Quantitative evaluation of the effect of economic tools on economic policies in the food industry of the SR

Kvantinatívne hodnotenie efektu pôsobenia ekonomických nástrojov hospodárskych politík v potravinárskom priemysle SR

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Abstract: The article deals with the evaluation of competitiveness in milling, feedstuffs, pasta, spirits, wine, beer and malt industries in the Slovak Republic. It further evaluates the impacts of economic policy tools on the stated sections of food industry by means of the PAM analysis. The impact of the policies on income, costs and profits of food production in the selected food industry branches has been discovered, based on the effects of divergences and coefficients of nominal and effective protection.

Key words: competitiveness, agrarian policy, profitability, food industry

Abstrakt: Príspevok sa zaoberá hodnotením konkurencieschopnosti v mlynskom, krmovinárskom, cestovinárskom, liehovarníckom, vinárskom, pivovarníckom a sladovníckom priemysle v Slovenskej republike. Ďalej sa v ňom hodnotia dosahy nástrojov hospodárskej politiky na uvedené odbory potravinárskeho priemyslu prostredníctvom PAM analýzy. Zisťoval sa najmä dosah politík na príjmy, náklady a zisky potravinárskej produkcie vo vybraných odboroch potravinárskeho priemyslu na základe efektov divergencie a koeficientov nominálnej a efektívnej ochrany.

Kľúčové slová: konkurencieschopnosť, agrárna politika, ziskovosť, potravinársky priemysel

Slovak food industry holds an important place in providing nutrition of the population and within the activities of agro-food complex. Its fundamental raw material basis, which supplies most of the inputs, is Slovak agriculture. Food industry is the main marketing flow for the majority of products of agricultural production. Viability of food industry is shown mainly in the ability to sell foodstuff in the domestic and foreign markets, which subsequently effects the amount of profit for businessmen and all producers participating in the food production.

Due to the given reasons, it is important to quantify the competitiveness of Slovak food industry, which can be judged by various methods. One of the most complex is the method which uses the matrix of agrarian policies analysis (PAM). It makes it possible to measure the effects of policies on the income of producers, as well as identification of transfers among the groups interested, e.g., producers in the food industry system, food consumers and politicians controlling the allocation of the governmental budget. The method makes it possible to evaluate the degree of deformation of the domestic market against the non-deformed market.

Within the research task "Position of agro-food business in international markets" of the scientific and technological project "*Formation of the agro-food market of the SR in conditions of globalisation of the world economy",* a research model instrumentarium was formed at the RIAFE within the time period of 2000–2002 to study the decisive production branches of food industry and their representatives. Specifically, it was implementation of the PAM methodology on the selected goods groups of food industry.

The article issues from this research work and its aim was to define the competitiveness of selected food goods groups and products by the means of a unique model of a functional matrix of agrarian policy for food industry. This refers to:

– Evaluation of the competitiveness of selected food industries in Slovakia based on the indicators of comparative advantages of DRC and PCR, and
– discovering the impact of economic policy on incomes and costs of food production based on the effects of divergence and coefficients of nominal and effective protection.

MATERIAL AND METHODS

The primary source of information was publications and statements of the Statistical Office of the SR, publication of RIAFE, the Customs Directorate of the SR

and the Ministry of Economy of the SR, CESTAT Bulletin, Internet, data obtained through controlled interviews with the competent workers of production unions and plants of the followed branches of food industry, and data based on expert assessment.

The basis for assessments of economic prices in the majority of food products was data from the customs statistics on the amount and value of goods (CIF and FOB values). As private prices we mean prices of goods, and as social prices, the prices of import, including transport costs up to the border.

The solution of the subject issues followed especially from the development of the basic model of the matrix of the agrarian policies analysis (PAM), from the development of databases of data necessary for the matrix construction, from the analysis and synthesis of the available data, which were consequently put into the matrix, and from the mathematical calculation of the comparative advantages indicators (DRC and PCR), nominal protection (NPCI, NPCO), effective protection indicators (EPC, PC and SRP), effects of divergences (I, J, K, L) and profits (D, H).

PAM matrix is the result of two equations:

1. The first of the equations is *profitability* (1st and 2nd line of the matrix). Profits are defined as the difference of total income and costs of the production. The costs consist from tradable inputs (costs of basic material, other material, energy, repairs and maintenance and other direct costs) and domestic factors (labour and capital). Profitability is expressed in private and social prices.
2. The second equation measures the *effect of differences caused by policies and market failure* (3rd line of the matrix). In this way, it is possible to indicate the area of transfers caused by the existing policies and the effectiveness of the system itself, or comparative advantages.

PAM basic matrix

	Incomes	Costs		Profit
		trade input	domestic factors	
Private prices[1)]	A	B	C	D
Social prices[2)]	E	F	G	H
Effect of divergence[3)]	I	J	K	L

Note:
1) *Private prices* (deformed prices). Alternative markings for private prices are market prices, financial prices, domestic prices and observed prices.
2) *Social prices* (prices non-deformed, without the effect of agrarian policies and market deformations). Alternative markings for social prices are community prices,optimal prices, shadow prices, accounting prices, social prices, prices of occasional costs and the value of marginal physical product.
3) *Effect of divergence* = effect of variances

We performed the calculation of divergence effects, indicators of nominal and effective protection and comparative advantages based on the following equations:

- Private profit: D = A – B – C
- Economic profit: H = E – F – G
- Output transfer: I = A – E
- Tradable input transfer: J = B – F
- Domestic factors transfer: K = C – G
- Net transfer: L = I –J – K = D – H
- Nominal protection coefficient – for outputs: NPCO = A/E and for inputs: NPCI = B/F
- Effective protection coefficient: EPC = (A –B)/(E – F)
- Profitability coefficient: PC = D/H
- Subsidy ratio to producers: SPR = L/E
- Domestic resources coefficient: DRC = G/(E – F)
- Competitiveness coefficient: CC= 1/DRC = (E – F)/G
- Private cost indicator: PCR = C/(A – B)
- Private profitability indicator: PPR = (A – B – C)/A = D/A)
- Social cost benefit indicator: SCB = (F+ G)/E
- Private cost adjustment coefficient: PCAC = A/(B + C) – 1
- Economic cost adjustment coefficient: SCAC = E/(F+ G) – 1

The stated indicators were calculated for 1998 and 1999 for the following goods group of the food industry (OKEČ – Specified Classification of Economic Activities – classification according to the Statistical Office of the SR): 1561 – Production of milling products, 1571 – Production of ready feeds for farm animals, 1585 – Production of pasta, 1591 – Production of distilled alcoholic drinks, 1593 – Production of grape wine, 1596 – Production of beer and 1597 – Malt production.

RESULTS AND DISCUSSION

Comparative advantages of the milling, pasta and feedstuffs industries in domestic and foreign markets

The Slovak Milling Industry was economically effective in 1998 and 1999, according to the values of indices of the private cost ratio (PRC) and domestic resources coefficient (DRC) it showed comparative advantages not only on domestic but also international markets. In particular, it means that for production of one unit of foreign (domestic) currency there was needed less than one unit of domestic resources (see Table 1). Competitiveness was proved by the fact that in both followed years, the profit in the milling industry in private as well as social prices was achieved (Table 4), the value of private profitability was greater than 0 and the costs on total income in social prices of the milling industry was at the level of 64–84%.

The opposite situation was reached in the feedstuffs and pasta industries, where in 1998 no comparative advantages were indicated neither in domestic nor in inter-

Table 1. Indicators of comparative advantages in milling, pasta and feedstuff industries in 1998–1999

	Pasta industry	Mill industry	Feedstuffs industry
Year 1998			
PCR	1.14	0.82	1.21
DRC	1.22	0.28	–6.82
CC	0.82	3.63	–0.15
PPR	–0.04	0.03	–0.03
SCB	1.07	0.64	1.19
SCAC	–0.06	0.57	–0.16
PCAC	–0.03	0.03	–0.03
Year 1999			
PCR	1.11	0.83	1.21
DRC	1.53	0.51	0.53
CC	0.65	1.96	1.90
PPR	–0.04	0.03	–0.03
SCB	1.24	0.84	0.85
SCAC	–0.19	0.20	0.17
PCAC	–0.04	0.03	–0.03

Source: RIAFE

national markets. The given situation in pasta industry continued also in the following year, however, the feedstuffs industry could have been successful in foreign markets, because it reached comparative advantages (production of one unit of foreign currency requested 0.53 units of domestic resources). This fact is proved also by the positive profit value in social prices (Table 4) and also the values of other indicators of comparative advantages in foreign markets (competitiveness coefficient and the indicator of common costs contribution).

Based on the achieved values of private cost adjustment coefficient and economic cost adjustment coefficient (PCAC and SCAC), it would be possible to achieve the profitability threshold or comparative advantages in production of pasta much more easily in the domestic market than abroad. While for the domestic market it would be sufficient to decrease production costs at minimum by 4%, it would have to be by 19% to be successful in a foreign market. In the feedstuffs industry, we should have decreased the input costs for domestic market by at least 3%. The milling industry would maintain comparative advantages for international markets also at the increase of costs by 20%, or by 3% for domestic markets.

Nominal protection in the milling, pasta and feedstuffs industries

In 1999, the state indirectly subsidised tradable inputs and thus artificially decreased losses in production of industrial feedstuffs, which is confirmed by the fact that private prices of tradable inputs were, in the feedstuffs industry, lower by 13% than in free market. Neither millers nor pasta producers were favoured by the state, since the government introduced such measures which increased private prices of tradable inputs in comparison with social prices for millers by 15% and for pasta producers by 25% (Table 2).

Table 2. Indicators of nominal protection in milling, pasta and feedstuff industries in 1998–1999

	Pasta industry	Mill industry	Feedstuff industry
Year 1998			
NPCO	1.04	0.77	0.74
NPCI	1.14	1.27	0.61
Year 1999			
NPCO	1.06	0.95	0.71
NPCI	1.25	1.15	0.87

Source: RIAFE

From the values of the indicator of nominal protection (NPCO), it is evident that in the followed years, market prices of outputs from the milling and feedstuffs industries were indirectly taxed, which was reflected in their lower level in comparison with social prices. It also means that in the case of products of the milling and feedstuffs industries, it concerned consumer protection. Outputs of the pasta industry were indirectly subsidised, the evidence of which is the fact that their private prices exceeded social prices by about 6%, and thus the consumer was disadvantaged.

Evaluation of effective protection in the milling, pasta and feedstuffs industries

Negative state interventions are evident in the production of pasta, milling products and industrial feedstuffs, because in neither of the followed years, the effective

Table 3. Indicators of effective protection in the milling, pasta and feedstuff industries in 1998–1999

	Pasta industry	Mill industry	Feedstuff industry
Year 1998			
EPC	0.83	0.28	–4.71
PC	–	0.07	–
SPR	0.03	–0.34	0.17
Year 1999			
EPC	0.81	0.54	0.36
PC	–	0.19	–
SPR	0.19	–0.13	–0.17

Source: RIAFE

protection coefficient (EPC) reached a value higher than 1, which means that in these sectors of the food industry, a higher value added would have been produced without state interventions (Table 3).

If we evaluate state interventions according to the profit coefficient, it may be stated that they decreased the market value of profits in the milling industry, which would have been, e.g., in 1999, by 81% higher without state interventions.

However, political deformations according to the subsidy ratio to producers (SPR) positively influenced the income amount in the pasta industry (an increase by 19%); on the contrary, it would have been higher in the milling and feedstuffs industries without state interventions.

Profitability in the milling, pasta and feedstuffs industries

Table 4. Effect of divergence and profits in milling, pasta and feedstuffs industries in 1998 a 1999 (SKK/t)

	Income	Costs		Profit
		Tradable inputs	Domestic factors	
Milling 1998				
Private prices	5 822	4 769	868	186
Social prices	7 532	3 764	1 038	2 730
Divergence effect	–1 710	1 005	–170	–2 545
Milling 1999				
Private prices	5 765	4 659	915	191
Social prices	6 093	4 055	1 042	996
Divergence effect	–328	604	–127	–805
Pasta 1998				
Private prices	22 982	17 255	6 531	–804
Social prices	22 057	15 156	8 394	–1 492
Divergence effect	925	2 099	–1 863	688
Pasta 1999				
Private prices	23 740	15 663	8 996	–920
Social prices	22 440	12 528	15 196	–5 285
Divergence effect	1 300	3 135	–6 200	4 365
Industrial feedstuffs 1998				
Private prices	6 958	5 863	1 325	–229
Social prices	9 444	9 676	1 585	–1 817
Divergence effect	–2 485	–3 814	–260	1 588
Industrial feedstuffs 1999				
Private prices	7 014	5 913	1 332	–232
Social prices	9 886	6 785	1 631	1 470
Divergence effect	–2 871	–871	–299	–1 701

Source: RIAFE

Production of pasta and feedstuffs was non-profitable in private prices in the followed period, and in years 1998–1999, the loss per ton of pasta product amounted to 800–900 SKK. The reason can be seen in the fact that resources of the pasta industry were not used efficiently, which is evidenced by the negative profit balance in social prices. In the feedstuffs industry, the situation was better, since in 1999, a profit of 1 470 SKK/t was achieved in social prices.

Resources of the milling industry were used sufficiently, in private prices a profit of 190 SKK/t was achieved and in economic prices of 1 000–2 700 SKK/t.

In Table 4, there are shown particular values of divergence effects in milling, pasta and feedstuffs industries. From them, it follows that income from pasta production in private prices was higher than in social prices, while in the milling and feedstuffs industries the situation was opposite. It follows that in the pasta industry, output transfer was demonstrated positively and in feedstuffs and milling industries, negatively.

Implicitly, also prices of tradable inputs into milling (604 SKK/t) and pasta (3 135 SKK/t) industries were taxed. A positive transfer of tradable inputs was directed to feedstuffs producers, because domestic prices of the inputs (especially grain) were lower than the world prices. In particular, it follows from the analysis that in 1999, the prices of tradable inputs of feedstuffs producers were implicitly subsidised by the sum of 871 SKK/t.

Prices of domestic factors were lower for all followed producers in private prices than prices of their occasional costs, therefore we refer to a positive transfer, where market and political deformations caused implicit subsidising of domestic factors prices. From the values of net transfer in Table 4, it also follows that in 1999, profits of pasta industry were implicitly subsidised by the sum of 4 365 SKK/t (this industry would show an even larger loss in private prices without the support) and on the contrary, regarding profits in feedstuffs and milling industries, it concerned their implicit taxation (for production of feeding mixtures by 1 701 SKK/t and in the milling branch by 805 SKK/t).

Comparative advantages of spirit, wine, beer and malt industries in domestic and foreign markets

We evaluate positively the fact that in the followed years, the spirit, wine and beer sectors were competitive in the domestic market, the malt sector only in 1999, and profit was indicated in private prices (Tables 5 and 6). Also the positive values of indicators prove the existence of market stimuli for the extension of production and sale in the domestic market, e.g. in 1999, the profit share in total incomes of spirit sector was 14%, of wine sector 18%, beer sector 11% and malt sector 11%.

The followed food branches did not indicate unambiguous comparative advantages in the international markets. In 1998, which was from this point of view more favourable than the following year, wine and beer pro-

Table 5. Indicators of comparative advantages of spirit, wine, beer and malt industries in years 1998–1999

	Spirit industry	Wine industry	Beer industry	Malt industry
Year 1998				
PCR	0.84	0.80	0.99	–1.22
DRC	–15.51	0.56	0.80	–8.52
CC	–0.06	1.78	1.26	–0.12
PPR	0.07	0.06	0.00	–0.59
SCB	1.98	0.73	0.89	1.62
SCAC	–0.49	0.37	0.13	–0.38
PCAC	0.07	0.06	0.01	–0.37
Year 1999				
PCR	0.62	0.54	0.78	0.69
DRC	–4.53	–6.00	0.60	1.05
CC	–0.22	–0.17	1.66	0.96
PPR	0.14	0.18	0.11	0.11
SCB	1.76	1.58	0.75	1.01
SCAC	–0.43	–0.37	0.34	–0.01
PCAC	0.16	0.22	0.12	0.12

Source: RIAFE

duction was, according to indicators of comparative advantages and costs of own resources, successful – in 1999, it was so only in beer production. The spirit and malt industries would not have achieved comparative advantages in the international markets, therefore, export of our distilled alcoholic drinks and malt in the followed period was not economically efficient.

From the values of private cost adjustment coefficients of social costs stated in Table 5, it follows that competitiveness in the domestic market (profitability threshold), would have been achieved also with increased costs, in the spirit sector in maximum by 16%, in the wine sector by 22%, and in the beer and malt sectors by 12%. If we wanted to achieve comparative advantages in the international markets, we would have to decrease costs in production of spirits at minimum by 43%, in production of wine by 37%, and in production of malt by 1%. We would have maintained comparative advantages of the beer sector abroad also in the case of the increase of production costs by 34%.

Nominal protection in spirit, wine, malt and beer industries

In the production of alcoholic drinks in 1999, private prices of tradable inputs were higher in comparison with their social prices by about 10% (in distilled alcoholic drinks by 8%, in wine by 10% and in beer by 13%), which would negatively affect the profits of producers of alcoholic drinks. An opposite situation obtained in the production of malt, where, on the contrary, the state slightly

Table 6. Indicators of nominal protection in spirit, wine, beer and malt industries in years 1998 and 1999

	Spirit industry	Wine industry	Beer industry	Malt industry
Year 1998				
NPCO	1.95	1.20	0.85	0.95
NPCI	1.06	2.22	1.07	1.12
Year 1999				
NPCO	1.95	1.95	0.82	1.04
NPCI	1.08	1.10	1.13	0.96

Source: RIAFE

supported prices of tradable inputs and thus contributed to the increase of profit of malt-houses. For malt, the difference between the domestic and foreign price of tradable inputs was 4%.

With regard to outputs, from the values of nominal level of protection coefficient, it follows that in the spirit and wine industries, negative measures of the state in the price policy of inputs were compensated by the level of domestic output prices, which exceed their price on the border by an almost double value. It also shows a disadvantage in purchasing their products. In beer production, however, output prices were 18% below the level of optimal price, which significantly favoured the consumer to the detriment of the producer. An opposite situation exists in the production of malt, where, as it has already been said, state measures in 1999 slightly decreased domestic inputs and overvalued prices of their outputs (by 4%), so malt customers were eventually disadvantaged.

Evaluation of effective protection in spirit, wine, beer and malt industries

In production of wine and beer, state interventions unfavourably affected the level of profits (achievement of profitability), which is documented by the values of the effective protection coefficient, which were lower than 1 in 1998. In such a case, the state should certainly re-evaluate its supportive activities. In malt production, the situation is the reverse, the added value in this commodity was, e.g. in 1999, by 24% higher than it would have been without the state intervention. In this case the producers are stimulated positively.

The unfavourable influence of state interventions is evident in the wine and beer industries, where profits could have been substantially higher without the influence of policies. In particular, in the wine industry by 74% and in beer industry by 64%.

The value of producers´ share in subsidies confirms that the state interventions were effective in increasing incomes from the production of distilled alcoholic drinks (in spirit industry by 103%, in wine industry by

Table 7. Indicators of effective protection in spirit, wine, beer and malt industries in years 1998 and 1999

	Spirit industry	Wine industry	Beer industry	Malt industry
Year 1998				
EPC	–13.96	0.58	0.67	3.85
PC	–	0.26	0.04	–
SPR	1.11	–0.20	–0.11	0.06
Year 1999				
EPC	–5.23	–9.35	0.65	1.24
PC	–	–	0.36	–
SPR	1.03	0.93	–0.16	0.13

Source: VÚEPP

93%, and in malt industry by 13%). An opposite situation was in production of beer, where negative state interventions caused a decrease of incomes in the beer industry.

Profitability and effects of variances in spirit, wine, beer and malt industries

The production of alcoholic drinks (distillates, wine and beer) was profitable in private prices in the followed period. Positive profit in social prices was, however, achieved only in beer, which proves the efficient use of resources in its production. In distillates and wine, the situation was opposite. Regarding profitability in malt industry, it was achieved in spite of the fact that production resources were not effectively used in this branch. A proof of this is the sector's loss in social prices.

Based on the positive values of products transfer (Table 8), we can talk about a positive influence of the state in production of distilled drinks, wine and malt, because income in the given branches was implicitly subsidised on a high level (in 1999, production of distilled drinks by 45 030 SKK/t, wine production by 18 922 SKK/t of the product, and malt production by 335 SKK/t of the product). Implicitly taxed was the income from beer production, in 1999 in particular by the sum of 1 807 SKK/t.

Tradable inputs prices in the production of alcoholic drinks were implicitly taxed (negative transfer) in particular, in production of distillates in 1999, this was the sum of 4 279 SKK/t, in wine production by 2 046 SKK/t and in beer industry by 476 SKK/t. On the contrary, in malt production, the tradable inputs prices were in 1999 implicitly subsidised by the sum of 217 SKK/t.

A positive transfer of domestic factors was manifested in all branches of alcoholic drinks production and in malt production, because occasional costs of domestic factors were higher than their private prices. Specifically, this means that prices of domestic factors were implicitly subsidised in 1999, in particular in the production of distilled drinks by the sum of 8 386 SKK/t, in wine production 1 577 SKK/t, in beer production by 625 SKK/t, and in malt production 438 SKK/t.

The positive value of net transfer proves that the profits of producers of distilled alcoholic drinks, wine and malt were subsidised and without state interventions, these branches would not have achieved profit. In distilled alcoholic drinks, there occurred indirect subsidy in the sum of 49 137 SKK/t, in wine production 18 454 SKK/t and in malt production 989 SKK/t. On the contrary, profits from beer production would have been higher without state interventions by 1 658 SKK/t.

Table 8. Divergence effects and profits in spirit, wine, beer and malt industries In 1998 and 1999 (SKK/t)

	Income	Costs		Profit
		tradable inputs	domestic factors	
Distill. drinks 1998				
Private prices	81 899	47 198	29 008	5 693
Social prices	41 945	44 430	38 540	–41 025
Divergence effect	39 954	2 767	–9 532	46 718
Distill. drinks1999				
Private prices	92 672	58 458	21 259	12 954
Social prices	47 642	54 179	29 645	–36 183
Divergence effect	45 030	4 279	–8 386	49 137
Wine 1998				
Private prices	37 278	26 043	9 012	2 223
Social prices	30 969	11 751	10 806	8 413
Divergence effect	6 309	14 292	–1 794	–6 189
Wine 1999				
Private prices	38 740	23 494	8 207	7 039
Social prices	19 818	21 448	9 785	–11 415
Divergence effect	18 922	2 046	–1 577	18 454
Beer 1998				
Private prices	7 811	4 436	3 337	39
Social prices	9 158	4 138	3 999	1 021
Divergence effect	–1 347	298	–662	–983
Beer 1999				
Private prices	8 371	4 169	3 272	930
Social prices	10 178	3 694	3 897	2 588
Divergence effect	–1 807	476	–625	–1 658
Malt 1998				
Private prices	8 570	10 837	2 763	–5 030
Social prices	9 069	9 658	5 020	–5610
Divergence effect	–499	1 179	–2 258	580
Malt 1999				
Private prices	8 110	5 234	1 994	882
Social prices	7 775	5 450	2 432	–107
Divergence effect	335	–217	–438	989

Source: RIAFE

CONCLUSIONS

By means of the PAM analysis, we evaluated the comparative advantages or competitiveness of selected food sectors based on coefficients of comparative advantages, and identified the impact of political measures on incomes, costs and profits of food production based on the divergence effects and nominal and effective protection coefficients. From the analysis, these summarised conclusions follow:

- *Milling industry* was in 1998 and 1999 economically effective and showed comparative advantages not only in the domestic, but also in international markets. At the same time, in both years profit was achieved in private and social prices.

This positive position was achieved by milling industry in spite of the fact that measures of the state economic policy disadvantaged it, because private prices of tradable inputs in comparison with social prices increased under the influence of policies by about 20%. Similarly, this industry was disadvantaged also in prices of its outputs, which was documented by lower market prices in comparison with abroad. The consumer was thus advantaged. State interventions in the milling industry decreased the market value of profits, which would have had higher a level without the influence of state policies (state interventions).

The competitiveness of the milling industry was thus caused by the effective use of resources. In private prices, profit of about 190 SKK per ton was achieved, but in social (world) prices it would have been several times higher.

- *The feedstuffs industry* evidenced in 1999, in contrast with the preceding year, some comparative advantages in international markets[1], what is also underlined by the positive value of profit in social prices. In the domestic market, however, there was a lack of competitiveness and no profit achieved.

As a result of state intervention, which in both followed years gave advantages to producers, there was a markedly lower level of private prices of tradable inputs and of domestic factors, in comparison with the social prices. On the contrary, the 30% lower producer price in the domestic market in comparison with the international one was primarily due to the negative profit balance of the industry. At these prices, the feedstuffs industry would have to lower input costs by 3% in order to achieve the profit threshold.

From the above, it follows that the state did not act effectively in either of the followed years in the production of feedstuffs.

- *The pasta industry* did not achieve comparative advantages in either the domestic or the international market[1] in the followed years, showing losses in both private and social prices. Relatively favourable is the fact that the profit threshold could have been achieved in the domestic market through costs decrease by 4%. To achieve this threshold in the international market would call for a significant cost reduction (minimally by 19%).

What regards the influence of political measures, producers were favoured to the detriment of consumers through the artificial increase of the prices of finished products. Also favourable for pasta producers was the fact that market price for their domestic resources, in comparison with social price, was in 1998 by 22% lower, in 1999 by 41%. Costs for tradable inputs were higher, however, as a result of political measures, to the detriment of producers.

State intervention did not contribute to the achievement of profitability in the pasta industry, which in the followed period did not use effectively its resources, but without it, according to the results of divergence effects, the value of the negative profit balance would have been even deeper.

- *The spirits industry* was competitive in the domestic market and it brought profit in private prices. However, it did not have any comparative advantages in foreign markets (it should have decreased costs of tradable inputs and domestic factors by more than 40%).

It maintained competitiveness in the domestic market due to the artificial increase of prices of final products, which were almost by 95% higher in market prices than in private prices. The consumer was significantly disadvantaged due to these reasons. With regard to the influence of political measures on costs, tradable input prices were artificially increased (by about 7%) to the detriment of producers. Prices of domestic factors were significantly advantaged on behalf of producers (by about 25%).

It follows from the analysis, that in the period in question, the spirits industry did not use its resources effectively and it would not have achieved any profit without state interventions.

- *The wine industry* was competitive in the domestic market in the followed years – it achieved profit. In the international markets, it was highly non-competitive in 1999 in contrast with the previous year, and would have had to decrease its costs by 37% to achieve comparative advantages.

Political interventions of the state in both followed periods were, with regard to influencing product prices and costs, in principle the same. It means that output and domestic factors prices were influenced to the benefit of the producers and to the detriment of tradable inputs. The resulting effect of state interventions was differentiated. In 1998, wine producers used their resources effectively and reached profit. In the following year, however,

[1] The reasons for the achievement of comparative advantages in the feedstuffs industry in international markets in 1999, in contrast with the preceding year, are connected with, among other things, the marked fall of social prices for business inputs in 1999, which showed in the increase of value added, and consequently in the value of the DRC coefficient.

[2] In 1999, in comparison with the previous year, the prices of wine fell significantly and costs of input raw material sharply increased in world markets.

they would not have reached profit without the political measures [2].

- *The beer industry* was economically efficient in 1998 and 1999. It reached comparative advantages in both domestic and international markets and also gained profit in private and social prices and even if costs had been increased, it would have maintained its comparative advantages.

The beer industry achieved this favourable situation in spite of the fact that, as a result of state interventions, private prices of tradable outputs were by about 10% higher than social prices. Disadvantaging of the beer industry was also shown in the lower market price of products in comparison with social prices, thus benefiting the consumer. As regards costs of domestic factors, the situation was reversed, meaning a reduction of about 16% for the producer.

Competitiveness of the beer industry was achieved by the efficient use of resources. In effect, the state influenced negatively producers' profits, which would have been higher without such interventions.

- *The malt industry* did not show comparative advantages in 1998, and was not profitable. In 1999 in international markets, it was still not sufficiently competitive, but it improved its position in the domestic market, achieving a private price profit of 882 SKK per ton of product. It has equal opportunities in international markets, since in the followed years, it would have been sufficient to reduce costs of tradable inputs and domestic factors by 1% in order to gain comparative advantages abroad.

The malt industry did not use its resources effectively, and without state intervention, it would not have achieved a positive profit value in 1999.The political/economic measures benefited it and resulted in lower costs and somewhat higher malt prices.

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Arrived on 19th July 2002

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