own capital), as well as that of other production factors (more expensive labour compared to other groups of enterprises), excessive drawing of financial resources for personal use. Third, the external economic environment (transition process, price, subsidy, tax and credit policy) of the enterprises also had an adverse effect. However, this factor affected all groups of enterprises, therefore it is not specific for the group of declining enterprises. Thus, the dominant impact is to be attributed to the former two factors.

Each agricultural enterprise is carrying an inherent entrepreneur risk and failure to manage such risks, especially in declining enterprises, may lead to the potential bankruptcy. Further existence of such enterprises is determined by the Bankruptcy Act, the task of which is to provide for the removal of such enterprises from the business environment and these should then become ineligible for potential subsidies. The key issue is the fact that neither the declining enterprises (debtors) nor their creditors are interested in launching the bankruptcy proceedings. In addition to the lengthy administrative proce-

dures, this attitude is also determined by the fact that the bankruptcy brings loss to all. The debtors, obviously, lose everything, and the creditors will gain only a relative part of their claims. These issues should be addressed by the amendment of the Bankruptcy Act, the purpose of which is to either launch the restructuring process for the declining enterprises, or to provide for their market withdrawal, and thus contribute to increasing the solvency of business environment.

## REFERENCES

- Chrastinová Z. (2001): Ekonomicko-finančná analýza prosperity poľnohospodárskych podnikov so zameraním na úpadkové podniky (Economic and financial analysis of the prosperity of agricultural enterprises, with focus on decline enterprises). Bratislava, VÚEPP.
- Řezbová H. (2001): Criteria of entrepreneurial subjects evaluation in agriculture (Kritéria hodnotenia podnikaateľských subjektov v zemědělství), CUA Prague.
- Rosochatecká E. at al. (2000): Evaluation of structure and quantification of factors influencing agricultural production intensity (Hodnocení struktury a kvantifikace faktorů ovlivňujících intenzitu zemědělské výroby). Research report NAZV, project QC01 10/2000.
- Simon F., Novák J. (2001): Vyhodnocení a srovnání ekonomické situace českých a francouzských zemědělských podniků (Evaluation and comparison of the economic situation of Czech and French agricultural enterprises). Praha, VÚZE, 155 p. Proceeding of VUZE international conference held on 11–12 October, Špindlerův Mlýn, Czech Republic
- Správa o poľnohospodárstve a potravinárstve v Slovenskej republike 2001 (Report on agriculture and food industry in the Slovak Republic). Bratislava, VÚEPP, 135 p.

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