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The restructuralisation and adaptation of entrepreneurial structures of food and agricultural complex to the European agrarian structures

Reštrukturalizácia a prispôsobovanie podnikateľských štruktúr poľnohospodársko-potravinárskeho komplexu európskym agrárnym štruktúram

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Abstract: The paper deals with the present entrepreneurial structures of food and agricultural complex. It documents on detailed information of food and agricultural sectors and services the dis-equilibrium and its solution. The main attention is devoted to the creation of entrepreneurial structures, and the adaptation of these to the European agrarian structures. It effects the development of entrepreneurial structure as well as the structural and process changes in the food and agricultural complex in the pre-access period to the European Union.

Key words: entrepreneurial structure, pre-access period, dis-equilibrium state, European agrarian structures, structural and process changes

Abstrakt: Príspevok analyzuje súčasnú podnikateľskú štruktúru poľnohospodársko-potravinárskeho komlpexu. Na detaile sektorov poľnohospodárstva, potravinárstva a služieb dokumentuje vzniknuté nerovnovážne stavy a ich rešenie. Osobitnú pozornosť venuje tvorbe prechodných podnikateľských štruktúr a ich prispôsobovaniu európskym agrárnym štruktúram. V neposlednom rade predikuje vývoj podnikateľskej štruktúry a očakávané štruktúrne a procesné zmeny v PPoK pri vstupe do Európskej únie.

Kľúčové slová: podnikateľská štruktúra, predvstupové obdobie, nerovnovážne stavy, európske agrárne štruktúry, štruktúrne a procesné zmeny

INTRODUCTION

The agricultural and food complex is a part of integration and globalisation tendencies whose representatives are the political and power structures of the Slovak Republic. Their effort aims at the integration of Slovakia into European structures, at the appropriation of the legislation in force, and at the adaptation to the conditions of an integrated Europe. This complex and demanding process of adaptation is vitally connected to each trade, sector or branch of industry. In the food and agricultural complex, it is related to enterprise and economy base at all levels of production vertical scale. A close interconnection of producers, processors and service providers evokes the question put to the protagonists of integration, how to secure a non-problematic entry of the food and agricultural sector into the integrated market structures. The adaptation of entrepreneurial structures of food and agricultural complex to the European agrarian structures serves as an illustration.

The objective of the present paper is thus the analysis of structural changes and adaptation processes in the food and agricultural complex, and the ascertaining of the preparedness of agrarian management as well as the prediction of future development, and the adaptation of the entrepreneurial structure of the Slovak food and agricultural complex to the European agrarian structures.

MATERIAL AND METHODS

The implementation of the suggested objective made it necessary to make a survey in 1,260 agricultural enterprises, 118 foodstuff enterprises and 106 service enterprises. The results of the survey were verified in the complex of 195 entrepreneurial subjects.

The purport of the survey was the position of the above mentioned enterprises in the changing economic and social milieu, the international agrarian business, a quantitative and qualitative reproduction of resources, the level of agrarian management, and the integration and globalisation trends in agriculture.

Used as the source material were: information papers of the Ministry of Agriculture of the Slovak Republic, VÚEPP database in Bratislava, questionnaire method, abstraction, analogy and deduction methods. This was

followed by the prediction of the development of food and agricultural complex at the entry of Slovakia into the European market structures.

RESULTS AND DISCUSSION

The results of an OECD study , as well as those of our survey, suggest that Slovak agriculture has made some progress on its way to market-oriented and private property based management. Restructuralisation and privatisation of Slovak agriculture and processing industries have also marked an important shift, which has contributed to the creation of the elements of a competitive milieu in market-oriented economy. Privatisation of enterprises providing the input into food and agricultural enterprises has been largely completed, even though competition in Slovak environment is progressing only slowly.

The restitution process concerning the confiscated agricultural technology had been nearly finished by late 1996, mainly via direct cash payments from the state budget. However, the process of settling other property problems was much slower. In spite of the estimated total value of the restitution property (2.2 to 2.5 bill SKK, excluding soil), so far only 20 % claims have been settled, only in material form or in cash. The rest of the restitution claims is supposed to be settled from the National Property Fund only.

Extensive transformation processes have determined structural changes in agricultural enterprises. The entrepreneurial structure here is therefore very varied and dynamic. This is documented by 94–98% of small and mid-sized enterprises, almost 68.5% co-operatives, and 29.0% of trade companies from the total number of food and agricultural complex. Relatively stabilised is the number of individual farmers (under 7,620), their share in the total acreage of agricultural land not exceeding 5%.

The structural and process changes have underlain the economic differentiation of entrepreneurial subjects according to size groups and organisational-legal forms of enterprise. The rate of inactive enterprises of the total number of the surveyed enterprises was 22.6%, of which the co-operative enterprises accounted for 91.2%. The next 7% enterprises marked economic failure by late 2000.

The position of enterprises in a turbulent milieu, environment and rural development

A relatively stabilised political and ethical-legal milieu, the repeated changes of microeconomics instruments, the inadequacy of legal standards and lacking protection of internal market makes the entrepreneurial milieu a very turbulent and volatile scene. An arising market milieu has already determined the efficiency of the agrarian and consumer market, the decreased purchasing power of the population and the cash flows bringing to a standstill have resulted in the decreased efficiency of food and agricultural enterprises. In spite of the revival of enterprise base, the efficiency of food and agricultural complex has only reached the production level of 1989. The economic losses of the agricultural industry dropped to 26 bill SKK in 2000, with 4, 4 value index growth. The total share of agriculture of Slovak GDP does not exceed 5%. The share of food and agricultural complex also dropped to 5.2% of the total number of economically active population, and according to this index, a further drop below 4.5% will have been expected by 2001 (Table 1)

The increase of efficiency is in accordance with declared aims of a new agricultural conception to make a better environment for producers and consumers, to stop the decrease of agricultural production as well as to create conditions for sustainable development. The risk of conceptions of agrarian and nutrition policy being very costly still prevails and it can also lead to a wrong distribution of resources as well as to an excess production and to an introduction of regulation mechanisms deforming the market.

The monetary support and a market regulation via the State Fond of Market Regulation (SFMR), direct payments to farmers undertaking in worse natural conditions, subsidies supporting direct inputs as well as the support of investments in agriculture seem to be the main tools for reaching aims of agrarian policy. Mechanisms and rules, providing support of agriculture in conceptual areas, had kept changing a lot till 1996. Also they had not been defined clearly and their transparency had been omitted as well. Referring to this, some types of subsidies will become temporary measures.

We assume the lowering of a state influence on a regulation of food market.

With regard to more advanced level of a general economic reform, considerable progress in the process of structural changes and a considerable rate of adaptation to developing market conditions will follow.

The state intervention on support of primary producers and regulation of agrarian market will precede the reaching of the above mentioned condition. This will end up in protectionist policy on one hand and in an increase of budget means and consumer price on the other hand. The continuous rise of supportive means, which reached

Table 1. Basic economic indices in agricultural production (in bn SKK)

Index	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Index 90/99	Prog. 2001
Costs	67.4	59.1	54.9	59.3	60.8	58.1	60.1	62.3	59.0	57.2	0.85	0.59
Yields	69.5	47.5	44.6	52.5	57.4	55.3	57.5	61.4	57.5	54.6	0.79	0.59
Economic results	2.1	−11.6	−10.3	−6.8	−3.4	−2.8	−2.6	−0.9	−1.5	−2.6	−1.24	−0.50

Table 2. The degree of tradability with food and agricultural commodities in 1994–1998

Commercial transaction	Year						Index 1999/94
	1994	1995	1996	1997	1998	1999	
Export of food and agricultural commodities	12,758	16,207	13,499	15,203	16,116	17,388	1.26
Import of food and agricultural commodities	19,947	23,300	26,664	28,743	31,353	32,596	1.57
Balance	–7,189	–7,094	–13,165	–13,540	–15,237	–15,208	2.12

Source: Ministry of Agriculture SR and personal calculations

the sum of 42,460 SK in 1996, nearly 50,000 SK in 1997 and 60,000 SK in 2000 per an agricultural worker supports this fact.

Although Slovakia has created different programs for support of non-production functions of food and agricultural rural enterprises, the highest financial support is directed to those areas of agriculture where worse natural conditions prevail. Alternative possibilities of employment in rural areas will be a suitable compensation for agriculture and will become a serious social problem in the regions.

Taking into consideration the already mentioned links as well as a mutual social and economic dependence, the problems in agriculture are not going to be solved in isolation from other economic sections of regions. Attempts to solve the specific problems of the country by increasing support of an agricultural production are becoming ineffective and costly and that is why the approach to rural development must be changed. The stress must be put not only on agriculture, but especially on development of crafts, services and business activities.

The re-structuralisation of food and agricultural production, reduction of channels of distribution, quantitative and qualitative reproduction of human resources form a characteristic feature of present changes. Eliminative cash and material flows, an insolvency as well as a high indebtedness of agricultural businesses appear to be accompanying attributes of the above mentioned structural and process changes. The lack of own sources and a price inaccessibility of outside financing sources have an unfavourable influence on transformation processes and business activities of food and agricultural units.

Restrictions of the European Commission, which influence the joining of candidate countries to the European Union, belong to the problems as well. According to Rolf Drayer, Slovak food producers face the following criteria:

- a political criterion involving the existence of a legal state and the guaranties of legal minorities
- an economic criterion involving the functional and competitive market economy
- a legal criterion – based on approximation of European laws and on development of institutional administration and judiciary.

Slovakia has reached a certain level of success in all mentioned criteria, but these must be improved and should achieve the level of the ones of the European Union. The results of a survey of success of the Slovak agricultural businesses indicate risks of Slovakia entering market structures. It is evident that the Slovak food and agricultural businesses dispose of concentrated fund, enforce mass production forms of a work arrangement and dynamic business structures. They are also managed by a qualified agrarian management. A lower price level of the Slovak workforce and foodstuffs as well as a good quality of food products belong to strong points of the Slovak enterprises. We should not forget about integration tendencies, which are visible in production vertical, in shortening of channels of distribution and in closer bound of agricultural businesses with the country. The weakness of the Slovak enterprises is caused by worse soil and climatic conditions, old machinery park, high indebtedness and loan charge of enterprises. The negative effect of these factors is enhanced by a slowed material and cash flow, lack of financial fund and fluctuation of agrarian management. We also should not forget about the low level of agrarian marketing, economic and legal awareness of inhabitants in rural areas as well as a low social acceptance of agricultural work (Table 2).

Readiness of agrarian management

The present structural and process changes in the agricultural and food processing complex are determined by agrarian management. It is proved by survey of business units, where company management is responsible for its success and failure. According to the above mentioned survey, three groups of top management have been formed in the course of economic reform:

Group 1 – management of the enterprises, that apply offensive strategy. The most frequent forms of their strategies were: the strategy of flexible transformation and adaptation to the market conditions, the strategy of development and the strategy of target programs. The fundamental reconstruction of production, organisational and personal structures of the firm was the common denominator of the strategies mentioned above. Through these strategies the firms adapt the base of production and technique to the market demands, diversify their pro-

Table 3. Share of business managers and community mayors supporting the access of Slovakia to the European Union

Number	Group of respondents	Standpoint				Total	
		Na	%	Nd	%	P	%
1.	Top management of agricultural enterprises	104	53.3	91	46.7	195	100.0
2.	Community mayors	84	62.2	51	37.8	135	100.0
1–2	Total	188	57.0	142	43.0	330	100.0

Source: Gozora V.: From research results of main project in the research task E-IV.2000
Notes: Na – number of agreeing standpoints
Nd – number of disagreeing standpoints

duction, and expand the range of food products. According to the target aims, they prepare effective programs and financial resources. This group is formed by nearly 30% of agri-business subjects.

Group 2 – top management, that applies defensive strategy. The most frequent forms of their strategies were: delaying strategy and the strategy of gradual steps. The overcautious attitude of the top management is reflected by the gradual modification of the firm structures, the stagnant economic regime, the passive supply of financial resources, and application of agri-marketing. This group is formed by more than 40% of agri-business subjects.

Group 3 – top management without any entrepreneurial strategy. Their principle is just to survive in the changed economic conditions. Their effort leads to the application of the restrictive measures with the minimal interference to the firm structures. This group is formed by nearly 30% of agri-business subjects.

The firm structure of agri-sector fundamentally changed after the year 1994. The main reason was the effort to join the European Union declared by the Government of Slovak Republic and the effort to strengthen the agri-food production as a whole. The strategic target and priorities were: the achievement of the threshold of the food safety, the production of ecological and healthy food, and the protection of environment.

The survey results show, that nearly 57% of management does apply the development strategies but more than 43% does not apply them. Therefore, the main task of concurrent management is to include the strategic planning to the planning function of the management in each of the agri-business subjects.

The application of the unified rules and principles in the economic and social sphere is the condition for the integration into the EU. This requirement is realised not only by the political and governmental subjects, but by the management of agri-business subjects and local authorities as well.

The research results approve that 53.2% of top-management supports the integration into the European structures and there is more than 61% of mayors, who understand the integration as the opportunity to strengthen the regions by the inflow of the funds, the development of tourism and agri-tourism (Table 3).

State dis-equilibrium – resources and consequences

The relatively stable environment and differentiated firm inter-climate determinate economic dis-equilibrium not only of individual agri-subjects but of agri-business as a whole. The long-lasting economic dis-equilibrium of agri-sector has caused the establishment of more than 23% of dormant firms and economic loss of agri-sector from the year 1992 worth 27.4 bn SKK. Systematic underestimation of the value of the enterprise and insufficient financial resources caused the reduction of main assets and physical and moral depreciation of machinery and technologies.

The constantly opening scissors of input and output prices determined the difference of nearly 43 bn SKK inevitable for the innovation of machine and technological holding. The cause of this price dis-equilibrium is the price liberalisation of inputs on one hand and guaranteed or limited prices of agri-food products on the other hand.

The price and economic dis-equilibrium caused the increase of the indebtedness of the entrepreneurial base, which reached more than 46% in agriculture and more than 60% in food-processing industry.

The distinctive reduction of human resources by more than 70% caused the extensive increase of the labour productivity. On the other side, it determined the substitution dis-equilibrium, i.e., the reduction of labour force not compensated by the input of materialised labour. The quality side of human resources is permanently falling behind, mainly in the field of economic and legal awareness. The 'employee attitude' to firms and fulfilling the tasks prevails, i.e. the quality reproduction of human resources falls behind the reproduction of quantity.

The differentiation of regional resources, employment, and social pressure on rural population determine the regional dis-equilibrium. The differences in the soil value and economic conditions, material and cash flows, entrepreneurial activities of rural population, as well as the differences in the prosperousness of firms and effectiveness of management can be considered the side-attributes of the above-mentioned dis-equilibrium.

The economic differentiation of the entrepreneurial subjects is the determinant of the increasing social dis-equilibrium of the rural population. The survey results prove the bellow-average incomes, above-average un-

employment, and low social status of employees in agriculture, in more than 52% of Slovak districts.

The existence of more than 150,000 ha of the soil harmed by emissions and chemicals proves the ecological dis-equilibrium, and thus closes the circuit of the problems which intensify the difficulties of the situation in agri-food complex. The disorganisation of the equilibrium in the agri-food complex is negatively reflected by the long-lasting loses, price disparity, insufficient funds, general indebtedness, and excessive loans.

The equilibrium of the agri-food complex can be reached only by competent management, interested in the results of entrepreneurial subjects, aware of rational demands of owners and shareholders. The other sectors, which by nearly 70% of the inputs influence the food production, should more efficiently contribute to this effort.

The majority of the top management is aware of the causes of the causes of the dis-equilibrium of the sector. Successful managers applying systematic target approach are involved in the strategic and innovation development of agri-food firms, environmental policy, production increase, achievement of higher economy, and better position on the domestic agri-market. As the result of this approach, the long-lasting and seasonal cooperation of the entrepreneurial subjects has started to develop, the investments to purchase of machines and technologies has been cumulated. The integration tendencies are visible in the sphere of services, where the vertical integration is realised by the capitalisation of the claims in the enterprises of the primary production, and the development of supporting programmes. The capitalisation of the claims and the increase of the concentration of the active capital will enhance the horizontal integration and the establishment of entrepreneurial structures in future.

Economic dis-equilibrium has determined the establishment of 30% of firms, which depended on the supporting financial system in the agriculture for a long time but nowadays they are more or less dormant. Consequently the competent authorities should decide about the way of solving the problems of this group of firms. The examples of the countries in the East of Germany and Poland show the solution of this problem from the point of view of employment and purchasing power of the rural population.

Regardless of the negative phenomena, it is necessary to emphasise the positive ones: the opportunities for success, the strengthening of capital, and the higher efficiency of the enterprises. The horizontal and vertical integration of the capital, the establishment of the alliances and corporations with the foreign interest seem to be such an opportunity. The resources of future development can be found in the increase of the labour quality and production of the healthy food. The first sign of the use of the opportunities can be considered the establishment of the inorganic corporations of entrepreneurial subjects and the formation of the commercial units, specialised on agri-marketing and agri-business.

Despite that, the whole chain of problems, risks and emergent situations can be expected during the integration of Slovakia into the European market structures. The food producers will face the problems of the restrictions of the European food market.

The demanding tasks in the field of the preparation of the human resources and firm management can be expected. To reach the quality of the European standard the economic and law awareness of the managers should be increased, together with their communicative and language skills, moreover the style of their management of employees should be changed and personal qualities improved.

Formation of temporary entrepreneurial structures in agri-food complex

The solution of the state dis-equilibrium in agri-food complex and the increase of the food product competitiveness require the formation of temporary entrepreneurial structures during the pre-integration period. Their aim will be to establish economic, organisational and technical, as well as personal conditions for gradual adaptation of the entrepreneurial structure of agri-food complex to European agrarian structures.

The formation of temporary entrepreneurial structures will be determined by the change of the elements and subsystems with possible forms of development:

- **The first form** can be characterised by the structural changes of organisational and legal forms of enterprises, partial adjustments of macroeconomic tools and supporting systems of agri-food complex.
- **The second form** will be based on the relatively stable organisational and legal ground of agri-food complex, on the exceptional development of the macroeconomic tools, and gradual depression of supporting systems.
- **The third form** will be based on the relatively stable organisational and legal tools of agri-management, on the depression of the financial supporting systems, and on the development of the supporting system of consulting in agri-food complex.

Taking into consideration the predicted forms of development of the entrepreneurial structure, we can foresee the following structural and processional changes:

- Concentration of agricultural production has a stabilising tendency in the initial phase and a slightly increasing tendency due to merging, acquisition or association. The organisational structures are adopting a horizontal feature (Table 5).
- Concentration of food-processing industry has an increasing tendency due to higher competitiveness and economic effectiveness. Enterprises with the best technologies and high quality products will create the portfolio of production.
- The number of service enterprises will significantly decrease, whereas their reproductive potential will increase. It is anticipated, that this group of entrepreneurial subjects will seek opportunities in vertical integration

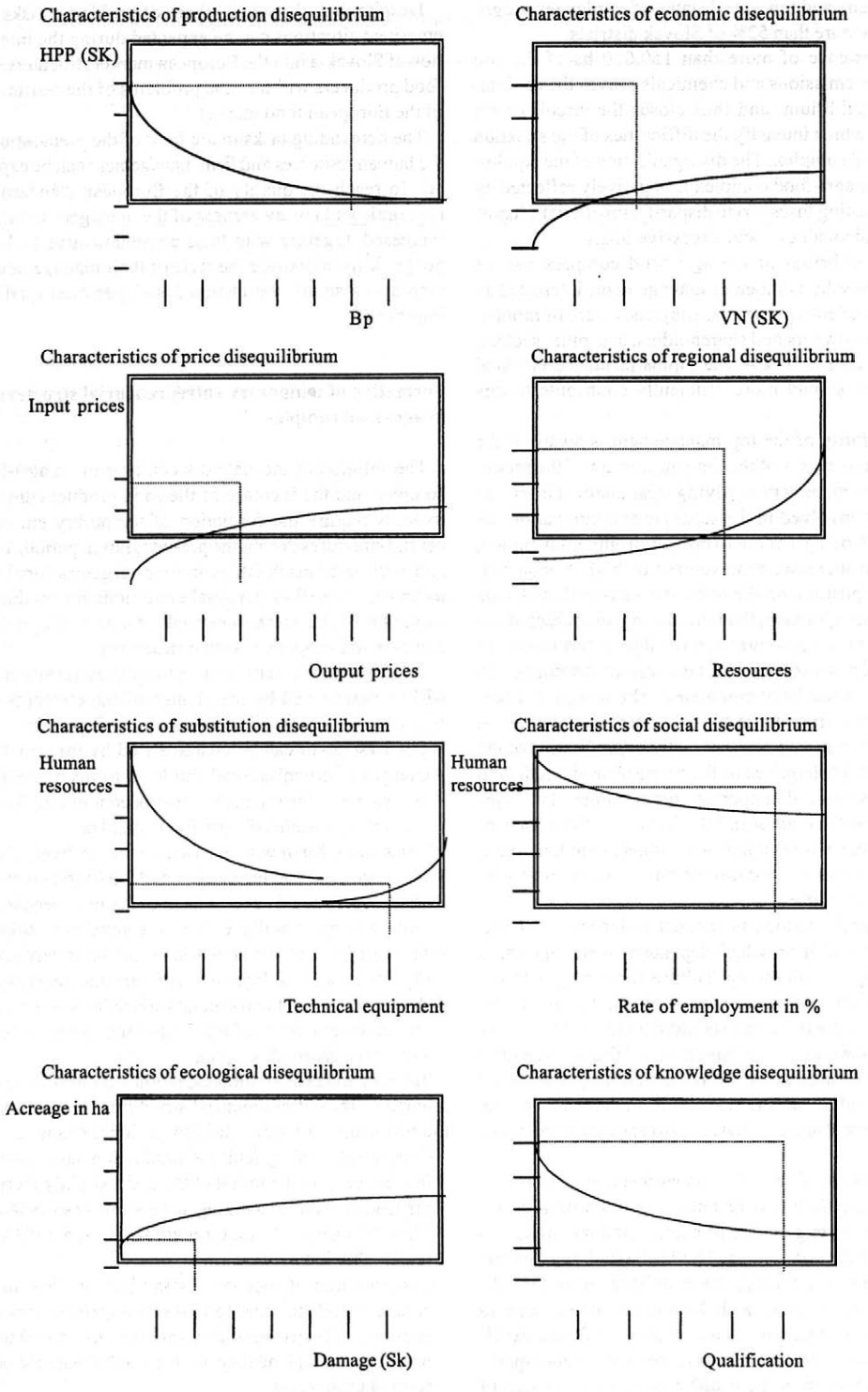

Figure 1. Characteristic of dis-equilibrium in agri-food complex

Legend: Bp – soil value in points, HPP – gross agricultural production in SK, V (% – utility)

Table 4. Entrepreneurial structure of the agricultural and food industry complex

Ministry of Agriculture of the SR		
Entrepreneurial subjects, budget and contributory organisations	**Economic tools** (price and non-price)	**Supporting systems**
One owner	tax policy	National Fund for Agricultural and Food Industry Assistance
Trading companies	loan policy	Market Regulation Fund
Co-operatives	guaranteed prices	Fund for Supporting Export of Products
Associations	licence policy	Financial assistance program for small and medium-size enterprises
	market regulations	Counselling support systems
		Subsystems *

Note: Entrepreneurial structure sources: Hutnik, Gozora
* include sectors of Agricultural and Food industry complex, environment of the enterprises, regional resources and agrarian management

through which combined entrepreneurial structures will be created.

Agri-management is also a part of the transformation process of entrepreneurial structure. The current system of agri-management will keep its levels (enterprise – regional branch – Ministry of Agriculture of the SR). On the other hand the interests of member subjects in the entrepreneurial sphere will be advanced.

In the pre-accession period, the enterprise managers will have to meet higher requirements with the aim to achieve better communication and language skills, to obtain marketing and legislation experiences and to develop managerial skills.

Transformation changes of the entrepreneurial structure include adopting the supporting system and the macroeconomic tools of agri-management under the new market conditions. The national subsidy and price policy will be subject to the society audit. Financial assistance programs will be oriented towards sustainable development of rural areas, at achieving ecological balance in the country and at supporting agri-food industry in less favoured areas.

Principal changes are expected in loan policy. Availability of loans must be subject to lower obtaining price of loans and trustworthiness of the entrepreneurial subjects. Through loan policy, the state must allocate financial resources to modernise machines, technology, to regulate the food market, to develop rural areas and agritourism.

Special function among the macroeconomic tools is performed by the financial and guarantee programs to help creating employment for rural population, to use natural resources economically in order to produce healthy food. Last but not least, to support creation of housing opportunities for young rural population.

Special feature of the transformation entrepreneurial structure is the system of qualified counselling services. The existing system of counselling is not functional and will be replaced by a new, effective counselling system within the framework of the SAPARD Program. Horizontal distribution of counselling centres will contribute to an effective transmission of know-how and the newest scientific and technical knowledge into the entrepreneurial practice. We are convinced, that a system-oriented counselling activity helps to overwhelm the initial barriers in the pre-accession period of the Slovak food producers in the European Union.

Table 5. Development of legal forms of agricultural enterprises by 2005

Index	Year 1998			Year 2005		
	Number of enterprises		Average acreage	Number of enterprises		Average acreage
Legal form	No.	%	ha	No.	%	ha
Agricultural co-operatives	851	89.11	1,567	780	83.69	1,850
State enterprises state farms included	9	0.94	5,397	22	2.36	5,600
Business companies	95	9.95	5,951	130	13.95	5,800
Total	955	10.00	2,039	932	100.00	2,490

Source: Own data and author's expert estimation

CONCLUSIONS AND RECOMMENDATIONS

After adopting the agri-business structure to the European agri-structure, the existing imbalance will disappear, the efficiency of agri-food industry will increase and a higher competitiveness of food products on the integrated food market will be achieved. In line with the main objectives of the agricultural and food policy, the preconditions for an effective and modernised agriculture and food industry will be created. Abundance of high quality, down market, ecologically safe and healthy food of domestic production will be available.

The transformation entrepreneurial structures will enable the effective use of disposable agricultural resources, especially the land for sustainability of the country, the cultural heritage and recreational purposes. Implementing the system measures, it is anticipated to achieve an adequate return rate of the capital invested into agriculture, better ecological conditions and environment, extended alternative economic activities and employment of rural population. Development of regions, adopting legislation and creating organisational preconditions in the pre-accession period of the Slovak Republic into the European Union is expected.

The paper analyses the current entrepreneurial structure of the agricultural and food complex. Analysis of the agricultural sector, food industry and services shows an imbalance and its solution. Special attention is paid to the creation of transformation entrepreneurial structures and their compliance with the European agrarian structures. The paper predicts the development of entrepreneurial structure and the expected structural and processional changes in the agricultural and food industry complex in the pre-accession period to the European Union.

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Influence of the international agrar trade on environmental policy

Vplyv medzinárodného agroobchodu na environmentálnu politiku

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Abstract: The relation between international trade and environmental policy is followed regarding export and import development of world trade, its commodity structure, territorial orientation and transportation trade distance. The growth of foreign trades dynamics shapes in retrospect the increase of production volume, distribution and raw material processing. Influence of production and export supported systems on the environmental loading are negative. Trade liberalisation affects positively the decline of production and that in turn impacts the decrease of environmental risks.

Key words: international trade, environmental policy, environmental loading, trade risks, dimensions of international trade

Abstrakt: Súvislosti medzinárodného obchodu a environmentálnej politiky sledujeme v intenciách gradácie exportu a importu svetového obchodu, jeho komoditnej štruktúry, teritoriálnej orientácie a dopravných vzdialeností obchodov. Rast dynamiky zahraničných obchodov spätne umocňuje zvyšovanie objemu produkcie, distribúcie a spracovania surovín. Na environmentálne zaťaženie negatívne vplývajú podporné systémy produkcie a exportu obchodu. Liberalizovaný obchod pôsobí pozitívne na útlm produkcie a tým i na znižovanie environmentálnych rizík.

Kľúčové slová: medzinárodný obchod, environmentálna politika, environmentálne zaťaženie, riziká obchodu, dimenzie medzinárodného obchodu

INTRODUCTION

In the economy of developed countries, there exists a strong contradiction between the production – economic performance and the environmental burden. Production, consumption and trade are in opposition to quality of environment. In the world economy, the economic growth is differentiated and so is the connected territorial balance of international trade, which, for example, amounts to nearly –2.5% on the world level, to –4.7% in developed countries and to –9.6% in Slovakia, the latter being more than 4 times the negative balance of the world trade. Export efficiency of Slovak economy, analysed through the export goods per 1 inhabitant, amounts to 200% of the world efficiency, but it is only 50% of the export efficiency of the developed countries. The position of Slovakia in the economy openness – analysed through the share of export goods in GDP – amounts to 270% of the world level. The share of Slovak raw materials export (2.3%) reaches the average of the developed countries, but in finalised food commodities (3.7%) it is bellow the average of the developed countries. In majority of the OECD countries, agricultural production and agrar trade have the main influence on the international trade and the international trade together with the transport of goods has an indirect impact on forming of the countryside and environment destabilisation. Kubíčková presents detailed analyses regarding economic evaluation of the environmental influence of agriculture. In the Slovakia, authors are interested only sporadically in the economic evaluation of agriculture and trade impact on the environment (Podolák 2000, Podolák, Serenčéš 2001). The publication activity regarding international trade, national economy and enterprise efficiency, foreign trade balance corresponding with the topic of this contribution is found in the following authors: (Kárasz 2000, Bielik 1999, Kuzma 2000, Zentková 2000, Chrzanová 2000) and others.

OBJECTIVES AND METHODS

With the identification of production and non-production agriculture, there arise discussions about the methodology of measuring the influence of agriculture, production, intermediate consumption and trade on environmental impacts, both positive and negative. In the developed world, the main criterion of the environment standard is human health. Nevertheless, in the global approach, there often dominates the choice of political instruments which does not always mean the effective allocation. Health injuries point of view should dominate every economic evaluation, but it is a question, whether consumers, firms and state are prepared and solvent enough to pay for diverting the risk of health damage. The quantification of environmental assets and costs of various human activities gains still higher attention and, with regard to the natural character of agriculture, it cre-

ates the most of both positive and negative influences. The neo-classical economic theory presupposes the orientation of human activities at the maximum welfare, and orientation of the firms behaviour at the maximum of profit. Generally, market often does not evaluate environmental problems and it pushes both individuals and subjects to non- objective decisions which are automatically in controversy to the environmental policy.

The basic priorities of management and decision-making about natural sources are:

– **Underestimation and failure of the market with environmental values, products and means**

It would be ideal if the costs and revenues of economic activity be reflected on market transactions. The main market revenues are present in the welfare economics theory. We should mention, however, that there are no objectively defined ownership, production and business laws for all the potential transaction. Consumers and producers present competitive behaviour only with regard to the maximisation of revenues. Free market is most often under-valued and fails at the allocation of environmental values (non-competitiveness, incomplex market and information asymmetry). The environment is, in general, public goods, so we have to consume it to the same extent, but the sum of interests to pay for these values exceeds the necessary costs.

– **Underestimation of the influence of government institutions**

When there does not exist the market with environmental commodities, this function should be stimulated by the government and its competent sector administration. The core of the non-appreciated influence of government institutions reflects public decisions and the individual (subject) responsible for decisions regarding environmental problems does not recompense for the full impacts. Governmental decisions are of a rather proclamative character, they do not stimulate sufficiently the managers of the environment. Government administration is in many cases isolated from the consequences of the decision. Environmental costs and revenues are mainly passed to the next generation and there originates the problem of solving the intergeneration impact of the environmental effect. Therefore, there originates a certain "discount procedure", which means that future revenues and impacts will be ascribed the less value, the further on in future they might occur. It is understandable, that the subjects prefer present revenues and impacts and wait for the future solutions. The economic theory distinguishes the following methods of economic evaluation of environmental costs and revenues:

Indirect methods of economic evaluation:

– Effect on Production Method (EOPM) – expressing the relation between environmental damage and the reason of this damage. It is applicable, where a clear relation between reason of environmental threat and the impact on environmental changes (impact on human health, vegetation, production price, etc.) exists
– Preventive Expenditures Method (PEM) and Replacement Cost Method (RCM) – used for estimation of the economic value of environmental changes
– Travel Cost Method (TCM) – uses travel costs connected with the visit of a given recreation area (Wood, Tricem 1958)
– Human Capital Method (HCM) – used for analyses of social and private education investments return

Direct methods of economic evaluation

– Contingent Valuation Method (CVM) – used for evaluation of environmental values (Davis 1963).
– Contingent Ranking Method (CRM) – applied on general consumers preferences regarding environmental values (Lareen, Rac 1987).

The selection of economic value methods should respect:

– their technical acceptability and reliability,
– their institutional utility for decision-making processes (differentiated approaches to the financial evaluation of environment),
– users utilisation (reality of the economic evaluation conclusions, their use for supporting political discussions).

RESULTS AND DISCUSSION

International trade, as a part of wider external economic relationships, is an indicator, into which there is reflected the level and the trends of the world economy. This indicator is a passive index of the national economy stability and simultaneously it presents an active prerequisite limiting the quantity and quality of the economic growth resources and therefore also resources of the environment. World trade has increased in value 60 times during the last 50 years. Its import and export represents billions USD, billions of transport kilometres and therefore also the permanent relation to environmental policy. The share of agricultural commodities in the world trade turnover is 13–15%. Export and import increases namely in the countries like USA, Germany and Japan. However, all countries of the world community are included in the concrete touch of the international trade with environmental policy. International trade, as a part of the GATT/WTO, applies numerous principles and among them, mainly the "multilaterality" leads to the conflicts with environmental policy. In selection of the natural and economic environment methods, it is necessary to consider their technological acceptability and institutional reliability for economic and political decisions. In the 80ies, there occurred a stronger application of the environment evaluation methods and methodology, when president R. Reagan (1981) signed the Executive Rules – as a project of the environmental revenues and impacts evaluation together with passing the legal act "CERCLA" – the act regarding environment responsibility and economic compensations. In the EU, environmental impacts of agricul-

ture have started being solved as early as in 1973, with endeavours to incorporate environmental problems into the CAP, with acceptance of the so-called environmental action programs. In agriculture, apart from other sectors, the driving powers are, besides the dominant factors such as market power and technological change, the governmental policies of production, trade and intensification support, in the new CAP also of extensification and thus also the new influences regarding devastation (or stability) and the environmental burden. Finally, I would like to stress, that in the frame of the OECD, there already exist policies, certain environmental indicators, of the environmental impacts and revenues, the outcome of which also serves to learning, whether the population is willing to pay for the quality of environment or behaviour in other markets and that in the frame of the OECD and FAO, information is supplied with regard to the environmental topics and agricultural activities (soil, irrigation, mechanisation, energy, economic efficiency) which should be utilised in a more complex way also for the Slovak agrarian and trade policy and for academic education.

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Systems of employees assessment in the enterprises of agricultural basic industry

Systémy hodnotenia pracovníkov v podnikoch poľnohospodárskej prvovýroby

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Abstract: Evaluating the employers in the enterprise is a very interesting and also highly complicated personal activity that significantly influences new employers selection, horizontal and vertical mobility of the employers and also evaluation of the existing employers. This contributes for the improvement of the work with human power to acquire better results and achieve a success to the enterprise.

Key words: employees assessment, assessment form, criteria, methods

Abstrakt: Hodnotenie pracovníkov v podniku je veľmi dôležitou a zároveň najzložitejšou personálnou činnosťou, ktorá významne ovplyvňuje výber nových pracovníkov, horizontálnu a vertikálnu mobilitu pracovníkov, ako aj hodnotenie už zamestnaných pracovníkov. Prispieva sa tým k zlepšeniu práce s ľudskými zdrojmi, k dosahovaniu lepších pracovných výsledkov a teda aj k úspechu podniku.

Kľúčové slova: hodnotenie pracovníkov, hodnotiaci formulár, kritériá, metódy

INTRODUCTION

The employees assessment as a personal activity is in the latest literature represented as a sub-function of labour performance management. However, the labour performance management is represented as planning of future performance rather than retrospective assessment of performance or an employee. We can agree with the opinion of Stýblo (1993) that the assessment is device of a continued increasing of people management efficiency as well as a valuable tool for development of employees qualification and planning of a carrier. Every enterprise is not only an economic system but also a social system, the components of which are people (employees). Success of an enterprise is conditioned primary by quality of employees and system of their management. The employees assessment belongs to the most important personal activities and it is strongly connected with other personal activities in an enterprise.

The assessment systems have been investigated besides others also by Koontz (1993), Vetráková (2000), Stýblo (1993), Koubek (1995), Sýkora (1994), Reháková (1999), Vavrová (1999), Provazník (1997), Višňovský (1997), Pražská (1997), Armstrong (1999) etc. The enterprises of agricultural basic production belong mostly to small enterprises where there is usually not created a personal department, so a personal agenda is provided usually by employees from the field of labour economics as an additional task.

After 1989, a negative external mobility has been typical for the enterprises of agricultural basic production. From the original number of 360 699 employees (in the year of 1989), in 2000 only 91 545 employees were working. Višňovský (1997) states that in the years 1991–1995, there happened extensive exchanges at management positions which at main function positions represented the range as follows: chairman (director) 69%, chief economist 80%, chief agronomist 52%, chief zoo-technician 30%, chief mechanic 60%. In the phase of transformational process, it was not paid a necessary attention to the people assessment.

AIM AND METHODS

The aim of this article in its analytical part is to mention a real state in the field of employees assessment in the enterprises of basic production and in its design part to introduce our proposal of a possible system and its usage in working with people in an enterprise.

For the needs of analysis of used assessment systems, we have chosen purposefully (while taking into account individual legal forms, sizes of enterprises and regions) 56 enterprises which belong to TOP 100 in Slovak Republic from a long-term point of view and besides this we have included also such enterprises into our research which belong to non-prosperous enterprises.

In our research, we have used a special questionnaire set up by ourselves and a controlled interview. Return of

the questionnaire has been represented by 23%. Thus we have carried out a detailed analysis of the assessment systems in 18 enterprises of basic production which cover together 54 301 ha of agricultural soil. In our effort to capture development dynamics of these enterprises after their transformation, we have used except classic methods also a fuzzy cluster analysis (the method of fuzzy c-averages). Input data were indicators of productivity, labour and cost ratio. We have carried out analysis of the employees assessment systems by means of the Excel program – the contingency charts.

ACHIEVED RESULTS

Regarding the limited scale of this article, we introduce result of the analysis as well as proposal of the employees assessment system in a concentrated form.

1. Analysis of the employees assessment system

Within the observed cluster of enterprises, the employees assessment is performed in 15 enterprises and vice-versa this activity is not performed in 3 enterprises.

Period of assessment

A regular employees assessment is in general considered to be a significant part of personal management. In enterprises, which carry out their employees assessment, the employees assessment is carried out from time point of view in the way like this:

– 13 enterprises assess regularly,

– 6 enterprises assess employees only if necessary,

– in the observed cluster, there are also 4 enterprises which assess simultaneously both regularly and if necessary.

Assessment criteria

In enterprises of the observed cluster, we have been interested in what criteria are used for directors, administrative stuff and workers (Table 1).

Methods of assessment

Within the observed cluster of enterprises, "assessment on the basis of critical cases" is the most often used assessment technique. This method consists of recording or just observing significantly good or significantly bad cases by the assessor at work and behaviour of an employee. Minus is that assessors do not observe employee's performance while using this method and they do not make regularly the necessary records, by which the results of the employee assessment can become biased, inaccurate and considerably distorted.

Person of the assessor

Theory and practise agree on that the most competent person for the employee assessment is his direct superior. Also in the observed enterprises, the most frequent person, who performs the employees assessment, is a direct superior (zoo-technician, agronomist, chairman of a co-operative society...).

Person of the assessed

While assessing employees, not only a personal attitude plays a significant role but also personality of the assessed. Meaning of the assessment is, besides other things, also that it help employees to improve their work.

In the questionnaire, we have been interested mainly in the attitude of employees towards the assessment and their comprehension of its meaning. In 9 enterprises, employees have a positive attitude towards the assessment, they can see a meaning in it and it is an asset for them. Employees in 5 enterprises have a neutral attitude towards the assessment, it means they cannot see a special sense for themselves and they take it as every other task which they have to fulfil. Only employees of one enterprise of the observed cluster have a negative attitude towards the assessment, they take it as useless and harmful, they participate in the assessment due to obligation

.

Assessment form

The assessment form serves as a background for discussion of the assessor with the assessed during an in-

Table 1. Used assessment criteria in enterprises as follows

Chairman employees	Administrative stuff	Workers
– educating	– professionality	– performance
– management abilities	– speed	– education
– organisational abilities	– accuracy	– attitude towards work
– professionality	– qualification	– working discipline
– practice	– processing ec. agenda	– professionality
– activity	– observance of tasks	– observance of tasks
– saving of costs	– professional development	
– achieved profit	– working discipline	
– strategic thinking	– conscientiousness	

terview and at the same time as a written document of their mutual agreement on determined future working tasks and a personal development of an employee.

With regret we have to summarise that from among the observed enterprises, only one enterprise uses an assessment form where they have even two types of forms, one for management and administrative stuff and another for workers.

Assessment interview

The assessment interview is an opportunity when a superior employee can discuss sincerely opinions and problems of the assessed. The assessment interview should always begin with the questions investigating opinion of the assessed on her own work performance. Only then the assessor should express his opinion. Such procedure is applied in 11 enterprises of the observed cluster where the assessment is performed in the presence of the assessed employee. Only in 4 enterprises the assessment is performed without the presence of the assessed, which is very incorrect because an employee does not have a possibility to express her opinion on results of the assessment by which it looses its objectivity and truthfulness.

2. Designing of the employees assessment system in the enterprises of agricultural basic production

In the next part, we will try to design a universal employees assessment system which could serve as instructions for introducing the employees assessment system in individual enterprises while taking into account their specific features.

Designing of the employees assessment criteria

While designing the employees assessment criteria, we take into account the fact that the assessment criteria can principally be: enterprise and individual.

The enterprise criteria represent aims which an enterprise wants to achieve. The individual criteria are related to the activity of individual employees. These two types of criteria should be in harmony as much as possible. Taking into account specific features of the enterprises of agricultural basic production, we suggest a uniform model of criteria which, however, respects specific features of these clusters of employees in an enterprise (top managers, managers of lower management levels, enterprise experts with administrative stuff and workers). As an example, we introduce criteria for top management employees.

Structure of the criteria for top management employees.

- Professional level,
- Management abilities,
- Complexity of management,
- Results of controlled object,
- Relationship to the enterprise,
- Creativity, initiative, adaptability,
- Communication and co-operation,
- Interest in self-development,
- Pre-dispositions for promotion, other utilisation in the enterprise.

Proposal of assessment methods

In the proposed system of the employees assessment in the enterprises of agricultural production, we suggest to use a combination of the methods as follows:

- Method of scales,
- Personal interview

1. Method of scales

For the proposed criteria, we suggest to use so called method of scales. The assessment scale has 4 grades with a global characteristics of employee's working behaviour as follows:

4. grade – excellent,
3. grade – very good,
2. grade – sufficient,
1. grade – insufficient,

We will consider the classification into a certain grade to be point assessment of an employee in a certain criterion. On the basis of employee's positioning in the individual grades of chosen criteria, the total employee's position will be determined (Table 2 and 3).

Table 2. Designing of a scale for top management employees, line managers, profession experts and administrative stuff

Grades	4	3	2	1
Scale interval	32–27	26–20	19–14	13–8

Table 3. Designing of a scale for workers

Grades	4	3	2	1
Range of the scale	28–23	22–17	16–11	10–7

2. Personal interview

By using of this method, the assessment is processed both by the assessor and the assessed. Assessed as well as new tasks and aims are mutually agreed and it is possible to evaluate them objectively. Assessed employees have a higher motivation for achieving of aims because they have participated in their designing.

Assessment form

The introduced design of assessment form is determined for top management employees, line managers in a lower hierarchical level, profession experts with administrative stuff and workers.

ASSESSMENT FORM FOR TOP MANAGEMENT EMPLOYEES

ASSESSED EMPLOYEE

Name and surname.....

Working position / function.....

Period of working.....

ASSESSOR

Name and surname.....

Working position / function.....

Period of working.....

FULFILLING WORKING TASKS FOR PREVIOUS PERIOD

Description of working task	Assessment
1.	4 – 3 – 2 – 1
2.	4 – 3 – 2 – 1
3.	4 – 3 – 2 – 1

ASSESSMENT OF CRITERIA

	Opinion of the assessed	Opinion of the assessor	Final assessment
1. Professional level	4 – 3 – 2 – 1	4 – 3 – 2 – 1	4 – 3 – 2 – 1
2. Managing abilities	4 – 3 – 2 – 1	4 – 3 – 2 – 1	4 – 3 – 2 – 1
3. Complexity of management	4 – 3 – 2 – 1	4 – 3 – 2 – 1	4 – 3 – 2 – 1
4. Results of controlled object	4 – 3 – 2 – 1	4 – 3 – 2 – 1	4 – 3 – 2 – 1
5. Relationship to the enterprise	4 – 3 – 2 – 1	4 – 3 – 2 – 1	4 – 3 – 2 – 1
6. Creativity, initiative, adaptability	4 – 3 – 2 – 1	4 – 3 – 2 – 1	4 – 3 – 2 – 1
7. Communication and co-operation	4 – 3 – 2 – 1	4 – 3 – 2 – 1	4 – 3 – 2 – 1
8. Interest in self-development	4 – 3 – 2 – 1	4 – 3 – 2 – 1	4 – 3 – 2 – 1
TOTAL NUMBER OF POINTS			

IMPROVMENT SUGGESTIONS AND WORKING TASKS FOR THE FUTURE

1. working task
2. working task
3. working task

OVERALL EMPLOYEE ASSESSMENT

Assessment grades	4	3	2	1
Interval of the scale	32 – 27	26 – 20	19 – 14	13 – 8

PRE-DISPOSITIONS FOR WORK PROMOTION

4	3	2	1

Date of the assessment .....

Signature: Of the assessed.....

Of the assessor.....

It consists of these 4 parts:

1. part – This part contains basic information on an assessed employee as well as on the assessor, date of assessment and assessed period
2. part – In this part it is talked about the employee assessment for previous period and in particular about fulfilling of working tasks for previous period and individual chosen criteria. In the conclusion of this part a total number of achieved points at final assessment will be counted together.
3. part – This part consists of determining suggestions and measures for improvement of work performance and personality development of an employee. At the same time this part is a very important background for future employee assessment.
4. part – In this part the assessor will comprehensively evaluate an employee. Not only number of the achieved points should be taken into account but also attitude of the assessed towards the assessor, i.e. how an employee has managed to admit his failures and deficiencies and what is his interest in improvement of his performance and behaviour. Also the assessed should express his opinion on results of the assessment.

Finally, both the assessor and the assessed will sign up the assessment form (Assessment form for top management employees).

Assessment interview

An important and vital part of the assessment is the assessment interview. Every assessor has to realise that to assess employees means especially to communicate with them.

We suggest that the assessment interview should have these stages:

1. stage – INTRODUCTION OF THE INTERVIEW
2. stage – OPINION OF THE ASSESSED
3. stage – OPINION OF THE ASSESSOR
4. stage – AIMS AND TASKS OF THE FUTURE PERIOD
5. stage – CONCLUSION OF THE ASSESSMENT

The assessment interview contributes not only to improvement of the assessed employee but it is positive and stimulating. While interviewing, the assessor has a possibility to realise adequacy of his abilities (especially abilities to communicate) and strong and weak features of his behaviour.

CONCLUSION

The main objective of our work was analysis of employees assessment systems in agricultural basic production enterprises and draft of assessment systems suitable for practice. For gaining this objective we have carried out research in 18 agricultural basic production enterprises in Slovakia and we have also used much information from secondary sources.

As very positive we can consider also the fact that the employees assessment is done in loss making enterprises too, by which the growing interest of our managers in development and effective making use of human resources in their enterprises is being confirmed. This finding is being confirmed also by the report of Global Competitiveness Agency that evaluates the level of competitiveness of a country on the basis of institutional surroundings and quality of human resources. According to this report in 1999, Slovakia took the 45th place from among 59 world countries while it showed the best rank just in the sphere of human resources. And it is one of the steps by which it approaches advanced countries and of course currently the joining to the EU.

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Foreign agrarian trade of the Slovak Republic before the accession into the European Union

Zahraničný agrárny obchod Slovenskej republiky pred vstupom do Európskej únie

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Abstract: The Slovak agriculture is overcoming the disequilibrium states in agrarian market in the restoration process with regard to market economy. Foreign trade liberalization is expressed more during the last years in agrarian market, too. Since 1994 the development of trade balance of agricultural sector has presented unsuitable situation for the Slovak Republic. Negative balance of foreign trade with agricultural and food commodities and the share of competitive commodities are in increase. Foreign trade balance of agrarian-sector reached minus 16 846 mill. SKK including minus 6 250 mill. SKK of competitive agricultural and food commodities.

Key words: trade balance, agricultural and food commodity

Abstrakt: Slovenské poľnohospodárstvo v procese transformácie na trhovú ekonomiku prekonáva nerovnovážne stavy na agrárnom trhu. Liberalizácia zahraničného obchodu sa v posledných rokoch stále viac prejavuje aj na agrárnom trhu. Od roku 1994 sa vývoj obchodnej bilancie agrosektoru nepriaznivo vyvíja pre Slovenskú republiku. Zvyšuje sa záporné saldo zahraničného obchodu s agropotravinárskymi komoditami a čo je podstatné, zvyšuje sa podiel nahraditeľných komodít. V roku 2000 saldo zahraničného obchodu agrosektora dosiahlo –16 846 mil. Sk a z toho –6 250 mil. Sk nahraditeľných agropotravinárskych komodít.

Kľúčové slová: obchodná bilancia, agropotravinárske komodity

INTRODUCTION

The Slovak agriculture and horticulture are overcoming some disequilibrium states which are influenced by lower successfulness of agrarian policies at the realization of market restoration of agrarian sector. It is manifested by unattractiveness of branches, weaknesses of competitiveness in the domestic and foreign market, low incomes at more than half entrepreneurial subjects with agricultural production.

The innovation and renovation of technical and technological systems, energy resources and decrease of qualified human resources on top management level, technical managers in middle management level as well as qualified workers have low pace during the following time period Gozora (1998), Šimo (2000), Vicen (2000), Bielik (1998).

Some problems of entrepreneurial subject restoration have countries such as the Czech Republic, Hungary, Poland and other countries. Authors Nagy (2000), Hron (1998), Kuczek, Žmija (1999), Gályász and coll. (2000) have decribed these problems.

Main goal of the contribution is to analyze the selected problems from the foreign agrarian trade in the Slovak Republic during the last years from the viewpoint of the development of trade balance with the most important trade partners and commodity share according to economic groups. The synthetic part includes the recommendations and topics for the alleviation of negative trade balance with agricultural goods.

MATERIAL AND METHODS

Foreign agrarian trade of the Slovak Republic was the subject of research. Development of foreign trade balance shows the unfavourable tendency of the increasing export with competitive agrarian commodities. Territorial orientation on the Czech Republic is a result of the historical roots between these countries.

We used for research the information from secondary information sources of the Ministry of Land Management of the Slovak Republic, Economic Research Institute of Agriculture and Food, Internet, information sources of the Statistical Office of the Slovak Republic and others.

Collaboration of information was realized by exact analysis, comparison and calculation of indices. Based on

study of expert literature, interview with top managers as well as received information, we will propose the topics and recommendations for the solution of unsuitable situation in the Slovak foreign agrarian trade.

RESULTS

Foreign agrarian trade notes the increasing of turnover in 1999 (47 666 mill. SKK and in 2000 (50 282 mill. SKK). Agricultural and food sector participated in the total turnover of foreign trade with 5,6 % in 1999 and 5,4 % in 2000.

Table 1 explains the development of foreign trade balance of agricultural sector of the Slovak Republic.

According to Table 1, the export of agricultural and food commodities reached the increase of 5 458 mill. SKK during 1994–2000s. It is the value of 142 index point. Import was in increase by 12 325 SKK (point index 162). Based on these results, we can write that the increase of agrarian import commodities was higher than export. The Slovak trade balance in agricultural and food sector was at the level minus 16 846 mill. SKK in comparison with 1994.

The Slovak trade balance development with competitive agricultural commodities according to years is in the Table 2.

Competitive commodities are products for production of which we have suitable conditions in our country, processing capacities and human resources. Trend analysis observes increasing trends of import of competitive agricultural commodities with regard to 1994–1999s. High increase of trade balance is minus 6 250 mill. SKK (point index 2 248). Especially unsuitable situation is in imported agricultural commodities. It was 12 225 mill. SKK in 1994 and 21 937 mill. SKK in 1999 (point index 179). Export increased by point index 131 (3 740 mill. SKK).

The information about the Slovak foreign trade with agricultural and food commodities according to countries is very interesting. Table 3 shows the Slovak foreign trade with agricultural commodities. The Czech Republic belongs among ten biggest buyers to which the Slovak

Table 1. Development of foreign trade balance for agricultural sector in SR (in years, in mill. SKK)

Years	Development	Export	Import	Index of balance 1994 = 100
1994	12 760	19 739	–6 979	100
1995	16 207	23 299	–7 092	102
1996	13 496	26 664	–13 168	188
1997	14 887	28 077	–13 190	189
1998	16 210	31 456	–15 246	218
1999	17 387	32 595	–15 207	217
2000	18 218	32 064	–16 846	241

Table 2. Development of balance of foreign trade of the Slovak Republic with competitive agricultural and food commodities according to years and mill. SKK

Years	Development	Export	Import	Index of balance 1994=100
1994	11 947	12 225	–278	100
1995	15 237	14 463	774	378
1996	12 298	18 407	–6 109	2 197
1997	12 996	17 689	–4 693	1 688
1998	14 460	19 970	–5 510	1 982
1999	15 687	21 937	–6 250	2 248

Table 3. Balance of foreign trade of the Slovak Republic with agricultural and food products according to countries and years in mill. SKK

Country	Development		Export		Import		Index of balance 1994=100
	1999	2000	1999	2000	1999	2000	
Czech Republic	7 355	7 608	11 447	11 648	–4 092	–4 040	98
Poland	1 816	2 079	1 380	1 778	436	301	69
Germany	1 379	1 492	3 040	3 394	–1 661	–1 902	114
Hungary	1 214	1 506	1 890	1 689	–676	–183	27
Ukraine	1 013	715	31	225	982	490	50
The Netherlands	988	633	2 314	2 688	–1 326	–1 700	128
Italy	537	488	1 476	1 663	–939	–1 175	125
Austria	444	0,4	1 423	9	–979	–8,6	–
Croatia	426	336	106	111	320	225	70
Belgium	240	241	414	479	–174	–238	136
In total	17 388	18 218	32 595	35 064	–15 207	–16 846	110

Table 4 Commodity structure of the Slovak agricultural foreign trade according to years, in thous. SKK

Economic group	Commodity	Development		Export		Import		Index of balance 1994 = 100
		1999	2000	1999	2000	1999	2000	
4	Milk and milk products	1 854	2 235	1 054	1 345	800	890	111
11	Mill products and malt	1 409	1 638	213	305	1 196	1 333	111
21	Various food preparations	964	1 623	2 823	2 720	−1 859	−1 097	59
15	Animal and plant fat	1 159	1 234	1 305	1 761	−146	−527	360
23	Scraps and waste, fodder	1 081	1 187	2 663	3 148	−1 582	−1 961	124
24	Tobacco and tobacco products	1 361	1 187	3 273	2 775	−1 912	−1 588	83

Republic exported agricultural and food commodities during 1999–2000s. Other important trade partners are Poland 1 816 mill. SKK, Germany 1 379 mill. SKK, Hungary 1 214 mill. SKK and Ukraine 1 013 mill. SKK. In the year 2000, the export was oriented into the Czech Republic 7 668 mill. SKK, Poland, Hungary and Germany. Table 3 shows the remarkable decrease of our export into Austria, Ukraine, the Netherlands and Croatia.

Import of agricultural and food commodities is the result of foreign trade relations mainly with Germany, Ukraine, the Netherlands as well as other countries. From the viewpoint of the Slovak Republic it is unsuitable situation which influenced the import of agricultural and food commodities in 1999–2000s. The import increased by 2 469 mill. SKK.

Commodity structure of agricultural and food foreign market is given in Table 4. Commodity groups HS 04-milk and milk products, HS 24- tobacco and its products in 1999 and HS 11- mill products, HS 21- different food products in 2000 belong to the decisive groups in the Slovak foreign trade with agricultural and food commodities at export. On the other hand the groups HS 23, HS 24 and HS 27 had the largest share in import in 2000. Balance of foreign trade was increased at HS 04, HS 11 and decreased at HS 21, HS 24. The increase of foreign balance was noted at HS 15, 23, 11 and 04.

DISCUSSION

This paper deals with the unsuitable situation in the Slovak agrarian trade during 1999 and 2000, export of competitive agricultural and food commodities is in increase. We can say that we have favourable assumptions for its production with our human sources, land and qualificed managers in business entities. Table 2 includes the negative balance of foreign trade with competitive commodities at the level minus 6 250 mill. SKK. This part could be given to the enterprises with primary agricultural production for creation of more than 39 thousand labour places with average wages 9 500 SKK monthly.

Important role will be given to the Slovak marketing agrarian organization in the support of the Slovak and foreign agrarian market. Other factors for increasing of export is the quality of agricultural and food commodities in connection with decreasing of production cost from the viewpoint of competitiveness in foreign market as well as the protection of domestic producers.

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Regional policy and Slovak preparation for cohesion policy

Regionálna politika a príprava Slovenska na politiku súdržnosti

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Abstract: The preparation of Slovakia for cohesion policy is still in its beginnings despite the fact that some progress has been achieved in legal, institutional and program areas. The problems connected with the cohesion policy implementation are mostly directed at creating the program documents (quality and co-operation of the ones involved in documents creation), establishment of monitoring and evaluation systems and changing demands and conditions stated by the EU and the country itself.

Key words: regional policy, EU cohesion policy, programme documents institutionalisation, cohesion policy problems

Abstrakt: Príprava Slovenska na politiku súdržnosti je stále na začiatku aj napriek tomu, že sa dosiahol určitý pokrok v legislatívnej, inštitucionálnej a programovacej oblasti. Problémy súvisiace s implementáciou politiky súdržnosti sú prevažne v usmerňovaní a tvorbe programových dokumentov (ich kvalita a spolupráca viacerých subjektov pri príprave dokumentov), v spôsobe monitorovania a hodnotenia využívania prostriedkov na realizáciu programov a meniacich sa podmienkach pre uplatňovanie regionálnej politiky v rámci EU a na Slovensku

Kľúčové slová: regionálna politika, politika súdržnosti EÚ, programové dokumenty, inštitucionalizácia, problémy politiky súdržnosti

There are two reasons in present-day Slovakia why regional development problems and regional policy concept under Slovakian conditions have to be considered.

The first of these reasons is the growth and transformation of the high unemployment rate accompanied by deep contrasts in the social and economic development of individual regions.

The second reason is the main ambition of Slovakia to become a member of the European Union, where the questions of regional development and policy are highly recognised. It results from the volume of financial sources, which are redistributed every year from the structural funds of the EU. Regional development has also been encouraged by the EU sources which are distributed among the candidate countries within the so-called pre-accession support

Creation and implementation of effective regional policy is therefore one of the major concerns of the European Union, which often exerts pressure over candidate countries.

The following authors have devoted their attention to the questions of preparedness of Slovakia for regional and cohesion policies: Rajčák (1998), Dubecová (2000), Fitz (2000). The problems connected with the regional policy implementation and the policy of cohesion are also treated in the works of Pauhofová, Bušík (2000), and Fáziková (2000).

The aim of this paper is to provide the evaluation of the present stage of Slovakia's readiness in regional and cohesion policies, and to present the problems connected with their implementation.

MATERIAL AND METHODS

The paper is based on the approved programme documents and the Slovak Republic Government resolutions dealing with the introducing of the EU funds to the Slovak Republic. Also considered have been the safeguarding of the pre-accession funds and the use of the existing information relating to the SR preparedness for structural funds, as well as for program documents and institutionalisation.

PREPARATION OF SLOVAKIA FOR THE COHESION POLICY

The aim of the regional policy in most of the European countries is the support of the current development of problem regions connected with the efforts to reduce the interregional differences in the social and economic developments.

The regional development has been strained with the process of restructuring national economy to such a degree that regions are not able to manage the necessary structural changes from their own sources.

In the economic development of Slovakian regions, disparity presents a very relevant problem. By applying

Table 1. The choosen indicators of economic development of Slovak regions

Indicators	SR	BA	TT	TN	NR	ZA	BB	PO	KS
Gross per capita production (Thous. SK)	347,5	697.2	342.5	314.1	275.9	293.3	335.0	231.0	341.9
Total regional GDP (RGDP) (Bil. SK)	815.3	192.4	84.8	83.2	91.3	84.8	91.3	78.3	109.2
Per capita RGDP (Thous. SK)	151.1	311.7	153.9	136.4	127.5	122.5	137.7	100.0	142.9
RGDP to GDP EU (%)	49.0	100.0	50.0	44.0	41.0	40.0	44.0	32.0	46.0
Per capita Investments (Thous. SK)	50.2	242.6	25.2	25.7	19.8	35.3	25.8	19.9	26.6
Unemployed (Total)	535,211	25,122	49,935	44,137	78,078	64,637	79,567	100,084	97,351
Unemployment rate (%)	19.2	7.2	16.3	13.5	21.5	17.7	23.1	26	26
Average salary (SK)	10,961	14,611	10,556	10,134	9,968	9,874	10,019	9,618	11,157
Number of inhabitants (Thous. SK)	5,398	616.9	551.3	609.2	715.8	692.6	662.9	784.4	765.2

Regions: Bratislava (BA), Trnava (TT), Trenčín (TN), Nitra (NR), Žilina (ZA), Banská Bystrica (BB), Prešov (PO), Košice (KS)

the effective regional policy in the pre-accession period, it is necessary to focus more intensively on supporting the more stagnant and economically less developed regions (selected indicators, 1999 – Table 1).

Although all the post-1992 Slovak governments have devoted their attention to the problem regions of Slovakia, it was only an effort to solve some partial problems relating to their development. So far, Slovakia has not managed to lay down a regional policy as a functioning system resulting from standards and principles of the European Regional Planning Charter in such a way as it has been accepted in the EU countries.

Therefore, one of the priorities of the Slovak regional policy is its gradual linking to the policy of economic and social cohesion of the EU, because it is closely connected with the preparation of Slovakia to gain the EU funds support.

Slovakia has already achieved a certain progress in the field of legislative institutionalisation, as well as in the field of gradual implementation of programme documents for regional and cohesion policies. The most important ones are the following:

- In 1999, a proposal of the integration plan of regional and social development was submitted to the European Commission. It is an important programme document for acquiring the investment from the PHARE fund to achieve social and economic cohesion for 2000–2001 period;
- The National Plan of the Regional Development of the Slovak Republic, the part of which are also 7 sector operation programs, is the principal document of the Slovak Republic in the field of economic and social cohesion for acquiring the financial means from the European Union for 2000–2006 period. Sector operation plans have also been drafted;
- The Plan of Rural and Agricultural Development of the Slovak Republic is a program document for acquiring the financial support from the SAPARD pre-accession instrument of the European Union;

Table 2. Principal differences between the Slovak regional and the EU cohesion policies

Fields	SK Regional policy	EU Cohesion policy
Concept	Predominating 1-year cycle	Mid-term accession (3–7 years)
Programming	Until 1998 without the approved documents	Linkage to program documents from the beginning
Complexity	Narrow understanding of regional policy – small linkage to other policies	Integrated interdisciplinary accession
Instruments	Limited number	Wide spectrum of supporting instruments
Selection of projects	Problems with transparency	Clear separation of managerial, decision-taking, monitoring and competitive functions
Size of projects	Rather small projects	Predominantly large projects
Support efficiency evaluation	Sporadically performed, ad hoc	Systematic monitoring and evaluation

– The Co-ordination regulation for preparation and implementation of ISPA program was approved by the SR Government resolution No. 739 in 2000.

Further decrees of the Slovak Republic Government were approved relating to the regional and structural policies.

Procedure of institutionalisation is an inseparable part of regional policy and cohesion policy preparation. Progress has been also achieved in this area.

Funds and plenipotentiaries were established, in particular – National Fund and plenipotentiaries for the PHARE issues. The plenipotentiaries responsible for the management of finance were nominated for the SAPARD and ISPA funds. Implementation and monitoring agencies for the PHARE, ISPA funds, as well as the Agency for SAPARD have been instituted.

In spite of above mentioned, the progress achieved in process of preparation, scheduling and implementation of regional and cohesion policies has to be considered only at the beginning and / or creation of a basic framework for the implementation of national regional policy and the EU cohesion policy that has to be completed into a more complex functional system.

ISSUES RELATED TO COHESION POLICY

The policy of economic and social cohesion, which annually claims 34% of the EU budget, is a complex non-claiming system regulated by guidelines of the EU Council, as well as by common rules resulting from traditions and existing practical experiences.

– There is no legal claim for the means from structural funds. Each member state has to meet demanding criteria and requirements of the EU given by the guidelines. However, a part of the requirements is not specified. It means a free space for certain sensitivity to specialities of individual regions, as well as space for flexibility during negotiations on the aid form. Therefore, such experts should participate in the negotiations of individual sectors, which have perfect knowledge of the branch and regional issues, are familiar with the guidelines and procedures of the EU in implementation of regional and cohesion policies.
– The problem of the Slovak Republic in the area of program documents is based on the fact that occasionally "two kinds" of program documents are prepared. One kind is designed for Slovak regional policy and the second one for the EU cohesion policy. Therefore, an amount of the program documents is significant and it is difficult to provide their interconnection.

Incessant drafting and/or modification of different program documents, often elaborated under time stress and under external pressure, characterises the degree of co-ordination and interconnection of branch policies with regional policy. In addition, strategic documents are often created not on the base of the requirements of a given region, but as the requisite for gaining means from different sources. This is also the reason for their slow implementation in practice or no implementation at all.

In this context it should be noted, as it results from the experience of the EU member states, that national regional policy is as rule a complement to the EU cohesion policy.

– Our problem also consists of a weak monitoring of the process and evaluation implementing efficiency of the programs that have been put to practice and prior supported by the funds;
– A necessary part of the preparation for cohesion policy is a creation of necessary institutional structures. The elements of such structures are specified by the guideline of the EU Council (No 1260/1999). The guidelines specify a basic frame of the institutional structures only, i.e. a managing office, funding agency and monitoring committee. The guidelines neither specify a body which is responsible for the selection of projects nor mention program's secretariats. Therefore, each state can add the basic framework by itself.
– Preparation for the implementation of cohesion policy is complicated by other realities, of which the following facts are considered as most important:
– Requirements on co-operation and professionalism of different actors participating in the process of scheduling and implementation of regional policy, both on the central, regional and local levels, as well as at different sector levels (state, self-governing, non-governmental, private sector).
– Necessity of systematic preparation of the programs in several areas simultaneously, but also in areas and policies that are related to, or interlocked with, the policy of economical and social cohesion.
– Varying requirements of the EU obstruct the process of preparation for cohesion policy. The last significant change was a reform of cohesion policy which came into force in January 2000, while the EU has not yet sufficient experience with this policy.
– The reality that the pre-accession program PHARE, SAPARD and partially ISPA are not guided by the same rules as programs and projects funded by structural funds and the Cohesion fund, affects the fact that not all experience from the pre-accession period can be used after the accession into the EU.

CONCLUSION

The process of the national regional policy with the EU policy of economical and social cohesion should be continual. Achieving this goal lays great demands on time, but also requires professional knowledge, as well as co-operation between all participating subjects. It means a co-operation between central and regional authorities of general and specialised state administration and between the self-governing authorities at a level of higher territorial entities and a local level, co-operation with entrepreneurs and non-governmental organisation

The creation of a proper system of mutual communication between the above mentioned components is a prerequisite the reality and general acceptability of regional and cohesion policies.

It is necessary to proceed from a constrained understanding of regional policy and its pure connection to sector policies to its creation based on integrated approach. The aim of this policy is providing a gradual transition from the application of small development programs to the domination of large development projects whose effectiveness will not be evaluated sporadically, but systematically by the means of established quality system of monitoring and evaluation. In addition, it is necessary to create a perfect system of funding agencies for pre-accession programs and to achieve their accreditation, as well as to provide higher qualitative level of submitted projects claiming for aid within particular regional policy and the EU cohesion policy.

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Agricultural sector and government expenditures in Slovakia

Poľnohospodársky sektor a verejné výdavky na Slovensku

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Abstract: Development theorists, policy makers and farmers have often identified lack of access to formal credit as a great impediment to production. As a way of assisting farmers, governments in many countries have established institutions to provide financial resources to the agricultural sector and Slovakia is no exception. In Slovakia there are three main state funds which facilitate financial sources to the agricultural sector. The main objective of this paper was to provide an assessment of the role of the sector in the national economy and its contribution to gross domestic product (GDP) in relation to government's capital expenditure to different sectors.

Key words: gross domestic product, agriculture, government expenditure, subsidy, credits

Abstrakt: Teoretici, tvorcovia hospodárskej politiky a farmári často identifikujú nedostatočný prístup k formálnym úverom ako prekážku v procese poľnohospodárskej výroby. V mnohých, krajinách na podporu farmárov a poskytovanie potrebných finančných zdrojov pre rezort poľnohospodárstva, existujú štátom vytvorené inštitúcie. V tomto smere ani Slovensko nie je výnimkou. Na Slovensku existujú tri hlavné štátne fondy, ktoré uľahčujú farmárom prístup k finančným zdrojom. V tomto príspevku sme analyzovali postavenie poľnohospodárstva v národnom hospodárstve Slovenska. Našim cieľom bol objektívne skúmať či poľnohospodárstvo dostáva dostatočný finančný zdroj na jeho ďalší rozvoj v rámci jeho podielu na tvorbe hrubého domáceho produktu.

Kľúčové slová: hrubý domáci produkt, poľnohospodárstvo, štátne výdavky, úver

INTRODUCTION

The Slovak Republic started its first year as an independent country with some of the most favorable initial conditions of any transition economy. Slovakia inherited a tradition of macroeconomic prudence, low inflation and a small debt. But the magnitude of the adjustment required in Slovakia is large because of its legacy of heavy industries, relatively weak banks and unstable transfer payment. Before 1989, agriculture was one of the sectors, which were greatly subsidized by the government. It had a great access to getting cheap capital. But after the 1991 price liberalization process put this sector in very critical economic and social problems including insolvency almost for all agricultural units. Part of the financial crisis in the agricultural sector is the issue of bad loans associated with input price liberalization without liberalization of output prices. Nevertheless, there is clearly a need to reduce the dependency of agriculture on budgetary transfers in the long run.

METHODOLOGY AND DATA SOURCES

In this paper, we used primarily secondary data from different institutions including the National Bank of Slovakia, Slovak Statistics Office, the Green Reports of the Slovak Ministry of Agriculture, research centers for agriculture and from published and research reports. In this paper we would like to discuss the position and the role of agricultural sector in the national economy. Our attention is focused on the contribution of agriculture to gross domestic product in relation to government's capital expenditures. These information are used for testing the hypothesis " agricultural sector received lower (higher) investment or capital expenditure from the government relative to its contribution to the national output growth". For this purpose we used the following relations.

$$\theta = \frac{\lambda \times GDP}{\beta \times GDP_{agri}}.$$

Where:

θ – Government investment bias, which measures the proportional alocation of government capital expenditure to sector in relation to sector's contribution to total gross domestic product,

λ – Government expenditure on agricultural sector,

β – Total government capital expenditure,

GDP_{agr} – Agricultural gross domestic product,

GDP – Gross domestic product.

The GIB (government investment bias) value of indicates that the sector receives comparable investment re-

sources to the value of its contribution to national output growth. GIB values less than 1 suggest that the sector receives less investment resources than it contributed in total and vice versa. But in both cases it does not indicate the opportunity cost of resources utilization

THE IMPORTANCE OF AGRICULTURE IN THE NATIONAL ECONOMY

In the Slovak Republic agricultural sector has been an important, but not a dominant sector in the national economy. The share of agriculture in the total GDP, employment, external trade and household expenditures are shown in Tables 1 and 2.

It is clear that the share of agriculture GDP as percent of the total GDP decreased from 9.3% (1989) to 3.8% (1999). This trend shows that the relative importance of the agricultural sector in GDP has been declining. By 1999, the sector contribution to GDP accounted to 3.79% (including forestry it was 4.3%). Before the reform period, agriculture employed 12% of the national population. Regular employment in agriculture in 1999 has decreased to 3.5% against 7.9% of total economically active population in 1992 (Table 2). Since labor employed in agriculture declined more rapidly than the overall output, there has been a measurable improvement of labor productivity at the sector level. The share of this sector in total exports and imports remained relatively stable during the second half of 1990s. On the whole, however, Slovakia is a net importer of agricultural products.

Because of the expansive fiscal policy of the government (1995–1998) which leads to high interest rates, the non-market oriented policy toward the sector, adverse climate conditions, the economic performance of the sector, and high present level of credit guarantee for agricultural production, loans and credits to this sector as per cent of total loans and credits in general have decreased (Table 3).

Table 1. The importance of agriculture

Years	Agricultural GDP as % of total GDP	Agro-food trade % of total exports	Agro-food trade % of total imports	Household expenditure as % of their income
1989	9.3	5.6	8.0	34.48
1990	7.3	6.5	7.8	34.1
1991	5.7	8.9	9.0	36.5
1992	6.2	8.6	8.2	36.5
1993	6.5	6.4	8.9	35.8
1994	6.6	5.9	9.4	38.0
1995	5.6	6.4	8.9	35.7
1996	4.74	4.9	7.8	35.23
1997	4.4	4.7	7.3	35.98
1998	3.9	4.3	6.8	35.27
1999	3.8	4.1	6.96	35.2

Sources: Green Report, 1994–2000, Overview of Agricultural Policy, SR, OECD, 1997, Statistical Yearbook of the Slovak Republic1994–2000, Annual Report of the National Bank of Slovakia,1999.

STATE SUPPORT TO THE SECTOR

Experiences from the historical development of the financing of agriculture have shown that the financing and crediting of the primary production under present conditions is determined by the commercial banks and

Table 2. Regular employment in agriculture as % of economically active persons in the national economy

Years	1992	1993	1994	1995	1996	1997	1998	1999
as % economically active persons	7.9	6.7	6.1	5.8	5.1	4.7	4.1	3.5

Sources: Statistical yearbook of the Slovak Republic1994–2000,

Table 3. Credit and loans to agricultural sector December 31 (bill SK)

	1992	1993	1994	1995	1996	1997	1998	1999
Total credits and loans in SR	236	260.8	257.6	288.1	338.8	342.3	340.3	350.2
Credits and loans to agriculture*	20.26	17.71	18.98	18.31	18.7	17.50	15.5	18.8
Agricultural credits as % of total credits and loans	8.6	6.8	7.4	6.4	5.5	5.1	4.6	5.4
Total credits as % of GDP	71	53.5	55.3	52.8	55.9	49.9	45.3	42.95
Agricultural credits as % of agricultural GDP	1.15	1.06	0.87	0.64	0.66	0.47	0.50	0.58

* including hunting and fishing
Source: Annual Reports of National Bank of Slovakia, Statistical yearbook of the Slovak Republic

Table 4. Government expenditures to the agricultural sector 1989–1999 in bill SK

	1993	1994	1995	1996	1997	1998	1999
Total state capital expenditures	12.851	12.212	15.479	29.930	31.796	24.088	21.036
Total government expenditures to the agricultural sector	9.167	9.304	9.514	9.496	11.744	12.834	11.708
of which: investment expenditures	1.289	0.958	0.935	0.991	1.0	0.90	0.925
GIB	1.88	1.67	1.15	0.77	0.81	1.67	0.62

Source: The Green Report 1994–2000, Overview of Agricultural Policy, SR, OECD, 1997 and own calculation

the market, is one of the barriers that prevent stopping the decline of agricultural production and its future development. Conditions of providing credits and interest rates do not respect the biological character of the agricultural production. The present level of credit guarantee for agricultural production achieves the index 2 to 3, which leads to 40–50% decrease on the value of the collateral (Green Report).

There are three main state funds which facilitate credits and agricultural markets in Slovakia. These are the State Supporting Fund for Agriculture (SSFA), the State Fund of Market Regulation (SFMR), and the State Fund for Agricultural Land Conservation (SFAC).

The level of budgetary support to agriculture has declined (Table 4) from the pre-reform period. The current 20% support level cannot be considered excessive, when compared to most of the developed economies. But the most important thing is whether the economic subjects utilized these scarce resources efficiently and whether the resource allocation for the whole economy is effective. According to the Ministry of Agriculture, efficiency of agricultural subsidies in 1999 on total returns at worst and better natural conditions reached 0.16 and 0.05 respectively.

CONCLUSION

Before 1989, agriculture was one of the sector, which was greatly subsidized by the government. It had a great access in getting cheap capital. After the 1991, price liberalization process this sector led to very critical economic and social problems including insolvency conditions determined by the commercial banks and the market, it is one of the barriers that prevent stopping the decline of agricultural production and its future development.

The GIB coefficient for agriculture incredibly fell from 1.88 in 1993 to its lowest value of 0.62 in 1999. This coefficient indicates that the agricultural sector received substantially lower investment or capital expenditures from the government related to its contribution to national output growth. Resources thus generated from agriculture are appropriated to the industrial and manufacturing sectors. Capital expenditures on agriculture had been based on haphazard allocation or responses to crises situation.

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Selected problems of restructuring and transforming of agriculture

Vybrané aspekty reštrukturalizácie a transformácie poľnohospodárstva

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Abstract: Theory of transaction cost is used to shed some light on transformation and restructuring of the Slovak agriculture. Transformation of the economy caused a significant decline of agricultural production. High transaction costs slow down transition towards family farming. Atomized distribution of land ownership prohibits investment into agriculture as well as transition from cooperative farming to individual farming.

Key words: agriculture, transaction cost, ownership, transition, family farms

Abstrakt: Teória transakčných nákladov osvetľuje vybrané problémy transformácie a reštrukturalizácie slovenského poľnohospodárstva. Transformácia ekonomiky spôsobila signifikantný pokles poľnohospodárskej produkcie. Vysoké transakčné náklady spomaľujú prechod na individuálne hospodárenie na pôde. Atomizované rozdelenie vlastníctva pôdy brzdí investície do poľnohospodárstva a prechod z družstevného hospodárenia na súkromné farmy.

Kľúčové slová: poľnohospodárstvo, transakčné náklady, vlastníctvo, transformácia, súkromne hospodáriaci roľníci

INTRODUCTION

Economic reforms in the Slovak Republic caused a relevant decrease of gross agricultural production. From 1989 to 1995, plant production was decreasing annually in average by 1.8%, animal production by 6.6%. The use of inputs also declined. Agricultural labor force was decreasing by 10.3% a year, machinery by 4.4 percent and fertilizers by significant 26.4%. A similar trend continued after 1995. In 1998 there was 4.93% and 4.84% share of agriculture in GDP and employment respectively (Zelená správa). For comparison in 1989 agriculture had 9.3% share in GDP and 12.1% share in total employment (ŠÚSR).

In the process of economic development, the decline of agriculture's share in GDP, employment, investment etc. is a natural phenomenon. When certain level of income is reached, expenditures on food relative to total expenditures start to decline (Engel law). The main reason is that food demand is saturated faster than demand for other goods. Economic development that raises productivity of labor in agriculture therefore naturally leads to relative decline of agricultural sector compared with the total economy.

Natural gradualist trends, however, cannot explain the depth of decline of agricultural sector during the transition period. Economic literature determines three additional factors that caused the changes in agriculture (Macours and Swinnen 2000): 1. Price, trade and tax reforms; 2. Privatization and ownership changes 3. Restructuring of agricultural production.

Similar changes occurred in other transition countries of the Central and Eastern Europe. Economic transition in the Slovak Republic and to the lesser extend in the Czech Republic and Hungary did not move agricultural sector towards the family farming as it is in developed countries of Europe and the USA. Most of agricultural production is still provided by transformed cooperatives. In 1998, 61% of agricultural land was cultivated by cooperatives while only 9% by family farms.

The goal of the paper is to analyze restructuring of the Slovak agriculture from the transaction cost perspective. The authors have no ambition to comprehensively evaluate all factors with significant impact on agricultural sectors during transition period. Main focus is on the influence of one factor only which is best explained by transaction cost theory: Property rights in transitional land ownership.

DATA

Empirical part uses data obtained by surveys in two significantly different areas of the Slovak Republic (Nitriansky kraj, Žilinský kraj). The data is obtained by a survey of family farms.

The frame was obtained from the Central Statistical Office (SU SR – Infostat). The Central Statistical Office pos-

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sesses a register of economic subjects based on branch classification of economic activities (OKEČ). All economic subjects the activity of which is related to plant production, animal production or combined production formed the frame for the survey. Branch classification of economic activities comprises a list of work activities conducted by collective subjects or individual subjects. The list is based on activities (farming), not ownership of agricultural assets (land ownership).

Two relevant regions were identified for the purpose of the survey: Nitra region (southern part of western Slovakia) and Žilina region (north-central part of Slovakia). Nitra region is the most agricultural region of the Slovak Republic producing most of Slovak agricultural commodities, and characterized by the best conditions for the development of agricultural production in the whole of Slovakia. The region of Žilina has a hilly terrain and relatively poor quality land.

There are altogether 3,031 individual farms in the Nitra region. The region of Žilina has 945 individual farms.

The sample size was 412. This number was distributed between regions proportionally based on the total number of farms in regions. The region with higher total number of farms was represented by higher number of farms in the sample. 306 farms from Nitra region and 96 farms from Žilina region are in the sample.

6 farms were selected from each settlement. Total numbers of settlements selected for visit were 21 and 16 from Nitra and Žilina respectively.

Selection of settlements in each sub-region was conducted by a procedure known as Probability Proportional to Size.

TRANSACTION COST THEORY

There has been an unprecedented development of transaction cost theory recently. A transaction has become an integral part of economic analysis and costs of conducting transactions (transaction costs) are being used to explain many phenomena that until now were either neglected by economists or remained a mystery. Coase and Williamson, both Nobel Prize laureates, are two major protagonists of transaction cost theory.

Coase's (1937) insight was that transactions, whether they are conducted within the firm or through the market, are costly. Markets and firms employ different mechanisms to coordinate the allocation of resources. Markets rely on price mechanism while the coordination role within the firm is granted to an entrepreneur. The choice between markets, firms, or hybrid forms is based on comparative efficiency of coordination mechanisms used within the firm and in the market (over firms) (Williamson 1985).

Incomplete contracts are at the crux of high transaction costs of markets. Incompleteness of contracts stems from the impossibility to foresee all contingencies and difficulty to enforce the contract because of unobservability of outcomes. Incomplete contracts produce two types of problems: moral hazard and hold-up.

Moral hazard occurs when one party undertakes ex-post, after signing of the contract, activities that are undesirable for the other party of the contract, such as debasing quality, shirking etc. Hold-up problem occurs when one party ex-post uses its power to change the contract in his/her favor. The power to renegotiate the contract comes from the other party investment of resources into relation-specific capital. When the investment into relation-specific capital is sunk, it is expensive to reverse the investment or to transform it into another use. The difference between the intended use of the investment and its second best use is called quasi-rent. Renegotiations are in fact a struggle to extract quasi-rents.

On the other hand, transaction costs associated with the coordination of the allocation of resources within the firm can also be high. They are due to communication costs, monitoring costs, principal agent problem, shirking, lack of incentives etc. The bigger the firm the higher transaction costs related to allocation of resources within the firm. There are, therefore, higher transaction costs of the firm resource allocation of cooperatives than family farms.

North (1990) divides total production costs into transformation (production) costs and transaction costs. Total production costs are the function of the level of institutions in the country. Institutions are defined as humanly devised constraints that shape human interaction. In other words, they are the rules of the game. Institutions reduce uncertainty and therefore reduce transaction costs. Transaction costs depend on institutions. Literature makes a distinction between formal and informal institutions. Formal institutions are, for example, constitution and laws. Informal institutions are unwritten trade customs or codes of behavior. Transaction cost economics differentiates between institutions and organizations. While institutions are rules of the game, organizations are players in the game. Organizations evolve to take advantage of institutions. There are political organizations (political parties, offices, pressure groups, ...), social organizations (family, church, associations, ...), economic organizations (firms, trade unions,...), or educational organizations (schools, universities, ...) etc.

RESULTS AND DISCUSSION

Ownership rights

Land ownership became relevant in the process of transition. Prior to 1989, land ownership in the Slovak Republic was only formal. Land cultivation by socialist cooperatives took priority over land ownership. A problem of extreme distribution of land ownership, however, remains. In 1997, there were 9.6 mil. plots with the average size of 0.45 ha, which were owned in average by

around 12 to 15 owners (OECD 1997). While the ownership of land was consolidated in the OECD countries (due to the pressure of the economy of scale), this process was dormant in the Slovak Republic untill 1989.

Atomized land ownership inhibited transition towards family farming. (Figure 2 depicts sample distribution of cultivated land by housholds in the Slovak Republic). The reason is high transaction costs of such a transition.

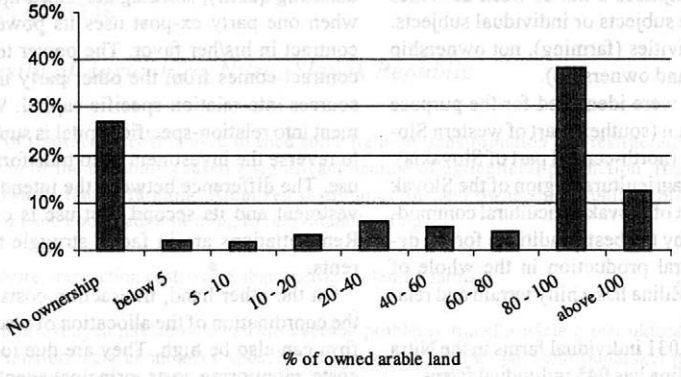

Figure1. Sample distribution of cultivated agricultural land

Source: PHARE ACE survey (2001)

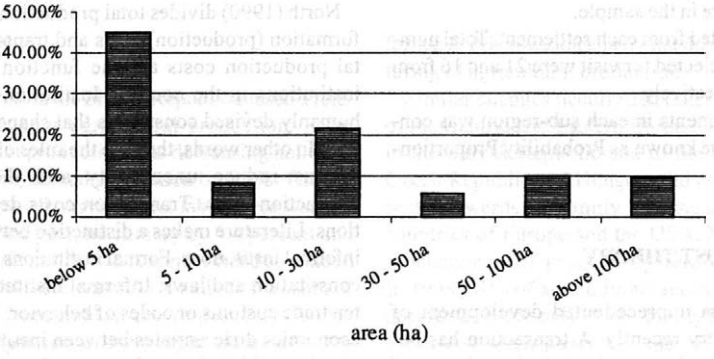

Figure 2. Ratio of owned to cultivated arable land

Source: PHARE ACE survey (2001)

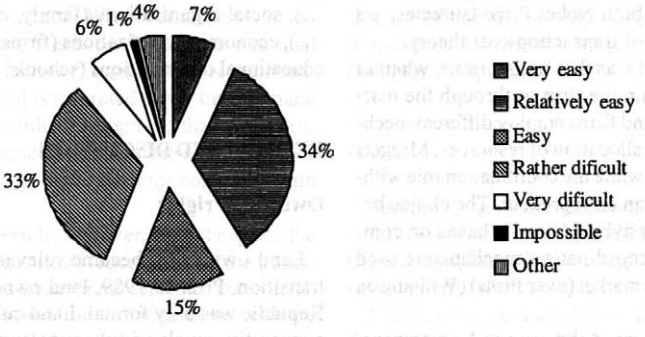

Figure 3. Buying land

Source: PHARE ACE survey (2001)

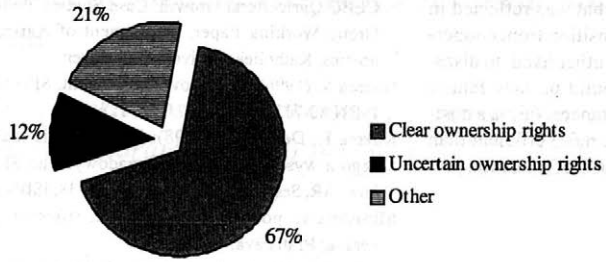

Figure 4. Security of ownership rights to land

Source: PHARE ACE survey (2001)

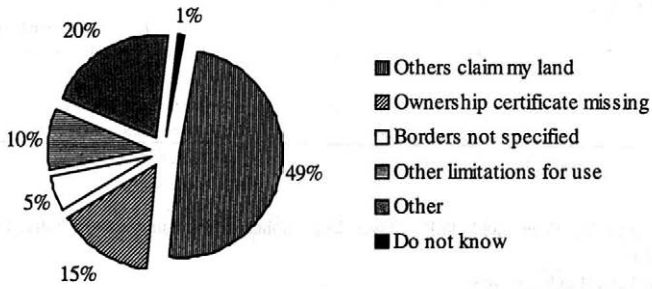

Figure 5. Reasons of land ownership insecurity

Source: PHARE ACE survey (2001)

These transaction costs are of technical character (lost or demaged cataster maps and land registers, nonexistent physical borders between plots) and legal character (long-term negligence of registering land transfers). All these are reflected in poor functioning of land market. Purchase of land is substituted by lease.

Figure 1 depicts the sample ratio of owned to cultivated arable land. There is significant percentage of farmers that do not own any land at all.

Approximately half of respondents find it difficult or impossible to buy land (Figure 3) and 12 per cent of farmers do not feel secure with land ownership (Figure 4).

This is significant given the high proportion of lease. Most of insecurity comes from the negligence of ownership rights during the socialist and after-war periods when transfers of land were not dealt with properly. That is, transfers of land (purchase, inheritance) were not registered.

Additional problems relate to the division of assets of cooperatives among the prospective farmers. Especially since agricultural production in the Slovak Republic is a capital intensive activity compared to other transitional countries like Poland, Bulgaria, Romania. It is costly to divide large-scale socialist types of cooperatives among individual farmers. Incurred fixed costs of investment into large-scale technology prohibit the transition into family farms. The problem is also exacerbated by capital market imperfections and subsequent lack of credit. Without sufficient credit, there are high start-up costs for private farming.

Public policies are also an important element in development of agriculture in the transitional period.

There is a high fixed cost of transition from cooperatives to family farms. To improve the efficiency of cooperatives requires marginal changes. That is, changes in management techniques. Strict budget constraint and

increased motivation of employees and managers actually brought about these changes what was reflected in increased productivity of labor. Transition from cooperative to family farm requires, on the other hand, to disassemble cooperative farms and to build up new family farms from the scratch. In many instances, this is a costly process. Even if family farms are more efficient than cooperatives, the high transaction costs of transition prevent development of family farms.

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Assessment of cooperatives efficiency using stochastic parametric approach

Hodnotenie efektívnosti poľnohospodárskych družstiev s využitím stochastického parametrického prístupu

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Abstract: The objective of this paper is to estimate the output-oriented technical efficiency measures using parametric stochastic production frontier model. The analysis has been performed on cross-sectional data of 61 agricultural cooperatives in the year 1998. In the model, an aggregate output of added value and three inputs for labor, capital and land have been used. Two categories of soil quality have been incorporated into the model by a dummy variable. The result of the analysis indicates that cooperatives operating on the worse soil achieve in average statistically significant lower technical efficiency scores but significantly larger variability than cooperatives operating in better conditions. Statistical tests showed significant differences between means and variability of the two groups of cooperatives.

Key words: output-orientated technical efficiency, stochastic production frontier, Cobb-Douglas production function

Abstrakt: V príspevku sú prezentované výsledky stochastického parametrického prístupu odhadu produkčných hraníc. Ako základ je použitá klasická Cobbova-Douglasova produkčná funkcia. Na báze odhadu produkčnej funkcie sú odvodené outputovo orientované miery technickej efektívnosti. Zohľadnený je aj charakter výrobných podmienok implementovaním kvalitatívnej premennej do produkčnej funkcie. Údajovú základňu tvoria podnikové údaje za vybraný súbor 61 poľnohospodárskych družstiev z roku 1998 hospodáriacich v podmienkach s rôznou kvalitou pôdy. Výstupom je pridaná hodnota, ako vstupy sú uvažované: celkový kapitál, prepočítaný počet pracovníkov, výmera poľnohospodárskej pôdy. Z dosiahnutých výsledkov vyplýva, že je štatisticky preukazný rozdiel v priemernej úrovni technickej efektívnosti v prospech podnikov lokalizovaných v lepších podmienkach. U podnikov hospodáriacich na pôde horšej kvality je vysoko preukazne vyššia variabilita mier efektívnosti oproti podnikom lokalizovaným v lepších podmienkach.

Kľúčové slová: stochastická hranica produkčných možností, outputovo orientované koeficienty technickej efektívnosti, Cobbova-Douglasova produkčná funkcia

Significant changes which take place in transition economies are accompanied with strong requirements of efficient performance of entrepreneurial subjects. Efficient performance in accordance with production economics can be simply expressed as maximization of outputs from a given set of inputs or minimization of inputs given the outputs. The standard measure of this kind of efficiency is called *technical efficiency*. In professional journals, there are published results of several analysises of efficiency on commodity, firm, sector, regional, and macroeconomic level. Mostly nonparametric methodology known as Data Envelopment Analysis (DEA) is used. In Slovakia, it has been applied in agriculture on firm and sector level by Fandel (2000a, 2000b). DEA itself cannot implicate influence of qualitative factors such as social or demographic variables. Usually it is necessary to apply Tobit regression analysis. As an alternative to DEA, parametric approach known as stochastic frontier production function is used. It has not been applied in Slovakia yet.

METHODS AND MATERIAL

From the methodological point of view, in the paper stochastic parametric approach has been applied to estimate production frontier from which output oriented technical efficiency measures have been derived. Model of stochastic production frontier has been simultaneously proposed by Aigner, Lowell and Smith (1977) and Meeusen and van den Broeck (1977). They assumed random shocks outside the control of producers which can affect output and thus measure of efficiency. They divided shocks into two components.

The analysis assumes cross sectional data of the quantities of N inputs used to produce a single output, which are available for each n producer. The stochastic production frontier can be written as follows:

$$y_i = f(x,\beta) \times exp\,(v_i)\, TE_i \qquad (1.1)$$

where:

y_i	is the output of producer i, $I = 1,2,....n$
x_i	is a vector of N inputs used by producer i
$f(x,\beta\ exp(v_i))$	is the stochastic production frontier
b	is a vector of parameters to be estimated
TE_i	is the output-oriented technical efficiency of producer i

where $f(x,\beta) \times \exp(v_i)$ is the stochastic production frontier. The stochastic production frontier consists of two parts: a deterministic part $f(x,\beta)$ common to all producers and a producer specific part $\exp(v_i)$, which captures the effect of random shocks on each producer. If the production frontier is specified as being stochastic, equation (1.1) becomes

$$TE_i = \frac{y_i}{f(x,\beta) \times \exp.(v_i)} \qquad (1.2)$$

From equation given above, we can rewrite TE_i as the ratio of observed output to maximum feasible output. $TE_i < 1$ gives a measure the proportion (shortfall) of observed output from maximum feasible output. The value $TE_i = 1$ means the achievement of technical efficiency, when the observed and maximum feasible values are identical. Impact of environmental specific dissimilarities between individual producers and excluding the random shocks from technical efficiency is the principal reason to prefer the stochastic approaches for assessment the technical efficiency in the last years. In the paper, maximum likelihood estimation (MLE) as the stochastic frontier parametric approaches for estimation of log linear Cobb-Douglas production frontier at enterprise level has been used.

SPF (Stochastic Production Frontiers)

If we assume that $f(x,b)$ takes the log-linear Cobb-Douglas form, then stochastic production frontier model given in equation (1.1) can be written as

$$\ln y_i = \beta_0 + \Sigma\, \beta_n \ln x_{ni} + v_i - u_i \ , \quad \text{where} \quad u_i \geq 0 \ ,$$

where:

v_i	is white noise
u_i	nonnegative component of the technical efficiency

The technical efficiency is computed as $TE = \exp(-u_i)$, where

$$u_i = [\beta_0 + \Sigma\, \beta_n \ln x_{ni} + v_i] - \ln y_i$$

Comparative analysis has been performed on the cross sectional data for 61 cooperatives in Slovakia in the year 1998 operated on the different soils quality. As an aggregate output, added value (AV) in thousand SK is used. In the model three inputs are included: labor (L), capital (C) in the thousand SK and farmland (V) in ha. Different farmland quality is incorporated into model by dummy variable for two groups of cooperatives operating on worse and in better quality farmland.

RESULTS AND DISCUSSION

Because of the character of the *C-D* function, all data have been log transformed. Due to all farms operating on various soil quality, the quality was expressed by zero-one (D) variable which was defined according to land price group (SCP). Farms were divided into two groups: those operating on worse land (SCP 1–15, $D = 0$) and farms operating on better land (SCP 16–20, $D = 1$). In the first group, we have 35 farm and in the second group we have 26 farms.

By the parametric stochastic approach, the stochastic model is used, which enables implementation of quality of soils through dummy variable (D). The interactive terms which enable to estimate the variously impact of the inputs in the better or worse soils quality conditions (it means different elasticity of inputs) are included in the model. Log-linear model *C-D* of the production function has the following form:

$$\ln AV_{odh} = \beta_0 + \beta_1 \ln L + \beta_2 \ln C + \beta_3 \ln V + \beta_4 D + \beta_5 \ln L \times D + \beta_6 \ln C \times D + \beta_7 \ln V \times D + (v_i - u_i)$$

Maximum likelihood method estimations are shown in Table 1. From the model we can derive two models, one for better and one for worse soil quality:

worse soil quality ($D = 0$)

$$\ln AV = 4.343 + 1.162 \ln L + 0.404 \ln C - 0.583 \ln V$$

better soil quality ($D = 1$)

$$\ln AV = 3.663 + 0.456 \ln L + 0.204 \ln C + 0.309 \ln V$$

The parameters by the individual variables represent the coefficient of elasticity. Interesting is the comparative analysis of the coefficients for the better and worse quality of soil. While in the worse soil condition increasing inputs of the labor by 1% lead to the consequence of

Table 1. Parameters of Cobb-Douglas production function and its verification

	Parameters	Coefficients	Standard error	t-ratio
Intercept	beta 0	4.343	1.413	3.07
ln L	beta 1	1.162	0.267	4.35
ln C	beta 2	0.404	0.157	2.58
ln V	beta 3	−0.583	0.177	−3.30
Du	beta 4	−0.680	2.797	−0.24
ln $L \times D$	beta 5	−0.706	0.359	−1.97
ln $C \times D$	beta 6	−0.200	0.442	−0.45
ln $V \times D$	beta 7	0.892	0.397	2.25

increasing the added value by 1.16%, in the better of the soil conditions that means increasing only by 0.46% Increasing of capital by 1% increases value added in worse conditions by 0.40%, but in better conditions only by 0.20%. One percent increase of the farm size in worse conditions decreases value added by 0.58%, but in better condition increases by 0.31%.

Table 2. Comparison of basic statistic characteristics of technical efficiency

Characteristics	Minimum	Maximum	Average	Stand. deviation
Worse conditions	0.092	0.944	0.650	0.209
Better condition	0.554	0.907	0.727	0.107

ANALYSIS OF TECHNICAL EFFICIENCY

From the estimated stochastic production frontier, technical efficiency measures are derived. Table 2 presents basic statistics of the technical efficiency according to various soil qualities.

As it is evident from the Table 2, farms operating on worse soil achieve the average technical efficiency of 0.65 and farms operating on better soil achieve the average technical efficiency of 0.73. It can be interpreted that farms operating in worse conditions achieve only 65% of the maximal output (value added) and farms in better conditions achieve from the given inputs 75% of output. The analysis showed that in the group of worse conditions farms we can find the least efficient farm ($TE = 0.092$), but also the farm with the highest technical efficiency score ($TE = 0.944$). Efficiency measures of the farms operating on better soil vary within the interval from 0.554 to 0.907.

Interval distribution of efficiency measures is shown in Figure 1. In the Figure 2, efficiency measures of all farms are showed. Also from the Figure 2, there is evident the higher variation of TE of the farms operating in worse condition and lower average technical efficiency.

We have learned that efficiency variability of farms operating in worse conditions is significantly bigger than that of farms operating in better conditions (significance level = 0.0004). One-sided test assuming equal means showed significance of 0.034.

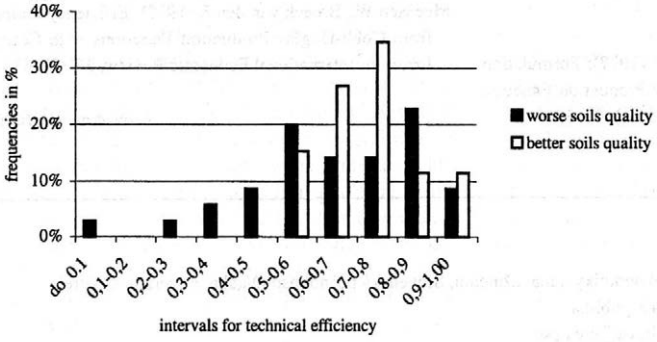

Figure 1 Distribution of technical efficiencies of cooperatives operating by worse land quality and better land quality

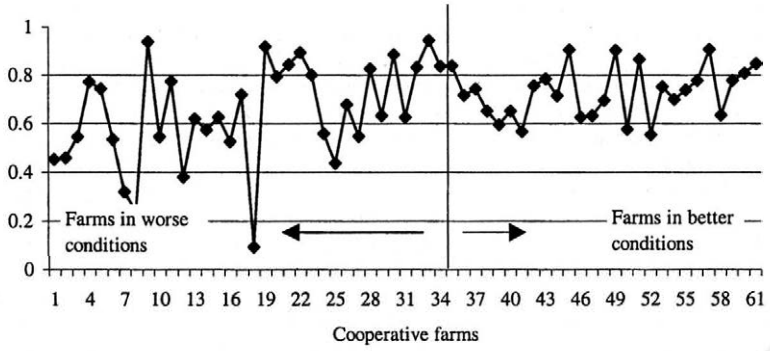

Figure 2 Technical efficiencies for all cooperatives sorted by quality of farmland

CONCLUSIONS

The paper presents an alternative approach to measuring output-oriented measures of technical efficiency via estimation of the stochastic frontier production function expressed by a Cobb-Douglas production frontier. None of the methodologies is accurate enough. The advantage of the presented approach is nonlinearity of the modeled relation between inputs and outputs and the possibility to implement simultaneously not only quantitative, but also qualitative variables, so called environmental, variables which are out of control of the manager and variables related to the farm management. From the analysis, it is possible to conclude that not only relevant inputs determine efficiency measure but also quality of management. The weak point of the presented analysis is low number of farms, which was determined by the access to the data. Expanded data set can increase information power of the results. It may be interesting from the methodological point of view to compare the result of the non-parametric approach with the parametric one. His also necessary to investigate sensitivity of results on the outliers. This topic however exceeds the focus of this article.

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INFORMACE

K 60. výročiu samostatného vysokého poľnohospodárskeho školstva

Ak v stredoveku strediskom vedy a vzdelanosti boli v Európe, kolíske západnej civilizácie, kláštory a synagógy, tak koncom feudalizmu to boli prvé európske univerzity v Bologni, Paríži, Prahe, Krakove a s istou dávkou hrdosti môžeme povedať, že od roku 1467 aj Academia Istropolitana v Bratislave, ktorá koncom 15. storočia síce zanikla, ale založila tradíciu univerzitného mesta, na ktorú neskôr v 18. a v 20. storočí nadväzovali ďalšie vysoké školy, a to nielen v Bratislave, ale na celom území terajšieho Slovenska. Tieto chrámy vedy a vzdelanosti, ktorým európsky panovníci, aj cirkev poskytovali veľký stupeň samostatnosti, si vydobyli autonómne postavenie a slobody, ktoré v demokratických podmienkach rozvoja spoločnosti sú rešpektované dodnes. Stali sa novými kolískami vzdelanosti a postupne sa oslobodzovali z paradigmických štruktúr stredoveku a scholastiky, čím označovali nástup novej epochy rozvoja vedy a techniky – novoveku.

Pripomínam tieto skutočnosti preto, aby som zvýraznil spätosť vedeckého a technologického pokroku s univerzitným duchovným prostredím, ako semenišťom nových myšlienok a poznatkov, ako aj rozvojových civilizačných podnetov. Moderná vysoká škola alebo univerzita neznamená len prínos v oblasti vzdelávania, odbornej prípravy nových generácií, ale znamená aj rozvíjanie vedeckého poznania a naň nadväzujúcich vedeckých pracovísk, laboratórií, školiacich zariadení a aplikačných pracovísk, ale aj rozvoj kultúry a vzdelanosti národa. V rovnakej miere znamená aj prerastanie vedomostného fondu a celého intelektuálneho potenciálu každej univerzity do praktického technologického procesu výroby, v poľnohospodárstve o to zložitejšom, že nedokážeme všetky výrobné faktory ovplyvniť, len s určitou pravdepodobnosťou predvídať. Ale opäť je tu veda, poznanie a nová generácia odborníkov, ktorí sa dokážu týmto prírodným nevyhnutnostiam aspoň v optimálne možnej miere sa prispôsobovať a tým zabezpečovať dostatok potravín pre obyvateľstvo.

Z týchto aspektov sa môžeme letmo pozrieť aj na vývoj Slovenskej poľnohospodárskej univerzity. Tohto roku uplynie 60 rokov od otvorenia štúdia poľnohospodárskych vied na Odbore lesníckeho a poľnohospodárskeho inžinierstva Slovenskej vysokej školy technickej v Bratislave. Na tejto, dnes už Slovenskej technickej univerzite, založenej v roku 1937, sa začalo vyučovať lesníctvo už v roku 1939, poľnohospodárstvo o dva roky neskôr. Hlavnou príčinou tohto oneskorenia za lesníctvom bol nedostatok kvalifikovaných učiteľov. Boli to skromné začiatky počas vojnových rokov, ale boli vývojovo nevyhnutné, aby súputníctvo s lesníckym vysokým školstvom mohlo pokračovať na vyššom vývojovom stupni po skončení II. svetovej vojny.

Tak ako je historickou skutočnosťou, že vznik a budovanie lesníckeho vysokého školstva je spätý s Baníckou akadémiou v Banskej Štiavnici, podobne zostane historickým faktom vznik poľnohospodárskeho štúdia v rámci Slovenskej vysokej školy technickej v Bratislave v úzkej spojitosti s lesníctvom. Na báze Odboru lesníckeho a poľnohospodárskeho inžinierstva Slovenskej vysokej školy technickej sa pred 55 rokmi vytvorila samostatná Vysoká škola poľnohospodárskeho a lesníckeho inžinierstva v Košiciach. Nakoniec vývoj poľnohospodárskeho štúdia bol zavŕšený ustanovením samostatnej Vysokej školy poľnohospodárskej v staroslávnej Nitre. Stalo sa tak pred polstoročím. Som presvedčený, že predstavitelia nášho mesta mi dajú za pravdu, keď poviem, že až príchodom našej univerzity do Nitry začali mestu – obrazne povedané – narastať krídla a jeho ďalší rozvoj, ako vysokoškolského, dnes univerzitného mesta. Veď Nitra po katastrofálnom bombardovaní na konci II. svetovej vojny predstavovala malé, stáročiami zabudnuté, spola rozbúrané provinčné mestečko, o ktorého zašlej sláve z konca prvého tisícročia, kedy bola centrom Pribinovho kniežatstva, Veľkej Moravy s prvým biskupstvom v strednej a východnej Európe ustanoveným roku 880 i sídlom údelného kniežatstva v ranom uhorskom štáte, sa zachoval iba Nitriansky hrad a elegická pieseň Nitra, milá, Nitra. Príchodom vysokej školy začala jeho transformácia a na ruinách, prikrytých nánosmi rieky, vyrástlo moderné zdravé mesto utápajúce sa v zeleni, ako univerzitné centrum a centrum slovenskej poľnohospodárskej vedy, výskumu, technológie, vzde-

lanosti, slovom centrum slovenského poľnohospodárstva a potravinárstva a rozvoja vidieka.

Aj v Nitre sa stalo to, čo sa deje vo všetkých univerzitných mestách vo svete, kde univerzity ovplyvňujú tvorbu infraštruktúry na báze svojho poznatkového fondu, personálneho, laboratórneho a prístrojového vybavenia a od nej sa odvíjajúcich a na ňu nadväzujúcich satelitných inštitúcií príbuzného odborného zamerania.

Nitrianske obdobie existencie samostatného štúdia poľnohospodárskych vied je napospol obdobím organizačnej i materiálnej výstavby školy, stabilizácie rozvojových podmienok, najmä výstavbou moderného areálu vysokej školy začiatkom 60. rokov, ktorý dodnes vzbudzuje zaslúžený obdiv doma i za hranicami. Dôkazom toho je aj skutočnosť, že dňa 15. mája 2001 bol areál SPU v Nitre v rámci ankety, ktorú vyhlásilo Združenie pre rozvoj slovenskej architektúry a stavebníctva ABF spolu s ďalšími inštitúciami, vyhlásený v kategórii občianskych stavieb za stavbu storočia.

Vytvorili sa tak priaznivé podmienky aj pre rozvoj vedeckého výskumu s početným nárastom osadenstva vysokej školy, s rastom počtu vedecko-pedagogických pracovníkov a najmä počtu študujúcich. Dnes už počet absolventov Slovenskej poľnohospodárskej univerzity prekročil 31 tisíc. Niet takmer oblasti hospodárskeho, spoločenského a politického života, kde by nepôsobili naši absolventi, vrátane postov členov vlády, ako aj členov Národnej rady Slovenskej republiky, v diplomatických službách ako aj na popredných zahraničných vzdelávacích a vedeckých inštitúciách. I tieto skutočnosti svedčia o tom, že štúdium na študijných odboroch, ktoré univerzita poskytovala aj v minulosti, a poskytuje v ďaleko väčšej miere aj v súčasnosti, dávajú možnosti všestranného uplatnenia absolventov našej univerzity.

Popri Vysokej škole poľnohospodárskej, ba možno povedať, že práve kvôli nej, v Nitre našli miesto také poľnohospodárske vedecké, pedagogické, informačné a výstavné zariadenia, ako sú: Výskumný ústav živočíšnej výroby, výstavné centrum Agrokomplex-výstavníctvo, centrálne rezortné školiace zariadenie Agroinštitút, Agentúra pre rozvoj vidieka, Ústav vedecko-technických informácií pre pôdohospodárstvo a ďalšie. Všetky zmeny, ktorými prešla naša univerzita od prvých začiatkov v Bratislave, cez sťahovanie do Košíc až po definitívne umiestenie v Nitre, môžeme bez nadsádzky hodnotiť ako prospešné pre rozvoj poľnohospodárskeho štúdia i k prospechu rozvoja poľnohospodárskych vied a praktickej výroby a rozvoja agropotravinárskeho komplexu a rozvoja vidieka na Slovensku.

Historický vývoj Slovenskej poľnohospodárskej univerzity v Nitre nebol ani počas minulého režimu izolovaný a odtrhnutý od sveta. Už koncom 50. rokov, ale najmä v priebehu politického „odmäku" Dubčekovej éry v 60. rokoch a následne rozvíjali sa medzinárodné styky. Najskôr to boli poľnohospodárske vysoké školy v susedných európskych krajinách východného bloku, a to v Poľsku, Maďarsku, Rusku, vtedajšom Východnom Nemecku, Bulharsku a Rumunsku, no čoskoro sa rozšírili aj na západné univerzity, ako je univerzita vo Wageningene, a koncom 80. rokov aj do Spojených štátov amerických. Pravdu povediac, ak sme nechceli zostať v zaostalej izolácii, nemohlo tomu ani ináč byť. Zahraničnými stážami a výmenou študentov získavali ako pedagogickí a vedeckí pracovníci, tak aj študenti. Spolupráca dávala možnosti komparácie všetkým zúčastneným stranám a v tomto zmysle bola všestranne užitočná. Obzvlášť dobré vzťahy vzájomnej pomoci a spolupráce boli s českými vysokými školami v Brne, Prahe a v Českých Budejoviciach. Najmä v začiatkoch na našej univerzite pôsobili mnohí českí profesori, neskôr na fakulty nastúpili mnohí slovenskí absolventi českých vysokých škôl, ktorí tu pôsobia dodnes.

V posledných desiatich rokoch sa situácia aj v tejto oblasti značne zmenila. Dôkazom toho je skutočnosť, že naša univerzita zabezpečuje medzinárodnú spoluprácu na zmluvnej úrovni s 33 zahraničnými univerzitami v 18 krajinách sveta. Ročne sa eviduje okolo 1 300 zahraničných pobytov učiteľov a študentov a okolo 700 zahraničných návštev na pracoviskách univerzity.

A nielen to, ale otvorenosť vzdelávacej funkcie našej univerzity sa zvyšuje prekonávaním jazykových obmedzení uplatňovaním stále vo väčšej miere angličtiny vo výučbe našich i zahraničných študentov, čo má zásadný význam pre budúcnosť našej vzdelávacej inštitúcie v zjednotenej Európe.

Nástup biologických vied v druhej polovici minulého storočia nemohol obísť ani našu univerzitu. Bol to najmä príklad Normana Borlauga, nositeľa Nobelovej ceny, tvorcu zelenej revolúcie, ktorý podnietil pracovníkov Agronomickej fakulty, zoskupených okolo výraznej osobnosti profesora Emila Špaldona, predstaviteľa biologickej koncepcie rastlinnej výroby na našej univerzite, aby rozvinuli v masovom meradle agrotechniku vysokých úrod na báze výkonných odrôd obilnín, neskôr aj ostatných poľnohospodárskych plodín. Hnutie za vysoké úrody obilnín rozvinulo široké spektrum spolupráce a to nielen s agronómmi, ale aj zootechnikmi a všetkými absolventmi na rôznych úsekoch agrokomplexu. Prišiel čas, že aj naša univerzita mohla odovzdávať svoje poznatky svetu. Od roku 1969 sa začali uskutočňovať na našej vysokej škole v istých časových periódach cykly Medzinárodného postgraduálneho kurzu UNESCO pre stredoškolských učiteľov z rozvojových krajín. To bol iba začiatok procesu prestavby našej vysokej školy na univerzitu ako otvorený vzdelávací systém. Aby sa tak naozaj stalo, bola potrebná zásadná zmena politických pomerov v našom štáte. Významné politické zmeny, ktoré zasiahli našu univerzitu po novembri 1989, aktivizovali a podnietili nové rozvojové sily. Tí, čo nepodľahli rezignácii a prirodzenému sklonu ku konzervativizmu a tvorbe nielen organizačnej, ale aj meritórnej paradigmy, boli schopní flexibilne reagovať na nové rozvojové potreby spoločnosti, podmienené radikálnymi ekonomickými a spoločenskými i politickými štrukturálnymi zmenami v stredoeurópskom a východoeurópskom priestore. Preto naša univerzita sa pomerne rýchlo upriamila na cestu

diverzifikácie univerzitného vzdelávania s presunom ťažiska zodpovednosti za profesijnú orientáciu a rozvoj osobnosti na samého študenta. Preto zmena charakteru štúdia bola vyjadrená aj v zmene názvu – Slovenská poľnohospodárska univerzita v Nitre. Nejde tu však len o formálnu stránku, ale predovšetkým o vyjadrenie obsahových, kvalitatívnych zmien v štruktúre výučby našej univerzity, ako významnej a nezastupiteľnej vzdelávacej, vedeckej a kultúrnej inštitúcie Slovenskej republiky, čo bolo potvrdené priaznivými výsledkami pri hodnotení jej fakúlt štátnym auditom.

Ďalším výrazným znakom rozvoja našej univerzity v poslednom desaťročí je otvorenosť celého vzdelávacieho systému práve tak, ako aj otvorenosť našej univerzity ako organizačnej jednotky a vzdelávacieho zariadenia voči svetu. Dokumentuje to najmä široko sa rozvíjajúca spolupráca so zahraničnými univerzitami podobného vedeckého a odborného zamerania a široká kooperácia v rámci medzinárodných rozvojových programov, grantov a pod. Len v širokom medzinárodnom kontexte môžeme totiž najlepšie vyhodnocovať aj svoju vlastnú odbornú úroveň a výsledky vlastnej vzdelávacej a vedeckej činnosti. Výrazom týchto snáh bolo aj posilnenie biologického základu štúdia, najmä v prepojení na enviromentálnu stránku pôsobenia poľnohospodárskej výroby, ktorá sa stala aktuálnym svetovým problémom. Na tomto základe sa formovala aj nová fakulta, vybudovali sa nové pracoviská, ale čo je najdôležitejšie, prekročili sa tradičné hranice obsahovej štruktúry výučby a výskumu a odborná profilácia vzdelávania a vedeckého výskumu bola obohatená o nové vedecké a študijné odbory.

Som toho názoru, že každá bilancia doterajšieho ponovembrového vývoja našej univerzity, každé obzretie sa predovšetkým na posledné desaťročné vývojové obdobie univerzity, na jej organizačné zmeny, ďalšiu výstavbu i na zmeny štýlu práce a fungovania celého vzdelávacieho systému, ktorý naša univerzita predstavuje, je veľmi užitočné predovšetkým pre nás samých.

Iste, nemôžeme hovoriť len o plynulom pozitívnom vývoji, pretože každodenný život a ekonomická realita nášho štátu nám prinášajú mnohé problémy, s ktorými permanentne zápasíme. Avšak spojeným úsilím vedení jednotlivých fakúlt i katedier darí sa nám vytvárať vhodný a vyhovujúci rámec pre vzdelávaciu činnosť všetkých foriem i pre vedecký výskum.

Osudy našej univerzity, práve tak ako osudy každého občana tohto štátu sú neodlučiteľne späté s osudmi Európy, najmä v stredoeurópskom priestore. Avšak pokiaľ ide o výživu ľudstva, tu už dávno padli štátne i kontinentálne obmedzenia a zápas o zachovanie životného, existenčného prostredia na našej planéte sa stal globálnou záležitosťou, predmetom záujmu obyvateľstva každého kontinentu. V tomto globálnom úsilí o zabezpečenie výživy obyvateľstva našej planéty zohráva nezastupiteľnú úlohu v rámci Organizácie spojených národov aj FAO a Svetový potravinový program, ako aj ďalšie významné medzinárodné organizácie. Jednotlivé odborné pracoviská a kolektívy našej univerzity pozorne sledujú svetové trendy v oblasti rozvoja poľnohospodárstva, potravinárstva a riešenia ostatných globálnych problémov existencie ľudstva predovšetkým v nadväznosti na životné prostredie. Tieto trendy sú postupne implementované do obsahového zamerania výskumných projektov, ako aj aktualizácie učebných predmetov na pracoviskách našej univerzity, čím sa zabezpečuje prepojenosť našej odbornej komunity so svetovým dianím. Z toho dôvodu sa stala aj problematika potravinovej bezpečnosti stredobodom pozornosti aj v podmienkach Slovenska a našej univerzity.

Samostatné slovenské vysokoškolské poľnohospodárske vzdelávanie má za sebou 60 rokov vývoja. Za toto obdobie Slovenská poľnohospodárska univerzita dosiahla nemalé úspechy. Jej absolventi sa výborne uplatňujú na zložitom slovenskom, ale aj európskom trhu práce. Je to aj tým, že dostávajú výborné vzdelanie od odborne zdatných a pracovitých učiteľov a ostatných zamestnancov univerzity. To, že SPU patrí medzi najlepšie slovenské univerzity, svedčí aj skutočnosť, že jej fakulty dosahujú trvalo výborné hodnotenia od renomovanej Akreditačnej komisie vlády Slovenskej republiky. Táto skutočnosť sa už dostala aj do povedomia mladej generácie. Znakom toho je aj každoročný enormný záujem o štúdium na jej fakultách.

Prof. Dr. Ing. Imrich Okenka, CSc., rektor Slovenské poľnohospodárske univerzity v Nitre, Slovenská republika

Súčasný stav a perspektívy rozvoja Fakulty ekonomiky a manažmentu SPU v Nitre

Fakulta ekonomiky a manažmentu prešla od svojho vzniku v roku 1959 zložitým a dynamickým vývojom. Veď už na začiatku svojej existencie dostala do vienka výchovu poľnohospodárskych inžinierov so zameraním na prevádzku a ekonomiku poľnohospodárskych podnikov. Takto sa mala odstrániť počiatočná absencia poľnohospodárskych odborníkov s dobrým ekonomickým a manažérskym základom. Aj preto sa k pôvodným dvom ekonomicky zameraným katedrám pridružili ďalšie štyri odborné katedry a katedra praxe.

Profil absolventa fakulty niesol z počiatku znaky poľnohospodára-technológa. Spoločenské prostredie však postupne vyžadovalo ekonomizáciu výrobných a technologických procesov. Preto bolo potrebné prikročiť k intenzívnym formám a metódam prípravy poľnohospodárskych odborníkov. Poslucháči fakulty sa mohli odborne špecializovať v odboroch „prevádzka a ekonomika" a svoju odbornosť naplno rozvinúť vo formujúcom sa poľnohospodársko-potravinárskom komplexe. Univerzálna príprava prevádzkárov a špeciálne štúdium ekonómov do roku 1972 predurčilo mnohých absolventov do viacerých manažérskych a ekonomických pozícií agrospracovateľských podnikov, ktoré úspešne vykonávajú doteraz.

Výrazné zmeny v koncepcii rozvoja fakulty nastali po roku 1989. Zmena politického systému a ekonomického prostredia vyžadovali zásadnú prestavbu a inováciu hlavne odborných ekonomických disciplín. Štruktúrne a procesné zmeny v poľnohospodársko-potravinárskom komplexe zapríčinili zníženie dopytu po klasických poľnohospodárskych odborníkoch s vysokoškolským vzdelaním. Uvedená skutočnosť sa v podstate nedotkla absolventov PEF, ktorí sa dokázali pružne prispôsobiť meniacim sa ekonomickým podmienkam. Fakulta začala naplno uplatňovať dvojstupňovú, flexibilnú formu štúdia, ktorá sa od roku 1994 naplno rozvinula do kreditného systému hodnotenia štúdia.

Strategickým cieľom fakulty sa stala výchova všestranne pripraveného agromanažéra a ekonóma s dobrým teoretickým základom z ekonomických, manažérskych a právnych disciplín, s požadovanými jazykovými a komunikačnými zručnosťami a primeranými praktickými skúsenosťami z vedenia ľudí. Naplňovanie uvedeného cieľa umožňujú od roku 1997 tri akreditované študijné odbory na inžinierskom štúdiu a dva študijné odbory na bakalárskom štúdiu s 10 študijnými špecializáciami.

Predznačené študijné odbory a špecializácie utvárajú široké spektrum odbornej profilácie s ohľadom na perspektívne pracovné zaradenie absolventov na trhu práce. Správnosť a účelnosť odborného zamerania fakulty potvrdzuje neustále rastúci záujem o štúdium na fakulte, keď na jedno miesto inžinierskeho štúdia sa hlásilo 12 až 14 uchádzačov a na jedno miesto bakalárskeho štúdia sa každoročne hlásia 3 uchádzači. To je tiež dôvod, prečo dnes študuje na fakulte 4 509 študentov pri takmer 5,0 násobnom raste oproti roku 1989. Druhým dôvodom rastúceho dopytu je prednostný záujem podnikateľských subjektov a peňažných ústavov o našich absolventov a nízke percento nezamestnanosti (5,2 %).

Fakulta ekonomiky a manažmentu v súčasnosti vzdeláva študentov v troch akreditovaných študijných odboroch a troch druhoch štúdia (Tab. 1).

Bakalárske štúdium predstavuje ucelenú formu 6-semestrálneho vysokoškolského štúdia v uvedených akreditovaných odboroch. Je ukončené vypracovaním záverečnej práce a štátnou skúškou. Úspešným absolventom štátnej bakalárskej skúšky sa priznáva titul „bakalár" (Bc.). Bakalári majú možnosť pokračovať ďalšie 4 semestre (4.–5. ročník) na inžinierskom stupni štúdia za podmienok stanovených dekanom.

Inžinierske štúdium

Inžinierske štúdium je päťročné a je koncipované do dvojstupňovej obsahovej a organizačnej štruktúry.

Tab. 1. Akreditované odbory a druhy štúdia na FEM

Stupeň štúdia	Akreditovaný odbor	Forma štúdia
Bakalárske štúdium	Riadenie v poľnohospodárstve	externá a dištančná
	Ekonomika poľnohospodárstva	externá forma
Inžinierske štúdium	Riadenie v poľnohospodárstve	denná a externá
	Ekonomika poľnohospodárstva	denná a externá
	Medzinárodný obchod	denná
Doktorandské štúdium	Odvetvové a prierezové ekonomiky	interná a externá

Prvý stupeň štúdia v trvaní 6 semestrov (1.–3. ročník) je zameraný na získanie teoretického základu z oblasti mikro a makroekonómie, manažmentu, účtovníctva, marketingu, práva, poľnohospodárskych vied, ako aj predmetov z ekonomicky podporných disciplín a zo spoločenských vied. Po ukončení prvého stupňa študenti pokračujú na druhom stupni. Prvý stupeň štúdia môžu však študenti ukončiť štátnou bakalárskou skúškou, ktorej súčasťou je aj obhajoba záverečnej práce. Úspešní absolventi bakalárskej skúšky získajú titul *„bakalár" (Bc.)*.

Druhý stupeň tvorí nadväzujúce štvorsemestrálne štúdium (4. a 5. ročník), ktoré má špecializačný charakter. Dopĺňa úplné vysokoškolské vzdelanie. Predmety zaradené v učebných plánoch druhého stupňa majú už špecializačný charakter. Študenti odborov ekonomika poľnohospodárstva a riadenie v poľnohospodárstve majú v súčasnosti možnosť vybrať si v 3. ročníku špecializáciu z nasledujúcej ponuky: podnikový manažment, kvantitatívny manažment a informatika, krízový manažment, podniková ekonomika, financie v poľnohospodárstve, účtovníctvo a audítorstvo, regionálny rozvoj, ekonomické a právne služby v poľnohospodárstve.

Pre akreditáciu sú pripravené ďalšie nové špecializácie, ktorými sú: sociálny manažment, manažment životného prostredia, komunikácia v medzinárodnom agrárnom obchode, manažment colného dohľadu, učiteľstvo odborných poľnohospodárskych predmetov.

Študenti odboru medzinárodný obchod majú špecializovaný obsah štúdia už od prvého ročníka, preto si ďalšiu špecializáciu nevolia.

Už od školského roka 1998/99 uplatňuje fakulta kreditový systém hodnotenia predmetov fungujúci v zmysle princípov a zásad Európskeho systému transferu kreditov.

Formy štúdia

FEM reaguje na meniace sa podmienky trhu práce a diverzifikuje inžinierske štúdium rôznymi prístupmi.

Okrem toho, že rozširuje odbory a špecializácie, zavádza i nové druhy a formy štúdia.

V školskom roku 1999/2000 fakulta začala realizovať *medziodborové* inžinierske štúdium ekonomika a manažment rozvoja krajiny, ktoré vzniklo z dvoch akreditovaných študijných odborov ekonomika poľnohospodárstva a krajinné inžinierstvo na základe spolupráce s Fakultou záhradníctva a krajinného inžinierstva SPU v Nitre.

Od školského roka 2001/2002 sa bude FEM podieľať na realizácii ďalších dvoch medziodborových štúdií: manažment rastlinnej výroby, manažment živočíšnej výroby v spolupráci s Agronomickou fakultou, ktorá bude ich zriaďovateľom.

Prijatím Bolonskej deklarácie a schválením koncepcie Ďalšieho rozvoja vysokého školstva na Slovensku pre 21. storočie sa rozšírilo poslanie fakulty v oblasti vzdelávania o ďalšiu dimenziu – pripraviť sa na zavádzanie európskeho systému vzdelávania. Na Fakulte ekonomiky a manažmentu sa už v súčasnosti uplatňuje trojstupňový systém vzdelávania na externej forme štúdia a to už od školského roka 1994/95. Kreditný systém hodnotenia predmetov fakulta uplatňuje od školského roka 1995/96.

Dimenziu internacionalizácie vzdelávania potvrdila fakulta vypracovaním koncepcie inžinierskeho štúdia v odbore ekonomika poľnohospodárstva, vyučovaného v dvoch cudzích jazykoch: jazyku anglickom a jazyku ruskom.

V každom školskom roku sa na fakulte realizujú *vzdelávacie programy v cudzom jazyku*, ktoré sa už stali prirodzenou súčasťou vzdelávacieho systému na našej fakulte. Sú vyučované profesormi alebo docentmi zahraničných univerzít a ich tematické zameranie korešponduje so študijnými programami FEM, resp. ponúkané predmety sa stávajú súčasťou voliteľných predmetov. Špeciálne vzdelávacie programy v cudzom jazyku sú výrazným prínosom výchovno-vzdelávacieho procesu nielen pre zdokonaľovanie sa v odbornom vyjadrovaní v cudzom jazyku, ale aj pre nové metódy a formy vzdelávacieho procesu.

Vedecký potenciál Fakulty ekonomiky a manažmentu bol v rokoch 1995–2000 orientovaný na rozvíjanie inštitucionálneho výskumu s cieľom zabezpečiť rozvoj ekonomickej teórie a na základe najnovších poznatkov rozvíjať pedagogický proces. Výstupy z riešených výskumných úloh boli taktiež orientované do poľnohospodárskej praxe a smerom k hospodárskym a riadiacim orgánom.

Výskum fakulty obsahom smeroval do nasledovných priorít riešenia: ekonomika, manažment, marketing, financie, účtovníctvo, informačné systémy a regionálny rozvoj. Významné miesto vo výskume fakulty má aj problematika ekonomiky životného prostredia, medzinárodný obchod, agrárna politika, právo a aplikovaný výskum zameraný na rozvoj prírodovedných a humanitných disciplín.

Výsledky a aktivity v oblasti vedecko-výskumnej činnosti prispeli k pozitívnemu hodnoteniu fakulty akreditačnou komisiou a jej zaradením do kategórie „A".

Početnosť riešenia vedecko-výskumných úloh riešených na FEM SPU v Nitre v období rokov 1995–2000 je vyjadrená v tab. 2.

Medzi významné projekty medzinárodnej spolupráce patria napr.:

v roku *1996* viaceré projekty s FAO:

- FAO TCP/SLO 4552/T: Plánovanie poľnohospodárskych projektov a analýza stratégií
- FAO TCP/SLO/4552/A/: Strategy for Rural Adjustment
- FAO TCP/SLO/4552/A/: Stratégia poľnohospodárskeho a vidieckeho rozvoja na Slovensku. Právne aspekty poľnohospodárstva SR;

v roku *1997:*

- Podporný fond: Fundácia – centrum edukacie ekologicznej wsi
  Názov projektu: Rozvoj prihraničných oblastí Poľska a Slovenska

Tab. 2. Vedecko-výskumné úlohy riešené na FEM SPU v Nitre

Rok	Inštitucionálny výskum	VEGA	KEGA	Medzinárodné projekty	Spolu
1995	12	4	–	11	27
1996	16	7	–	7	30
1997	19	7	–	4	30
1998	17	8	1	4	30
1999	17	2	1	17	37
2000	20	12	1	10	43
Spolu	101	40	3	53	197

v roku *1997:*
- Podporný fond: PHARE
  Názov projektu: Evaluation of Farm Level Impacts of Agricultural Policy Developments in the Process of Further EU Integration in Selected Visegrad and EU Countries
- podporný fond PHARE
  Názov projektu: Agriculture and East-West European Integration;

v roku *1998:*
- KRÉDO – Medzinárodný výskumný projekt. Rozvoj prihraničných oblastí Poľska a Slovenska;

v rokoch *1999–2000:*
- PHARE ACE : P97-8158-R
  Názov projektu: Micro-Economic Analysis of Farm Restructuring in Central and Eastern Europe.

Významné miesto v činnosti FEM má výchova vedeckých pracovníkov cestou doktorandského štúdia. V uplynulom období došlo v organizácii tohto štúdia k významným zmenám.

V súvislosti so schválením nového zákona o vysokých školách a vydaním vyhlášky č. 131 MŠ SR k priebehu doktorandského štúdia fakulta žiadala o akreditáciu doktorandského štúdia vo vednom odbore, ktorý najviac zodpovedal jej vedeckej profilácii. Na základe toho bola fakulta Ministerstvom školstva SR poverená gestorovať kreovanie Spoločnej odborovej komisie /SOK/ pre vedný odbor 62-03-9 „Odvetvové a prierezové ekonomiky". Predsedníctvo Spoločnej odborovej komisie je práve na našej fakulte.

Vedný odbor sa kreoval pre tieto špecializácie:
- ekonomika obchodu a priemyslu, v ktorej participujú tieto školiace pracoviská: Obchodná fakulta EU Bratislava, Stavebná fakulta STU Bratislava, Drevárska fakulta TU Zvolen, Ekonomická fakulta UMB Banská Bystrica, PHF EU Košice;
- ekonomika dopravy a spojov: Fakulta prevádzky a ekonomiky dopravy a spojov ŽU v Žiline;
- ekonomika a manažment poľnohospodárstva, potravinárstva a lesného hospodárstva: Fakulta ekonomiky a manažmentu SPU Nitra, Lesnícka fakulta TU Zvolen, Prognostický ústav SAV Bratislava.

V roku 2000 študovalo na FEM 120 doktorandov, z nich obhajobou dizertačnej práce ukončilo štúdium 12 doktorandov.

Rozvoj medzinárodných vzťahov

Zahraničné vzťahy a medzinárodné aktivity v oblasti vzdelávania a výskumu majú v živote Fakulty ekonomiky a manažmentu dlhodobo významné postavenie a sú zakotvené medzi prioritami rozvoja FEM.

Realizácia medzinárodnej spolupráce bola v minulých rokoch veľmi rôznorodá a jej formy sa dynamicky vyvíjali. Aktivity v oblasti zahraničnej spolupráce FEM je možné rozdeliť do nasledovných základných častí:
1. Programy a projekty medzinárodnej spolupráce
2. Spolupráca v rámci bilaterálnych zmlúv a medziuniverzitnej spolupráce
3. Aktivity v medzinárodných profesijných a iných odborných organizáciách a orgánoch
4. Medzinárodné konferencie
5. Internacionalizácia vzdelávania
6. Zahraničné pracovné cesty a prijatia zahraničných hostí.

Medzinárodné programy patria svojim významom medzi kľúčové aktivity FEM a to tak z hľadiska ich vplyvu na rozvoj vzdelávania a výskumu, ako aj vzhľadom na ich finančné a materiálne zabezpečenie. Patria dlhodobo k tým aktivitám, ktoré umožňujú realizovať mobilitu tak učiteľov fakulty, ako aj doktorandov a študentov. V posledných rokoch sa realizovalo niekoľko medzinárodných programov, ku ktorým patrili štandardné európske vzdelávacie a výskumné programy, ako aj bilaterálne programy spolupráce s európskymi a americkými univerzitami. Z európskych vzdelávacích programov boli pracoviská FEM zapojené najmä do programov TEMPUS, Socrates – Erasmus, Leonardo da Vinci a CEEPUS. Ich prínos treba vidieť predovšetkým v tom, že postupne umožňujú rozvíjať aktivity s viacerými univerzitami na partnerskom základe. Z výskumných programov bola fakulta zapojená do programu PHARE. V roku 2000 bola fakulta zapojená do 13 vzdelávacích a 7 výskumných projektov.

V rámci bilaterálnych zmlúv a spoločných projektov spolupracuje FEM v súčasnosti s viac ako 23 zahraničnými inštitúciami. Najvýznamnejšími partnermi v Európe sú predovšetkým ekonomické fakulty poľnohospodárskych, ale i nepoľnohospodárskych univerzít. Najintenzívnejšie vzťahy má FEM predovšetkým s Provozně-ekonomickými fakultami ČZU Praha a MZLU Brno. Tieto sa rozvíjajú tak v oblasti vzdelávania (výmena predsedov a členov štátnicových komisií, spoločné vzdelávacie projekty a pod.), ako aj v oblasti vedy a výskumu (výmena predsedov a členov inauguračných, habilitačných a dizertačných komisií, členov vedeckých rád). Nové perspektívy predovšetkým v oblasti výmeny doktorandov a študentov na semestrové študijné pobyty sa otvárajú uzatvorením novej zmluvy o spolupráci s PEF ČZU Praha. Dlhodobo intenzívna spolupráca je i s Univerzitou Svätého Štefana v Gödöllö, Poľnohospodárskou akadémiou v Krakove, BOKU Viedeň a Bieloruskou poľnohospodárskou technickou univerzitou v Minsku. Dlhoročná a úspešná je spolupráca s americkými univerzitami Delawarskou univerzitou a Cornellovou univerzitou predovšetkým v oblasti vzdelávacích

programov, výmeny učiteľov a študentov a spoločného výskumu. V roku 2000 FEM uzatvorila zmluvu o spolupráci so sýrskou Univerzitou v Damašku, ktorá vytvára priestor pre výmenu pedagógov a doktorandov a obnovila spoluprácu s Univerzitou v Hohenheime. Novým partnerom v USA sa stala Arkansaská štátna univerzita.

V súčasnom období pracuje na fakulte 136 pedagogických pracovníkov, z ktorých 39 % je v kategórii profesor alebo docent (u profilových katedier 58,4 %). Percento nositeľov vedeckej hodnosti na fakulte je 62,5 %, pričom u profilových katedier je toto percento 83,1 %.

Vekový priemer interných pedagogických pracovníkov je 46,3 roka. V kategórii profesorov 58,6 roka, u docentov 53,8 roka, u odborných asistentov 44,5 roka a u asistentov 26,7 roka. Celkovo vývoj kvalifikačnej štruktúry pedagogických pracovníkov Fakulty ekonomiky a manažmentu možno hodnotiť pozitívne. Najväčší progres je hlavne v kategórii profesorov, v ktorej za posledné päťročné obdobie stúpli počty 2,6-krát. Celkový počet profesorov a docentov sa stabilizoval na hranici 53.

V uplynulých piatich rokoch výrazne stúpla zaťaženosť pedagogických pracovníkov FEM SPU priamou výučbou. Počet interných študentov pripadajúcich na jedného učiteľa vzrástol od školského roku 1996/1997 na rok 2000/2001 z 9 na 14, počet interných a externých študentov z 19 až na 27, počet interných, externých študentov a doktorandov z 19 na 28 (tab. 3).

Tab. 3. Vývoj počtu študentov FEM pripadajúcich na jedného učiteľa FEM SPU za roky 1996-2001

Ukazovateľ	1996/97	1997/98	1998/99	1999/00	2000/01
Interní študenti	9,29	10,32	12,15	13,1	13,79
Externí študenti	9,76	12,38	11,72	13,08	13,49
Interní a externí študenti spolu	19,06	22,7	23,88	26,18	27,28
Interní, externí študenti a doktorandi	19,56	23,3	24,63	26,94	28,18
Spolu študujúci na všetkých formách štúdia	23,46	26,75	28,31	30,71	32,91

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If any abbreviation is used in the paper, it is necessary to mention its full form for the first time it is used, abbreviations should not be used in the title or in the summary of the paper.

The **title** of the paper should not exceed 85 characters. Subheadings are not allowed.

Abstract should contain the subject and conclusions of the paper, not a mere description of the paper. It must present all substantial information contained in the paper. It should not exceed 170 words. It should be written in full sentences and contain basic numerical data including statistical data. It must contain keywords. It should be submitted in English and, if possible, also in Czech.

Introduction has to present the main reasons why the study was conducted, and the circumstances of the studied problems should be described briefly.

Review of literature should be a short section, containing only references closely related to the main topic of the paper.

Only original **methods** should be described, in other cases cite the method used and any modifications. This section should also contain a description of experimental material.

In the **Results** section figures and graphs should be used rather than tables for presentation of quantitative values. A statistical analysis of recorded values should be summarized in tables. This section should not contain either theoretical conclusions or deductions, but only experimental data.

Discussion contains an evaluation of the study, potential shortcomings are discussed, and the results of the study are compared with previously published results (only those authors whose studies are closely related to the published paper should be cited). The section Results and Discussion may be presented as one section.

The **References** section contains citations arranged alphabetically according to the surname of the first author. References in the text include the author's name and year of publication. Only the papers cited in the text of the study should be included in the list of references.

The author should give his full name (and the names of other collaborators), academic, scientific and pedagogic titles, full address of his workplace and postal code, telephone and fax number or e-mail.

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