

# Influence of subsidies on the economic result of agricultural firms in production and marginal areas

*Vliv dotací na hospodářský výsledek zemědělských podniků v produkčních a marginálních oblastech*

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**Abstract:** This article is divided into four parts: the first is concerned with the state subsidy and support policy in the year 2001. The second part of the contribution mentions the subsidy development in production and marginal areas in the period 1996–2001 and its influence on the economic result of an average farm. Another part monitors the grant volume and the economic result at a selective sample of the identical firms in the time period from of the year 1997 to the year 2001 in reference to the farm position. The last part will deal with an evaluation of the grant volume where the subsidies are divided according to the subsidy titles in the year 2001 in an average agricultural firm farming in a certain altitude.

**Keywords:** grant volume, grant title, marginal areas, production areas, economic result, grant, grant policy

**Abstrakt:** Příspěvek byl rozdělen do čtyř částí, z nichž první se zabývá podpůrnou a dotační politikou státu v roce 2001. V druhé části příspěvek uvádí vývoj dotací v produkčních a marginálních oblastech v časové řadě od roku 1996 do roku 2001 a vliv dotací na hospodářský výsledek průměrného zemědělského podniku. Další část monitoruje objem dotací a hospodářský výsledek u výběrového souboru totožných podniků v časovém rozmezí od roku 1997 do roku 2001 s ohledem na polohu podniku. V poslední části je hodnocen objem dotací rozdělených podle dotačních titulů v roce 2001 u průměrného zemědělského podniku hospodařícího v určité nadmořské výšce.

**Klíčová slova:** objem dotací, dotační titul, marginální oblasti, produkční oblasti, hospodářský výsledek, dotace, dotační politika

The main problems of agriculture in the Czech Republic is drop of competitiveness which is expressed by squeezed possibilities of product application on the domestic market and their decreasing export. Further subsistence threatens of the dominant part of the contemporary farms and increasing deterioration of land and cultural landscape, which is also caused among others by under-management of farmland, especially in the areas with less favourable conditions.

The cause of these problems is a not quite equal farm position in relation to the farms in the neighbouring countries. This situation arose from the earlier accepted, too liberal international business commitments, together with much higher starting level of the market protection in most of the neighbouring states. The unequal farm position is also deepened by the persisting protectionist agricultural policy of the developed countries, which bases the competitiveness of the farms on the national economy power.

On that account the agrarian sector must struggle for as extensive development of new activities as possible, first of all in the areas with less favourable conditions. The production and export development of the agrarian

commodities the production of which is of advantage especially to the farms with high concentrated agricultural production, agricultural diversification into services of landscape preservation and other environmental services, which can also contribute to creation of the new working occasions in the country, agriculture and processing industry diversification into untraditional productions e.g. production of the renewable sources of energy, production of so-called regional specialities, regional or local products and running nonagricultural activities.

The agrarian policy conception supports the “European model of agriculture” because the character of agriculture of the Czech Republic is mainly submountain and mountain type and is endangered by progressive liberalization and globalization of the world agrarian market and overseas competition. For the successful development of more competitive, intensive but environmentally friendly agricultural production there is necessary a systematic state subsidy policy, which supports first of all the development of agriculture specialized more on extensive agricultural production and on services which will provide landscape preservation and other environ-

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mental services, first of all in the areas with less favourable conditions (roughly speaking on 50% farmland fund of the CR).

## 1. STATE SUPPORTING AND SUBSIDY POLICY

The objectives of the state agrarian policy are first of all farm prosperity, adequate earnings and appropriate working and living conditions of the agricultural population, provision of consumption of the mild zone agrarian products mainly from the domestic production at the equal ratio between imports and exports of these products and agriculture participation on the preservation and development of rural environment and maintenance of country settlement (Table 1).

Table 1. Financial survey for the year 2001

Indicator	Budget	
	thousands CZK	%
<i>Total means volume</i>	<i>11 453 919</i>	<i>100.00</i>
PGRLF	1 355 103	11.83
Direct supports APK	9 541 560	83.30
government regulation No.505/2000 Sb.	2 868 841	25.04
government regulation No.420/2000 Sb.	4 139 183	36.14
Supports according to "Principles"	2 533 536	22.12
Supports in LH	469 120	4.10
Ponds free of mud	88 136	0.77

Source: MA CR Prague

### Supporting programs for agriculture according to "The Principles" of the MA in the year 2001

- 1.C. – Renewal of vineyards, hop-gardens, fruit groves and area isolates

The aim of the programme was the support of the growers interests in necessary renewal of the permanent crops. Should the renewal of permanent crops not to be supported by the direct support, planting of new growth would be practically stopped by the reason of high input cost, long time of the investment return. In the year 2001 there were planted out with support 626 ha vineyards, 277 ha of hop-gardens were renewed and 505 ha fruit groves were planted out. The total support in terms of the 1.C. supporting programme was ca. 229.5 million CZK.

- 1.G. – Support of milking cow breeding

The purpose of this supporting programme is the increase in the average efficiency of the milking cows and of the number of the milking cows, which runs over the determined efficiency. The aim of the programme was to achieve the competitive advantage of milking cows

breeding before the EU entrance. 180.691 million CZK on the whole was paid out on this supporting programme.

- 1.I. – Support of the establishment of drop irrigation in fruit groves, hop-gardens and vineyards

The aim of this programme was to remove the lack of moisture during vegetation and the increase of fruit competitiveness and quality. 22.910 million CZK was paid out on this programme.

- 1.J. – Non-food utilization of farmland – support of ecological fuel acceptance

The aim of this programme was to support the non-food utilization of the agricultural production. In the year 2001 597.5 million CZK was used on the 1.J. supporting programme.

- 1.L. – Cow breeding without market milk production, sheep and horse breeding

The aim of this programme was to limit the drop of cow and sheep numbers, drop of calves production and healthy foal breeding. In terms of this programme, 63 826 pieces of calves from cows without market milk production, 49 312 sheep (e.g. 54.6% of the total sheep state) and 944 foals were endorsed. 473.5 million CZK was paid out on the 1.L. supporting programme.

- 1.R. – Milk consumption support

The aim was to decrease the calcium deficit at children's population and to ensure milk sale for farmers. This programme markedly contributed to the increase in the milk and milk products consumption in schools. 10.616 million CZK was paid out in terms of this programme.

- 2.A. – Maintenance and improvement support of the genetic potential of the farm animals and fish

The aim of this supporting programme was to provide, according to the Act 154/2000 Sb., of cultivation, inbreeding, registration of the farm animals and MZE CR regulations, maintenance and improvement of the genetic potential of the listed farm animals. 219.902 million CZK was drawn on the 2.A. supporting programme.

- 2.B. – Support of the genic seed and seedling potential maintenance

The aim of the mentioned support is to preserve the availability of the high-quality seed and seedling varieties for growers, lower price maintenance than in case of foreign materials. 167.759 million CZK was paid out on this supporting programme.

- 2.C. – Support of the health state improvement of perennial wheat and the quality of perennial colza and soya

The aim of this programme was to improve the health state of perennial wheat, quality improvement of perennial colza and soya by means of grant on purchase of the standard seed. The support was in the total amount of 181.561 million CZK for 3 685 applicants.

- 3. – Support of improvement of the field and special crop health state

The aim of this programme was to support the health state of the grown crops by means of biological plant protection support, support of the isolats of the breed material of fruit wood species, hops and vine and support of using of the certificate potato seedlings. On the

whole 49.980 million CZK was paid out on this supporting programme.

- 5. – Support of Starokladubský horse breeding

The aim is preservation of the genic reserve of the only Czech horse breed. On the whole, 39.9 million CZK was paid out on this supporting programme.

- 6. – Support of the gene source maintenance

The aim is to provide, keep in and utilize the gene sources of animals, fish and bees, micro-organisms and diminutive organisms of the farm importance and plants for agriculture. Within this supporting programme ca. 55 million CZK was expended.

- 7. – Young beginning farmers support

The aim is the support of the development of small and middle undertaking through young beginning farmers support. On the whole 117.469 million CZK was expended on this programme.

- 8. – Infection fund

The purpose of this programme was to reduce economic losses of the standard listed illnesses and also possibly the reimbursement of a part of the demonstrable expended cost on the insurance of the farm animals infection, the insurance for case of natural disaster to the growers. On the whole 127.2 million CZK was expended on this supporting programme – 8. – Infection fund.

- 9. – Support of counselling and education

The aim was to enable to the entrepreneurs in agricultural basic industry to use qualified counselling services. 54.8 million CZK was expended on this supporting programme.

- 10.A. till C. – Support of the establishment and activity of the producers' distribution organizations

The aim was to support the establishment and activity of the producers' distribution organizations at the selected agricultural commodities in order to the common distribution of the agricultural products and creation of the effective marketing structure. In the year 2001, 21.9 million CZK was expended on the 10.A. till C. supporting programme.

- 10.D. – Support of the European integration of non-governmental organizations

The aim is an integration of the listed Czech non-governmental organizations into the European non-governmental organizations acting in the EU seat. 6 million CZK was expended on this supporting programme.

- 13. – The programme on the reimbursement of the cost expended in connection with the MZE (SLAK) decision

This supporting programme was extra created in July 2001 in reaction to the state territory protection against spreading of the foot-and-mouth-disease (SLAK) on the CR territory and therewith connected extraordinary veterinary precautions. 4.2 million CZK was expended in the framework of this supporting programme.

### **Supporting programmes according to government regulations No. 505/2000 Sb. in the year 2001**

This regulation aim is to second sustained settlement of the rural area, to maintain the landscape in cultural state

and to provide job opportunities for provincial population.

- § 8 – Assistance programmes to the support of less favourable areas

The aim of this programme was to keep a cultural rural landscape of the Central European character and its lasting settlement by the equalization of the differences between production and less favourable areas in the CR. The grants in the framework of this programmes did 1 747 million CZK and they concerned 742 758 hectares of the farmland.

- § 12 – Programmes to support the non-production functions of agriculture

The aims of this programme were:

- a) support and restructuring of agriculture in the areas with less favourable conditions by widening of the grass-covered ground,
- b) landscape keeping support on the areas which are less favourable for agricultural production by widening of the grass stand areas, which are kept by cattle-range,
- c) support of the production of ecological foodstuff and landscaping without ecological ballast,
- d) maintenance and development of beekeeping as an instrument of pollination of the cultural and wild grown plants in the country,
- e) to contribute by the increase in the areas of lime lots to the reduction of the constant trend of the increase of soil acidity and thereby to maintain the soil fertility and environment improvement,
- f) support of the creation of new territorial elements, which will keep biota in the original surroundings as a part of landscape,
- g) support of utilization of the plots, which are not currently suitable for the profitable foodstuff production and this production is replaced by ecological biofuel production.

These supports included 978 263 hectares and were 972.596 million CZK.

### **Support and Guarantee Farm and Forest Fund, a.s. (PGRLF)**

In the year 2001, the PGRLF provided subsidies in the programmes:

PROVOZ (PRODUCTION) – short-term supports to the solution of seasonal fluctuation of the operation cost financing.

INVESTICE (INVESTMENT) – support of realization of the long-term investment goals, with regard on restructuring and effectiveness increase of the agricultural and manufacturing entrepreneurial subjects.

MLÁDÍ (YOUTH) – support of the young entrepreneurs in family farms.

EXPORT – export support of the selected agricultural and food commodities.

In the framework of this fund, 1 332.8 million CZK were paid from the given subsidy programs.

## 2. SUBSIDY DEVELOPMENT IN THE PRODUCTION AND MARGINAL AREAS

The farm sample was divided according to sea level into the production area, where an average farm altitude is up to 450 m above the sea level, and the marginal area with an average altitude over 450 m above sea level. The number of the analysed farms moved between 104 and 189 in each year, average farm date were calculated as a simple average. An average farm size moved between 1 577 ha and 1 841 ha of agricultural land.

In the monitored period, we can observe in an average farm in the production area almost monotonous growth of the subsidy volume. In the year 1996 the subsidy volume in an average farm were 839.1 thousand CZK and in the year 2001 this volume was 3 431.7 thousand CZK. The average growth rate of the subsidy volume in the production areas is 126% and in the marginal areas 118%, it means, that the subsidy volume grew faster in the production areas than in the marginal areas. We can record the biggest growth of the subsidy volume in the production areas in the year 1999, the index 1999/1998 was 185%. In the year 2001 a subsidy volume dropped almost on the level of the year 1999 occurred, the index 2001/2000 was 63% (Table 2).

The economic result before taxation shows an increasing trend during the whole monitored period (Figure 1).

We can notice two fluctuations in years 1997 and 1999, when an average farm in the production area managed with a loss. During the last two years an average farm showed an outstanding improvement of the economic result. Conversion in a hectare of the farmland, the economic result was 1 191 CZK in the year 2000 and 1 114 CZK in the year 2001. The subsidy volume in those years was 2 899 CZK/ha in the year 2000 and 1 815 CZK/ha in the year 2001. The subsidy volume per 100 CZK performance moved between 1.7 CZK (in 1996) and 8.6 CZK (in 2000) in the production areas. After deduction of subsidies from the economic result before taxation we can see, that the economic result is negative during the whole monitored period. The least loss can be noticed in the year 1996, namely -633.3 thousand CZK, that loss was 1.26% performance. The biggest loss can be observed in the year 1999, namely -4 266.6 thousand CZK, it means loss of 6.69% performance in that year.

In an average farm in the marginal area the subsidy volume increased each year till the year 2000. The subsidy volume in an average farm was 1 596.1 thousand CZK in 1996 and 4 289.5 thousand CZK in 2001. In 2001, a subsidy volume drop 88% of the previous year occurred. Comparing the index 2001/1996 in the production and marginal areas we can state, that the subsidy volume increase during the whole monitored period was running much faster

Table 2. Subsidy volume in the production areas in years 1996–2001

	1996	1997	1998	1999	2000	2001
<i>Farms total</i>						
Number of the farms	45	40	47	64	34	58
Grant volume in 1 000 CZK	839.1	1 249.7	1 856.3	3 431.3	5 431.4	3 431.7
Economic result b.t. in 1 000 CZK	205.9	-1 531.2	212.1	-835.3	2 231.9	2 106.1
Land area in ha	1 516.4	1 874.2	1 864.1	1 930.7	1 873.2	1 890.2
Performance in 1 000 CZK	50 386.5	60 383.1	64 409.8	63 758.2	63 229.2	7 1276.9
Subsidy volume/profit in CZK	4.1	-0.8	8.8	-4.1	2.4	1.6
Subsidy volume/ha in CZK	553.4	666.8	995.8	1 777.2	2 899.6	1 815.5
Subsidy volume/100 CZK performance	1.7	2.1	2.9	5.4	8.6	4.8
HV before taxation – subsidy	-633.3	-2 780.9	-1 644.1	-4 266.6	-3 199.5	-1 325.7
<i>Subsidised farms</i>						
Number of the farms	38	30	33	62	33	56
Subsidy volume in 1 000 CZK	993.7	1 666.3	2 643.8	3 542.0	5 596.0	3 554.3
Economic result b.t. – subsidy in 1 000 CZK	215.5	-1322.6	287.3	-900.8	2 553.1	2 266.5
Land area in ha	1 490.2	2 016.4	1 708.2	1 940.6	1 872.1	1 865.0
Performance in 1 000 CZK	45 835.3	58 064.3	59 358.7	61 087.5	64 476.1	70 256.8
Subsidy volume/profit in CZK	4.6	-1.3	9.2	-3.9	2.2	1.6
Subsidy volume/ha in CZK	666.8	826.4	1 547.7	1 825.2	2 989.2	1 905.8
Subsidy volume/100 CZK performance	2.2	2.9	4.5	5.8	8.7	5.1
Economic result b.t. – subsidy	-778.2	-2 988.9	-2 356.4	-4 442.8	-3 042.9	-1 287.8
<i>Non-subsidised farms</i>						
Number of the farms	7	10	14	2	1	2
Economic result before taxation	153.6	-2157.0	34.9	1 195.0	-8 369.0	-2 386.5
Land area in ha	1 659.0	1 447.6	2 231.7	1 624.5	1 908.0	2 596.4

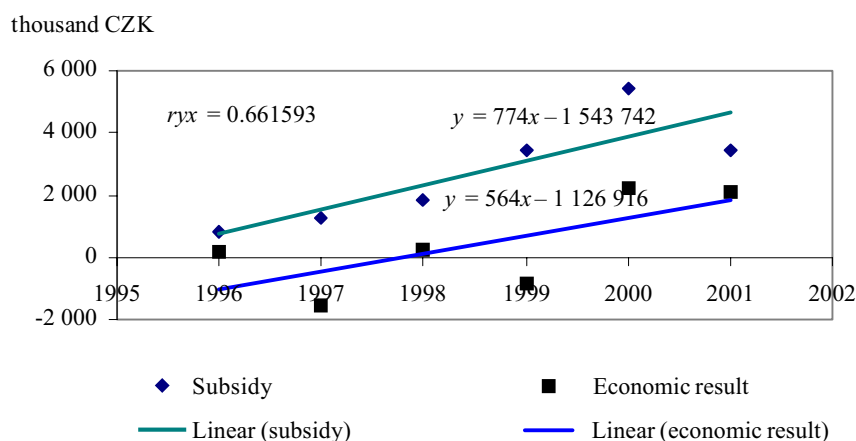


Figure 1. Subsidy volume and the economic result in the production areas

in the production areas ( $i_{01/96} = 410\%$ ), than in the marginal areas ( $i_{01/96} = 270\%$ ).

During three from the total six monitored years, an average farm in the marginal area was farming with loss, namely in years 1996, 1997 and 1999. Nevertheless, we can observe an increasing trend of the economic result during the whole monitored period in the marginal areas. The economic result before taxation per hectare of farmland had been moving between  $-746$  CZK/ha (in 1996)

and  $1\,044$  CZK/ha (in 2000). The highest subsidy volume per a hectare of farmland was in the year 2000 and was  $2\,907$  CZK/ha. The subsidy volume per  $100$  CZK performance had been moving between  $4.5$  CZK (in 1996) and  $12.2$  CZK (in 2000) and this ratio was higher during the whole monitored period than in the production areas. After deduction of the subsidy volume from the economic result before taxation, the economic result would be unprofitable in all the analysed years. The lowest loss was

Table 3. Subsidy volume in the marginal areas in years 1996–2001

	1996	1997	1998	1999	2000	2001
<i>Farms total</i>						
Number of the farms	144	93	102	86	70	89
Subsidy volume in 1 000 CZK	1 596.1	1 962.6	3 096.7	4 422.1	4 845.3	4 289.5
Economic result b.t. in 1 000 CZK	-1 192.0	-626.9	148.4	-226.3	1 741.1	762.9
Land area in ha	1 597.1	1 665.1	1 705.4	1 774.7	1 666.7	1 703.6
Performance in 1 000 CZK	35 832.7	40 087.3	40 845.5	42 592.5	39 768.2	44 830.6
Subsidy volume/profit in CZK	-1.3	-3.1	20.9	-19.5	2.8	5.6
Subsidy volume/ha in CZK	999.4	1 178.7	1 815.9	2 491.7	2 907.2	2 517.9
Subsidy volume/100 CZK performance	4.5	4.9	7.6	10.4	12.2	9.6
HV before taxation – subsidy	-2 788.1	-2 589.6	-2 948.3	-4 648.4	-3 104.2	-3 526.6
<i>Subsidised farms</i>						
Number of the farms	131	89	82	84	69	88
Subsidy volume in 1 000 CZK	1 754.5	2 050.8	3 852.0	4 527.4	4 915.5	4 338.3
Economic result b.t. – subsidy in 1 000 CZK	-1 129.5	-641.6	102.2	-163.2	1 762.0	765.7
Land area in ha	1 606.9	1 658.3	1 719.3	1 770.7	1 674.3	1 707.6
Performance in 1 000 CZK	35 895.6	40 130.0	42 946.6	43 004.0	40 100.4	45 130.7
Subsidy volume/profit in CZK	-1.6	-3.2	37.7	-27.7	2.8	5.7
Subsidy volume/ha in CZK	1 091.9	1 236.7	2 240.4	2 556.8	2 935.8	2 540.6
Subsidy volume/100 CZK performance	4.9	5.1	9.0	10.5	12.3	9.6
Economic result b.t. – subsidy	-2 884.0	-2 692.4	-3 749.7	-4 690.6	-3 153.6	-3 572.6
<i>Non-subsidised farms</i>						
Number of the farms	13	4	10	2	1	1
Economic result before taxation	-1 821.2	-300.8	337.6	-2 876.0	303.0	522.0
Land area in ha	1 498.9	1 816.2	1 648.0	1 942.9	1 137.9	1 356.3

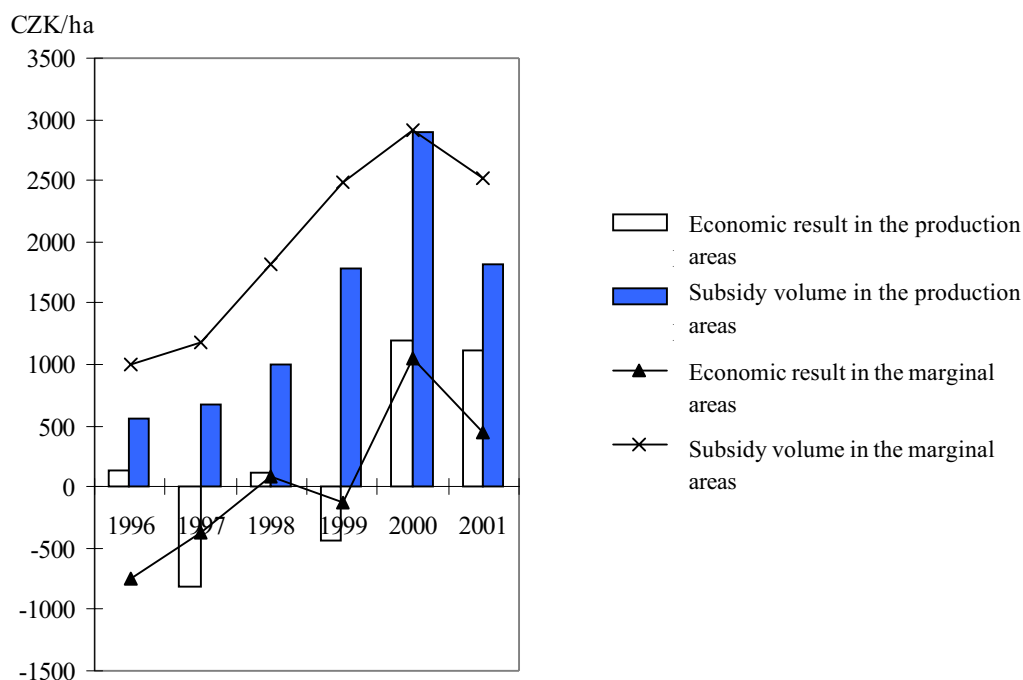


Figure 2. Economic result and subsidy volume per a hectare of farmland

in 1997, namely -2 589.6 thousand CZK, what represents a loss of 6.46% performance in that year. In 1999 the highest loss appeared, namely -4 648.4, what represents 10.9% of that year performance (Table 3).

Comparing the subsidy volume in the production and marginal areas we can state, that during the years 1996–2001 there was a higher subsidy volume in the marginal areas than in the production ones (Figure 2). An exception was the year 2000 when the subsidies in the marginal areas were only 89% of the subsidies in the production areas. This expressive subsidy volume increase in the year 2000 (first of all in the production areas) can be put down to the loss compensation caused by that year drought. During the whole period we can see a very expressive tendency in difference reduction between the subsidy height in the production and marginal areas on behalf of the production areas. If in the year 1996 the subsidies in an average farm in the production area were 52.6% of the subsidies in the marginal area, then in the year 2001 that difference was reduced to 80% and in the year 2000 the subsidies in the production areas were 112.1% of the subsidy volume in the marginal areas.

The subsidy volume per 100 CZK performance is expressive higher in the marginal areas than in the production ones as well as the loss of the economic result without subsidies in proportion to performance is considerably higher in the marginal areas than in the production areas. In the year 2001, the loss of the economic result without subsidies in the production areas was 1.86% performance whilst in the marginal areas this loss made 7.87% performance. There exist an expressively lower economic result in the farms without subsidies in the both areas.

### 3. SUBSIDY HEIGHT AND VOLUME OF THE ECONOMIC RESULT BEFORE TAXATION IN THE COMPARABLE FARMS IN YEARS 1997–2001

For more exact appreciation of the subsidy development and their influence on the economic result in an average farm, a file of the identical farms was created in years 1997–2001. The file was analysed partly as a whole (47 farms), further the farms were divided according to an average sea level in which they are farming.

In years 1997–2001, there was possible to monitor 9 identical firms farming in the zone up to 450 metres above sea level. An average economic result in the production areas was unprofitable in years 1997 and 1999 the subsidy volume had been growing till the year 2000, when the growth was 177% of the previous year. In 2001 the subsidy volume decreased to 52% of the previous year.

In the same period it was possible to compare 38 identical firms farming in the marginal areas. An average firm farming in the zone over 450 metres above sea level had a positive economic result in years 1998–2001, was farming with loss only in 1997. The subsidy volume had been increasing till 2000, the annual growth had been decreasing from 152% to 110% and in the year 2001 the subsidy volume achieved only 87% of the previous year.

The highest subsidy volume was in the zone 550–600 m above sea level, except the year 1997, when it was higher in the zone 600–650 m above sea level. Just in 2000 there was a positive economic result in all the altitudes. Also the subsidy volume was higher in this year and in 2001 its expressive decrease occurred. In the zone up to 550 m above sea level, the subsidy volume in an average farm was even lower than in the year 1999 (Table 4).

Table 4. Average subsidy amount in comparable farms

Year		1997			1998		
Altitude	number of the farms	average subsidy amount	economic result b.t.	land area	average subsidy amount	economic result b.t.	land area
Up to 450	9	1 010.67	-1 016.33	1 935.58	2 369.11	1 209.56	1 978.57
450-500	9	972.44	-391.32	1 537.80	3 385.00	1 119.33	1 576.83
500-550	10	2 841.00	-270.00	1 393.38	3 693.00	464.00	1 345.21
550-600	9	3 187.67	-365.67	2 161.47	4 820.44	-115.78	2 145.21
600-650	8	3 503.63	-522.38	1 556.49	3 745.75	2 343.75	1 545.36
Over 650	2	2 074.50	1 307.50	800.45	4 396.00	694.00	803.95
Over 450	38	2 579.71	-291.50	1 612.63	3 935.18	889.74	1 603.19
Total	47	2 279.26	-430.30	1 674.47	3 635.30	950.98	1 675.07

Year		1999			2000		
Altitude	number of the farms	average subsidy amount	economic result b.t.	land area	average subsidy amount	economic result b.t.	land area
Up to 450	9	3 509.11	-833.44	2040.91	6 204.67	1 440.56	2 002.03
450-500	9	4 354.67	-379.00	1 571.64	4 822.33	1 696.44	1 619.24
500-550	10	4 130.98	-113.00	1 344.44	4 614.60	1 867.50	1 313.58
550-600	9	5 542.22	1 425.11	2 024.78	6 061.33	1 869.56	2 024.09
600-650	8	4 700.00	732.75	1 526.31	5 407.25	1 864.75	1 497.63
Over 650	2	3 903.50	184.00	8 38.70	3 720.00	483.50	853.51
Over 450	38	4 626.02	381.97	1 571.05	5 126.24	1 754.05	1 568.79
Total	47	4 412.14	149.23	1 661.02	5 332.74	1 694.02	1 651.75

Year		1997			Index 2001/1997		
Altitude	number of the farms	average subsidy amount	economic result b.t.	land area	average subsidy amount	economic result b.t.	land area
Up to 450	9	3 202.33	299.78	1 958.85	3.17	-0.29	1.01
450-500	9	3 998.00	1 106.89	1 584.47	4.11	-2.83	1.03
500-550	10	3 881.10	1 622.00	1 288.96	1.37	-6.01	0.93
550-600	9	5 563.67	-596.11	2 067.92	1.75	1.63	0.96
600-650	8	4 621.25	-51.50	1 486.85	1.32	0.10	0.96
Over 650	2	3 839.50	132.50	8 51.20	1.85	0.10	1.06
Over 450	38	4 460.92	543.95	1 562.06	1.73	-1.87	0.97
Total	47	4 219.91	497.19	1 638.04	1.85	-1.16	0.98

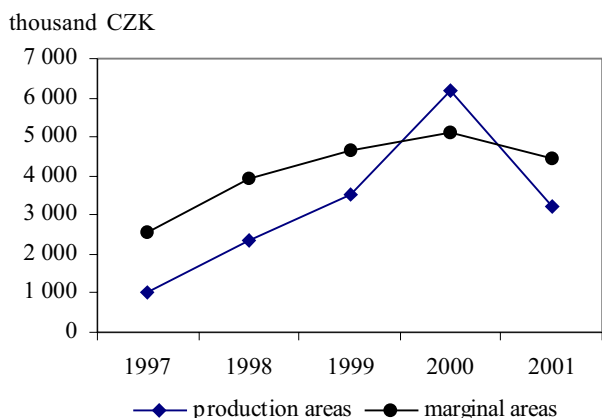


Figure 3. Subsidy development in the production and marginal areas in the identical farms

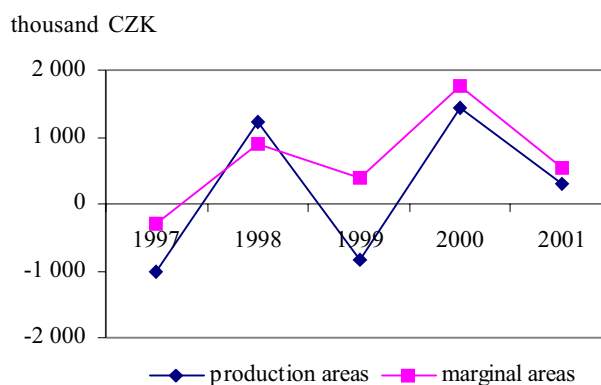


Figure 4. Economic result development in the identical farms in years 1997-2001

As can be noticed from Figure 3, the subsidy volume in an average farm had been increasing in the production and marginal areas till the year 2000, when there was a higher subsidy volume in the production areas than in the marginal areas. In 2001, a subsidy volume decrease occurs in both the analysed areas. In the production and marginal areas, the economic result before taxation has a growing tendency. From Figure 4, there can be seen higher economic result in the marginal areas than in the production areas during all the years except 1998.

#### 4. SUBSIDY VOLUME EVALUATION ACCORDING TO SEA LEVEL IN THE YEAR 2001

In the year 2001, there was analysed a sample of 147 firms, 58 of them was farming in the production areas and 89 in the marginal areas. In the year 2001, a sample of 147 farms was monitored while 58 of them in the production areas and 89 in the marginal 89 areas. 144 farms were given subsidies amounting to 580.8 million CZK – 41.9% was provided in terms of the Government regulation 505/2000 Coll., 23.6% in terms of State Agricultural Intervention Fund, 17.9% in terms of supporting programmes according to “Principles” and 10.4% in terms of Support and Guarantee Farm and Forestry Fund (Table 5).

In the production areas 56 farms were given subsidy amounting to 199 million CZK. The biggest subsidy volume was provided by State Agricultural Intervention Fund, 64.8 million CZK, which represents 32.6%, further by Government regulation 505/2000 Sb., 42.4 million CZK, which represents 21.3% and by supporting programmes according to “Principles”, 39.8 million CZK, which represents 20% of the whole subsidy volume in that area.

In the marginal areas the total subsidy volume was 381.8 million CZK and it was given to 88 farms. The biggest subsidy volume falls on the subsidy title Government

regulation 505/2000 Coll., which determines the supporting programmes to the support of non-production function of agriculture, to the support of the activities concerning landscape maintainance, assistance programmes to the support of less favourable regions. In terms of this programme, there was given 200.8 million CZK, it represents 52.6%, in the marginal areas, then in terms of State Agricultural Intervention Fund 72.5 million CZK, it means 19% and in terms of supporting programmes according to “Principles” 64.4 million CZK, which is 17% of the total subsidy volume given in these areas.

In an average farm in the production areas, the subsidy volume in the year 2001 was 3 431 thousand CZK, which represents 86.9% grants given to an average farm. In terms of Government regulation 505/2000 Coll., an average farm in the production area was given by 731.3 thousand CZK, which is 44.19%, in terms of State Agricultural Intervention Fund was paid out 1 118 thousand CZK, it is 119.6% and 686 thousand CZK was given in terms of Supporting programmes according to “Principles”, it is 96.9% of subsidies given in terms of this programme to an average farm.

In the marginal areas 4 289.5 thousand CZK, it is 108.6% of the subsidy volume of an average farm, was given to an average farm. 2 256.7 thousand CZK was provided in terms of Government regulation 505/2000 Coll., it represents 136.37%, 815 thousand CZK in terms of State Agricultural Intervention Fund, it is 87.2% and 723 thousand CZK was given in terms of Supporting programmes according to “Principles”, which represents 102% of grants given in terms of this programme to an average farm (Table 6).

Figure 5 shows the subsidy volume and the economic result before taxation in the year 2001 in an average farm in a certain zone above sea level. Subsidies divided according to the subsidy titles in the year 2001 in an average farm are shown in Figure 6.

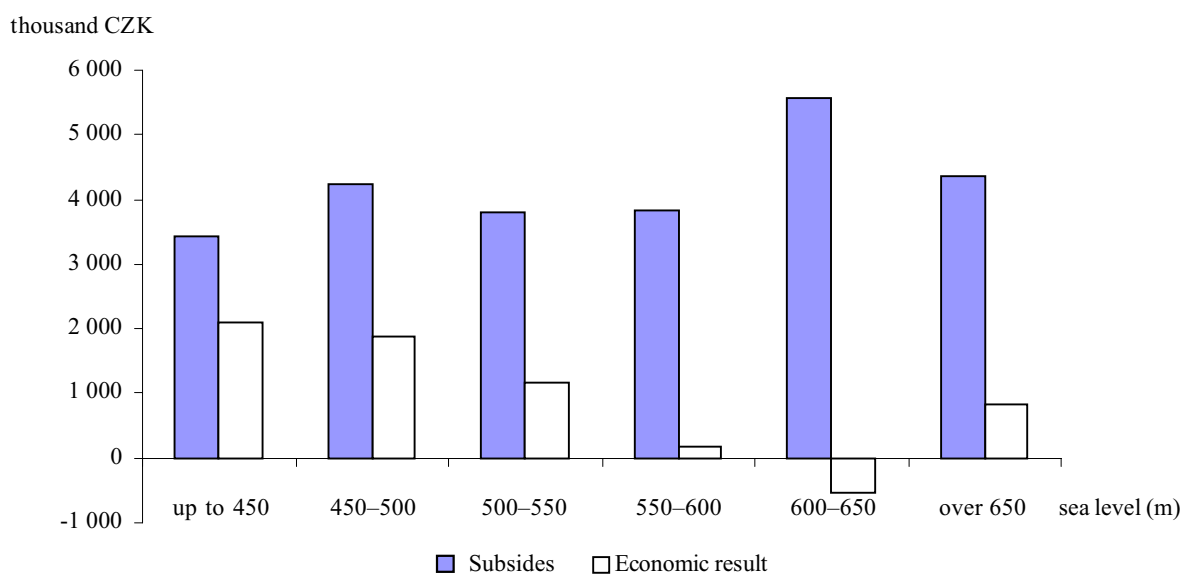


Figure 5. Subsidies and economic result in an average farm according to sea level in 2001



Table 5. Subsidy volume given to an average farm according to sea level in the year 2001 in thousand CZK

Number of farms	147	58	21	27	19	18	4	89
Subsidy title	total	–450 m	450–500	500–550	550–600	600–650	over 650	over 450
1.C. Vineyard, hop-fields renewal	42.36	107.36	0.00	0.00	0.00	0.00	0.00	0.00
1.G. Milking cow breeding	153.48	191.95	166.95	122.48	164.74	76.28	28.00	128.40
1.J. Ecological fuel	32.73	20.66	90.71	63.26	0.00	0.00	0.00	40.60
1.L. Suckler cows	202.61	133.12	235.29	93.85	171.05	514.33	520.00	247.90
2.A. GP animals improvement	36.18	37.59	39.19	55.52	20.26	21.78	10.00	35.27
2.B. GB seed and seedl. improvement	41.92	11.22	24.05	11.44	41.00	217.67	0.00	61.92
2.C. Health state of wheat. colza	65.59	92.86	76.48	47.19	33.26	26.89	64.75	47.81
3. Field crop improvement	56.27	10.16	246.38	34.26	0.00	87.94	0.00	86.31
6. Gene source keeping	0.08	0.00	0.00	0.44	0.00	0.00	0.00	0.13
8. Infection fund	72.76	72.10	70.24	110.17	57.53	49.83	18.50	73.19
9. Counselling	4.80	9.59	0.57	3.78	0.00	2.00	0.00	1.69
Gov. reg. 420/2000	168.79	369.59	38.14	39.44	29.58	52.67	0.00	37.93
Gov. reg. 505/2000	1 654.84	731.29	1 331.14	2 112.11	2 140.37	3 430.94	3 360.25	2 256.70
ÚP grants	0.98	0.00	0.00	0.00	5.68	2.00	0.00	1.62
PGRLF	411.77	441.47	848.86	174.48	428.89	200.72	156.50	392.42
SZIF	934.61	1118.05	1026.00	881.85	689.11	766.17	75.00	815.06
Gov. reg. 76/2000	66.14	74.21	44.33	45.74	36.58	112.22	134.50	60.89
Breeders League	1.32	1.03	2.38	0.00	4.42	0.00	0.00	1.51
Off- mudding of pond	3.44	8.71	0.00	0.00	0.00	0.00	0.00	0.00
Gov. reg. 354/2001	0.31	0.79	0.00	0.00	0.00	0.00	0.00	0.00
Gov. reg. 154/2000	0.10	0.00	0.00	0.56	0.00	0.00	0.00	0.17
<b>Total subsidy volume</b>	<b>3 951.07</b>	<b>3 431.74</b>	<b>4 240.71</b>	<b>3 796.58</b>	<b>3 822.47</b>	<b>5 561.44</b>	<b>4 367.50</b>	<b>4 289.50</b>

Table 6. Subsidies given to an average farm in the year 2001 according to sea level in %

Subsidy title	Total	–450 m	450–500	500–550	550–600	600–650	Over 650	Over 450
1.C. Vineyard, hop-fields renewal	100.00	253.45	0.00	0.00	0.00	0.00	0.00	0.00
1.G. Milking cow breeding	100.00	125.07	108.78	79.80	107.34	49.70	18.24	83.66
1.J. Ecological fuel	100.00	63.11	277.18	193.29	0.00	0.00	0.00	124.04
1.L. Suckler cows	100.00	65.70	116.13	46.32	84.42	253.85	256.65	122.35
2.A GP animals improvement	100.00	103.88	108.31	153.44	56.00	60.19	27.64	97.47
2.B. GB seed and seedl. improvement	100.00	26.78	57.37	27.30	97.81	519.26	0.00	147.72
2.C. Health state of wheat. colza	100.00	141.59	116.61	71.95	50.72	41.00	98.73	72.90
3. Field crop improvement	100.00	18.05	437.89	60.89	0.00	156.30	0.00	153.41
6. Gene source keeping	100.00	0.00	0.00	544.44	0.00	0.00	0.00	165.17
8. Infection fund	100.00	99.10	96.53	151.41	79.06	68.49	25.43	100.58
9. Counselling	100.00	199.60	11.90	78.66	0.00	41.64	0.00	35.09
Gov. reg. 420/2000	100.00	218.96	22.60	23.37	17.52	31.20	0.00	22.47
Gov. reg. 505/2000	100.00	44.19	80.44	127.63	129.34	207.33	203.06	136.37
ÚP grants	100.00	0.00	0.00	0.00	580.26	204.17	0.00	165.17
PGRLF	100.00	107.21	206.15	42.37	104.16	48.75	38.01	95.30
SZIF	100.00	119.63	109.78	94.36	73.73	81.98	8.02	87.21
Gov. reg. 76/2000	100.00	112.19	67.03	69.15	55.30	169.67	203.35	92.05
Breeders League	100.00	78.39	180.41	0.00	335.00	0.00	0.00	114.09
Off- mudding of pond	100.00	253.45	0.00	0.00	0.00	0.00	0.00	0.00
Gov. reg. 354/2001	100.00	253.45	0.00	0.00	0.00	0.00	0.00	0.00
Gov. reg. 154/2000	100.00	0.00	0.00	544.44	0.00	0.00	0.00	165.17
<b>Total subsidy volume</b>	<b>100.00</b>	<b>86.86</b>	<b>107.33</b>	<b>96.09</b>	<b>96.75</b>	<b>140.76</b>	<b>110.54</b>	<b>108.57</b>

Source: Farm investigation in 2001 (147 farms, of it 3 farms without subsidies)

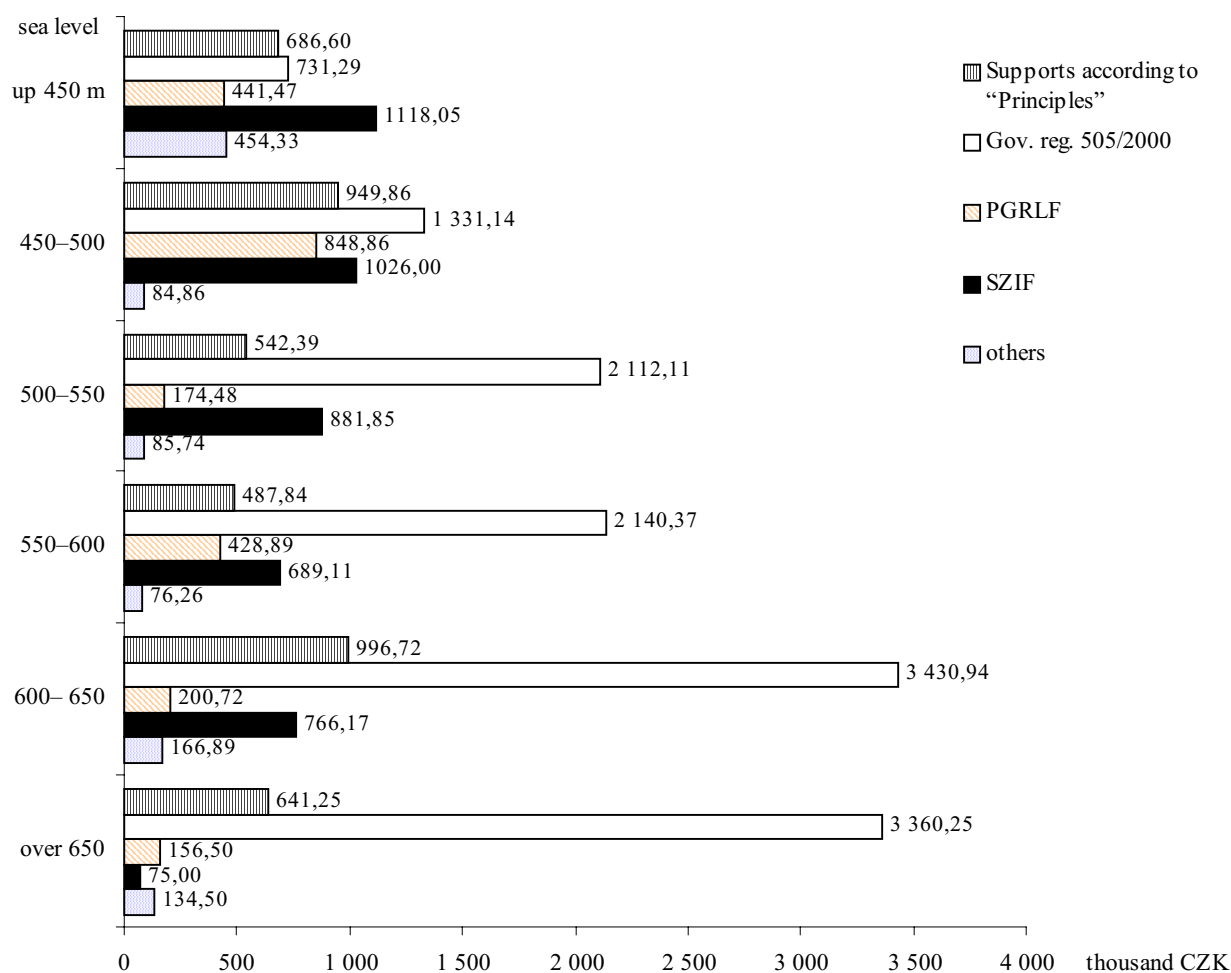


Figure 6. Subsidies in an average farm in the year 2001 according to sea level

## CONCLUSION

As being said before, agriculture in the Czech Republic can be mainly characterized as the submountain and mountain type. In these areas it is necessary to support first of all extensive agricultural production connected with landscape maintenance, rural area development and country settlement maintenance.

In farms in the unfavourable regions, a quite evident tendency of a growth in economic result can be noticed, which was certain effected first of all by the subsidiary state policy in last years. The farms in the zone up to 450 m above sea level have a more expressive fluctuation of the economic result volume than the farms in the marginal areas as well as quicker growth of the subsidy volume. The intensive way of farming in these areas is probably more influenced by price fluctuation and climatic extremes than in the marginal areas. The growth in economic result in the marginal areas is slower as well as the growth in subsidy volume. However as the subsidy title

analysis shows, above all the extensive way of farming, job opportunities and landscape maintenance have been supported.

From these reasons we can state, that supporting and subsidy state policy is well-founded, its meaning is evident and for the development of agriculture in the Czech Republic and its competitiveness advantage absolutely fundamental.

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