



SOCIAL AND ECONOMIC ASSUMPTIONS OF EMPLOYMENT INCREASE IN FRUIT AND VEGETABLE SECTOR OF SLOVAKIA

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Situation in the fruit and vegetable market of Slovakia

Total production area of vegetables declined by 35.3 % and production by 54.1 % compared to 1999

Area of bearing orchards decreased by 10.3 % and fruit production fell by 60.4 %

Production value of fresh vegetables expressed in basic prices reached 132.1 millions EUR in 2011 that is 6.1 % of total agricultural output

Domestic vegetable production (around 320 000 tons) do not cover demand . 17 % of fresh vegetables and 30 % of food products made from or contained vegetables are imported

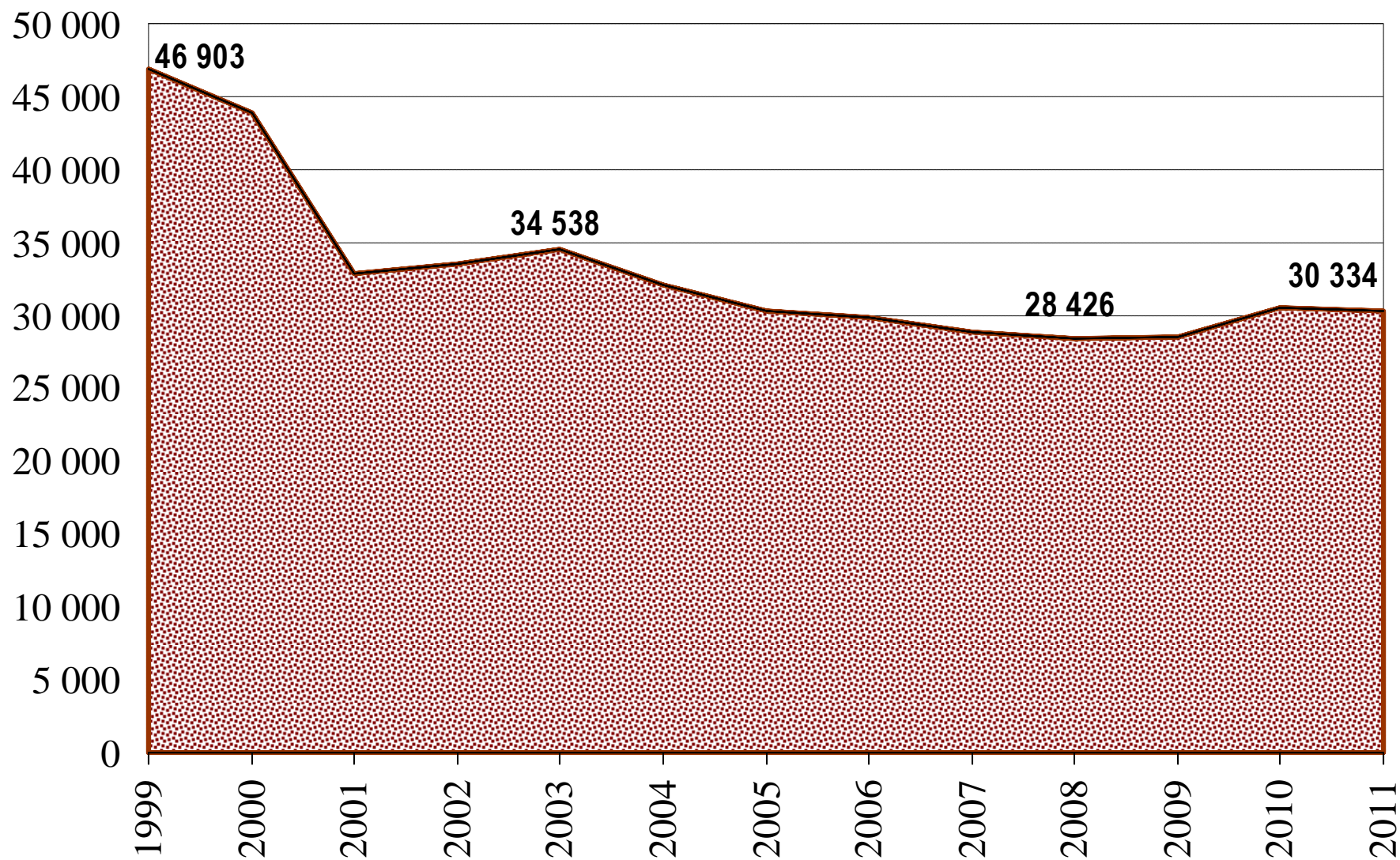
Situation in the fruit and vegetable market of Slovakia

Production value of fruits expressed in basic prices reached 46.5 millions EUR in 2011 that is 2.1 % of total agricultural output (before EU-Accession ratio represented 3.3 %)

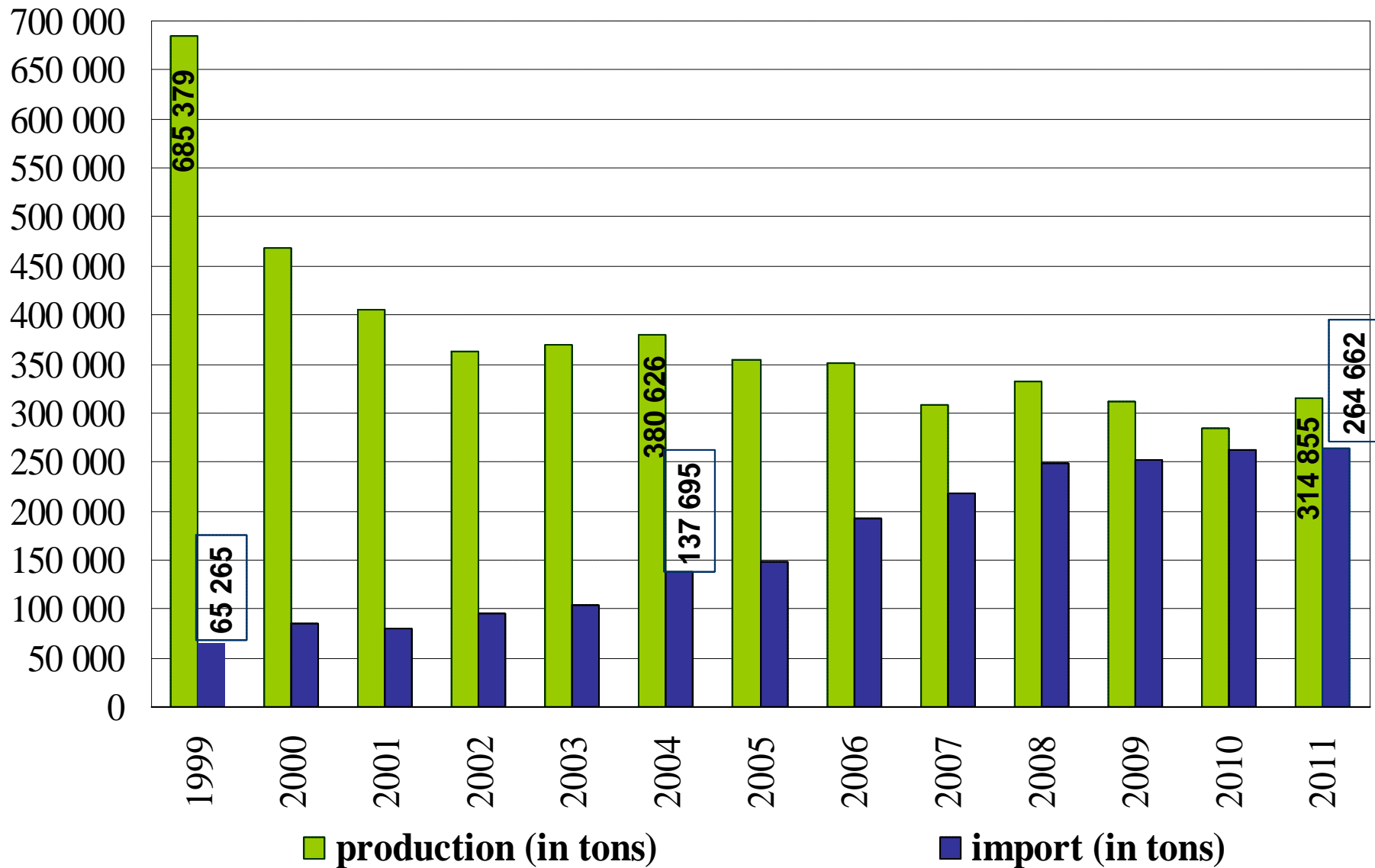
Domestic fruit production (around 60 000 tons) do not cover demand at all . 48 % of fresh fruits of mild continental climate are imported

Import of fruits&vegetables and derived products on Slovak market is in reality higher as small importers do not prove imported volume up to 200 thousand EUR of the customs value in given fiscal year

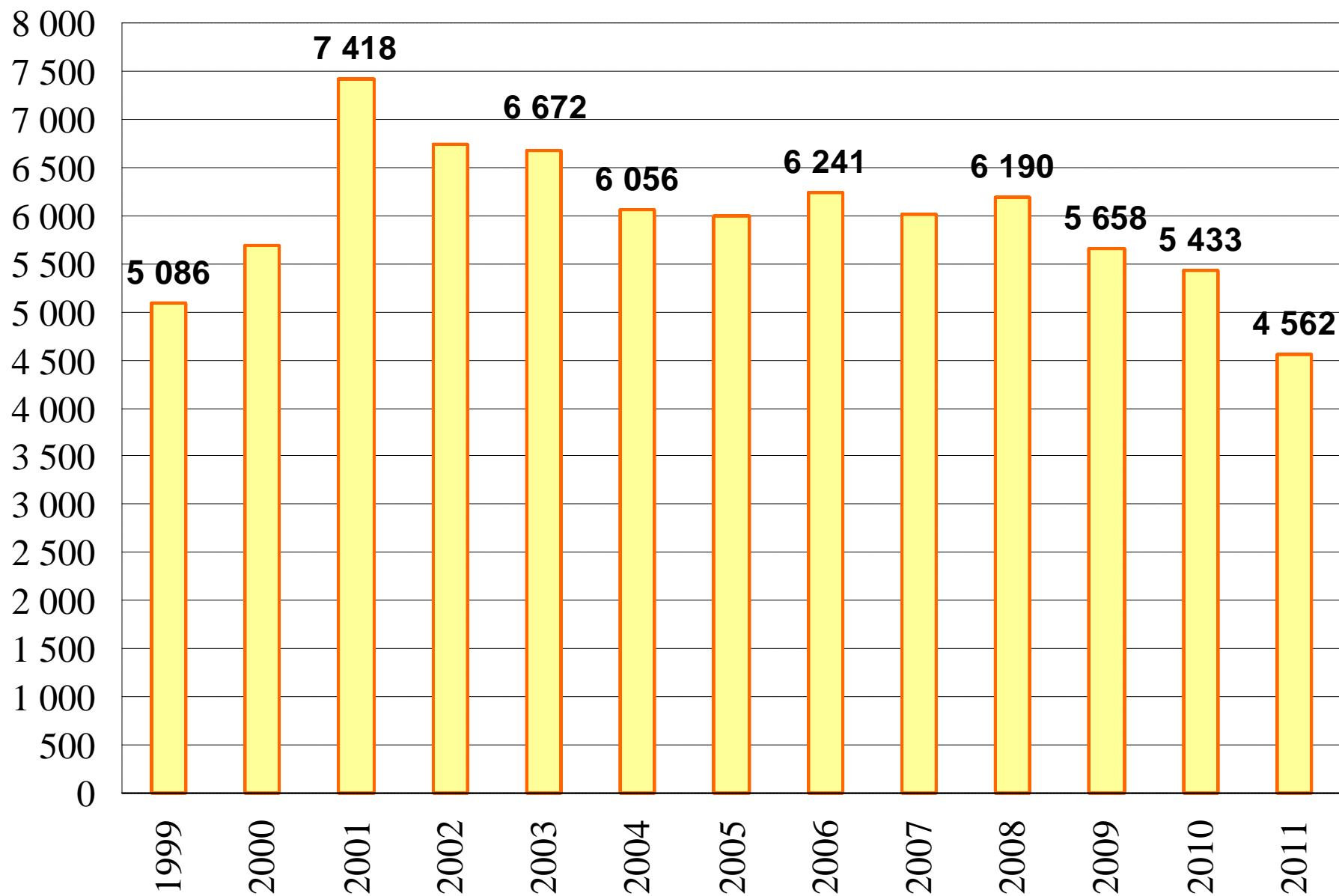
Production area of vegetables including subsistence farming in Slovakia (hectares)



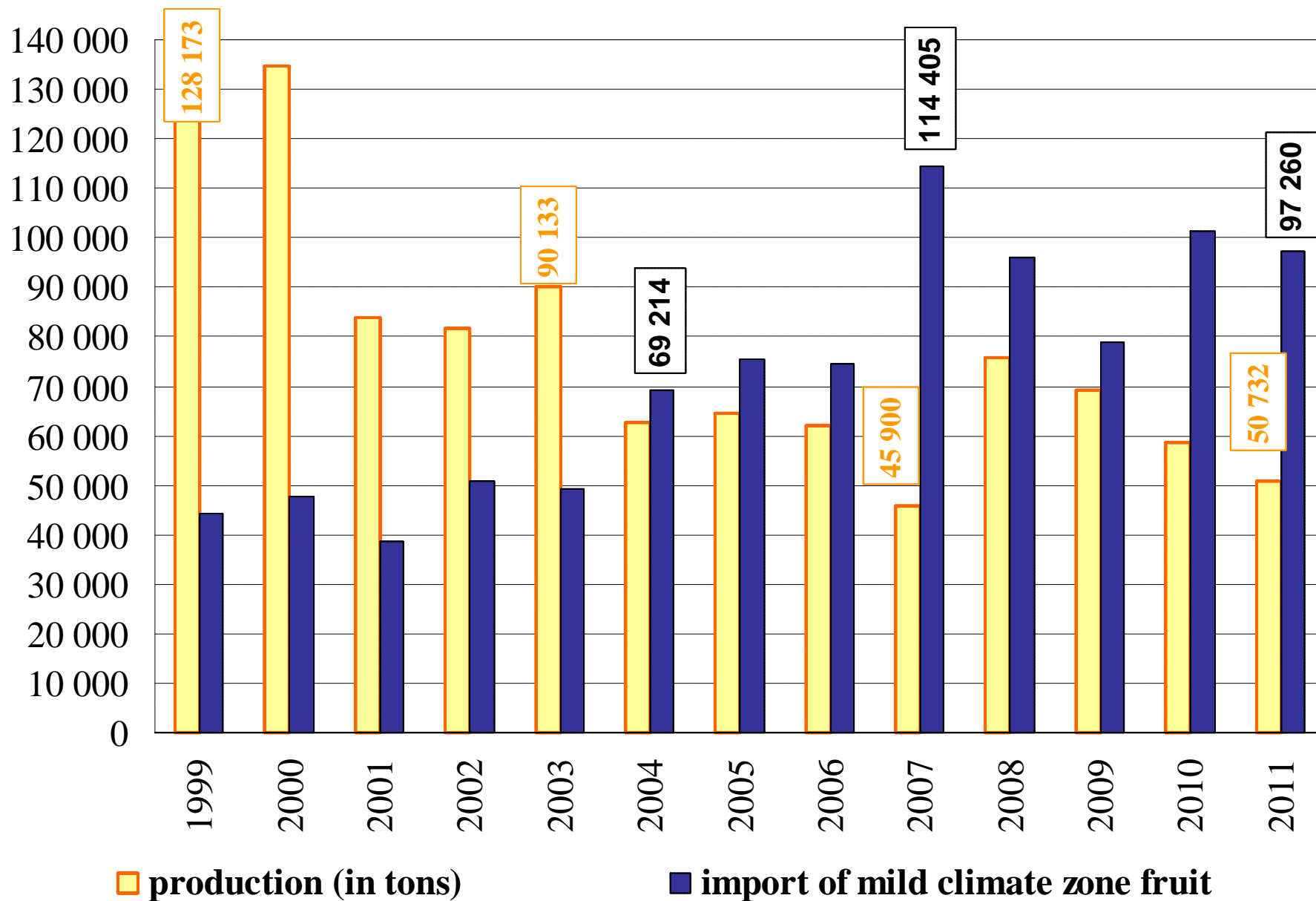
Production of vegetables including subsistence farming and import of vegetables to Slovakia



Area of productive bearing orchards in Slovakia (hectares)



Fresh fruit production and import to Slovakia



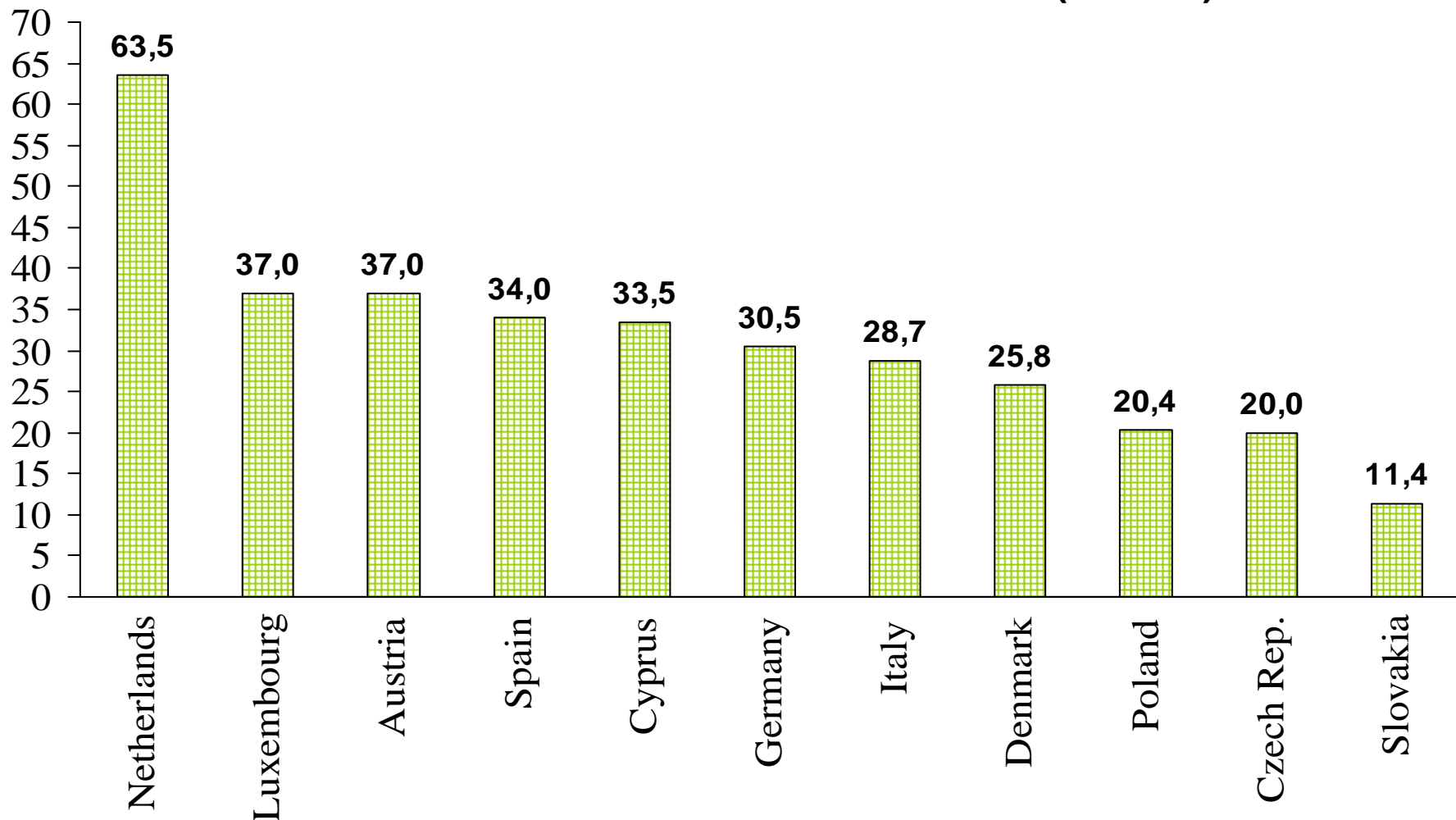
Share of vegetable and fruit products produced by domestic food industry in retail chain of Slovak Republic

Food category	2008	2009	2010	2011
Compotes	8,85	10,08	13,20	13,76
Tomato purée and ketchup	46,72	35,40	27,90	28,25
Jams, jellies and marmalades	23,42	21,16	29,45	15,66
Canned vegetables (except cucumbers)	25,00	18,66	30,14	11,27
Pickled cucumbers	35,65	40,34	31,55	39,24
Sour cabbage	92,25	91,43	84,56	78,80

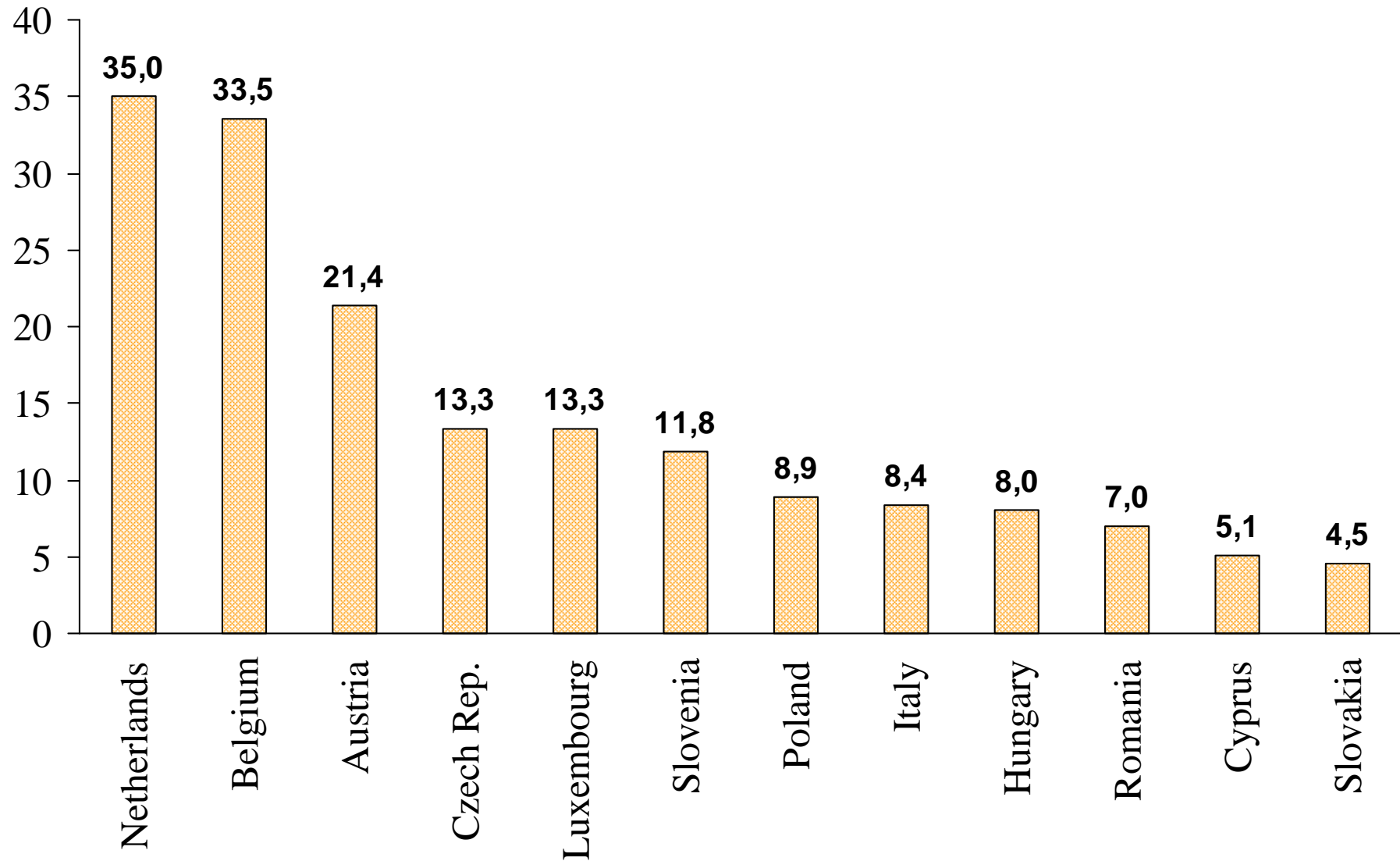
Causes of fruit and vegetable production decline in the Slovak Republic

Lower productivity and profitability compared to foreign competitors

Average yield of vegetables per hectare in Slovak Republic and in selected EU countries in 2010 (in tons)



Average yield of fruits per hectare in Slovak Republic and in selected EU countries in 2010 (in tons)



Reasons of growing fruits and vegetables import

- “ Production decline
- “ A large amount of fruits and vegetables are imported at Slovak market
- “ Country has a good climate and soil conditions as well as knowledge and production potential
- “ Insufficient preparation to EU integration and to new socio-economic changes
- “ Weakening process of domestic production base resulted in rising import and prices
- “ Lower reliability to ensure large vegetable deliveries of equal quality for retail sector during whole marketing year
- “ Growing import of varieties resistant to spoiling, drying, rotting etc.
- “ Existence of few producer groups in vegetable sector
- “ Weaker bargaining power of domestic growers towards large food processors and retail chains

Causes of fruit and vegetable production decline in the Slovak Republic

Instability of plant breeding and cultivars

Low rate of research/development results application into practice

Significant financial deficiency in investment needs (drip irrigation systems, bird nets)

High energy-intensity and labour intensity of production

Higher farm gate prices compared to large foreign competitors

Lower support of growers compared to farmers in old EU Member States (unequal competition)

Limited assortment of planted vegetable varieties (just 9 comprise more than 80 % of the supply although it was tested and assessed as suitable for growing more than 50 types of vegetable)

- Diminish of domestic vegetable/fruit processors
- Raising of land tax

Causes of fruit production decline in Slovakia

Growing trend of extensive orchards and abandonment of orchards due to lower level of agricultural technique compared to other vegetable production (failing in site selection of potential orchard)

- Current situation and cultivation level is unsatisfying except some specialised enterprises
- Constantly rising input prices (input costs rose by 40 % in last decade, but farm gate prices just by 25 %; 6 companies control almost 75 % of agricultural chemicals market)
- Low consumption due to high prices
- Complicated access to bank loans (high initial costs, range from 12 to 50 thousand EUR per hectare)
- Climate changes (weather fluctuations, occurrence of natural disasters – hailstorm, windstorm, flooding)
- Non-existent capital connection of growers and processors
- Need of private quality standards and certifications
- Contrary to the past very strict European regulations demanding new biomaterials with different parameters and new cultivars with higher resistance against climate changes, with better visual and taste properties (on the other hand they can increase competitiveness)
- Weak promotion

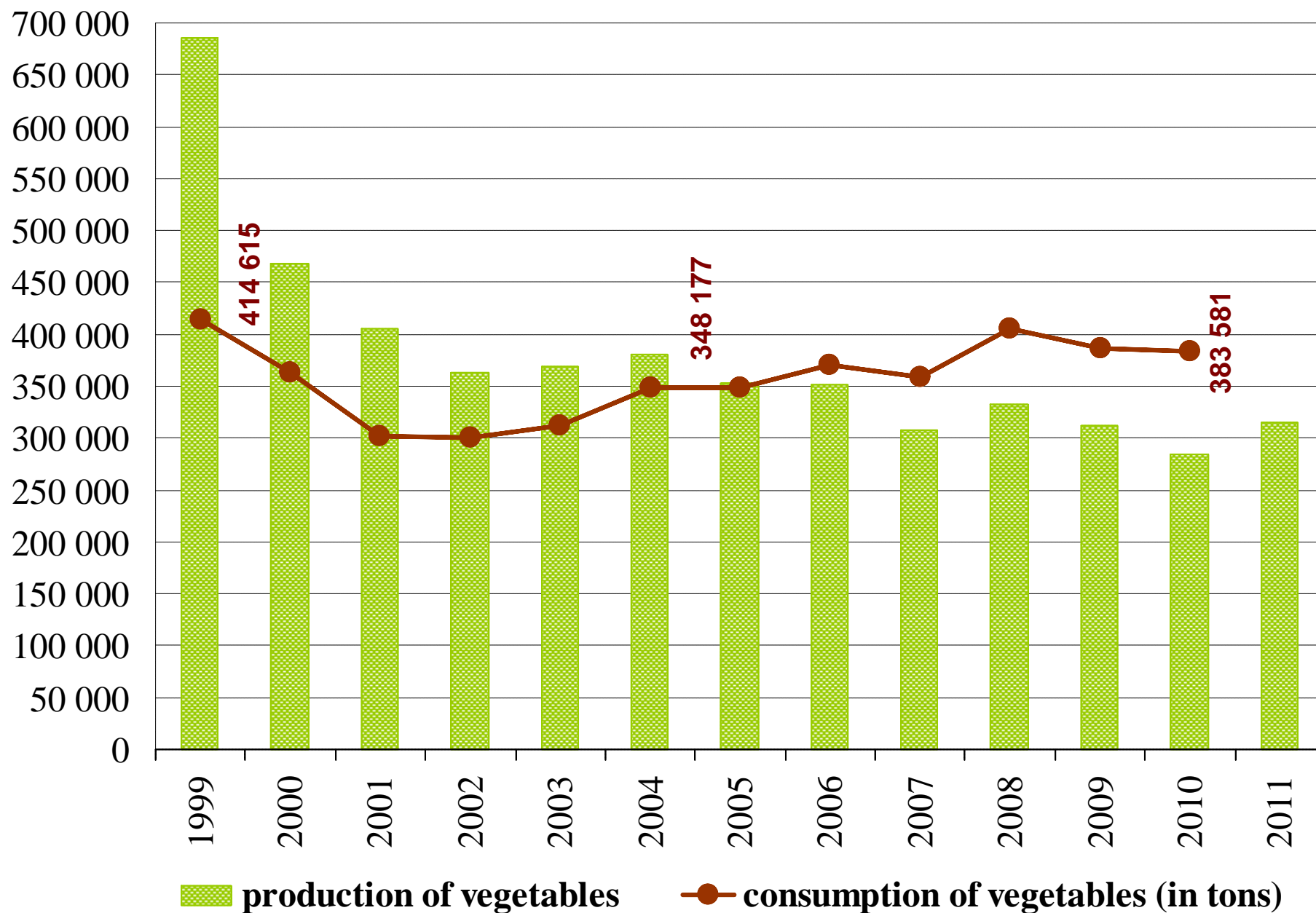
Number of fruit growing agricultural enterprises

Country	2007	2010	Change
Poland	416 660	247 640	- 40.6
Spain	247 130	192 650	- 22.0
Italy	245 950	236 240	- 3.9
Lithuania	120 980	92 290	- 23.7
Greece	112 110	84 720	- 24.4
Hungary	91 520	97 040	+ 6.0
Portugal	71 680	78 650	+ 9.7
Bulgaria	54 310	42 830	- 21.1
Czech Republic	3 240	1 710	- 47.2
Slovakia	1 630	810	- 50.3

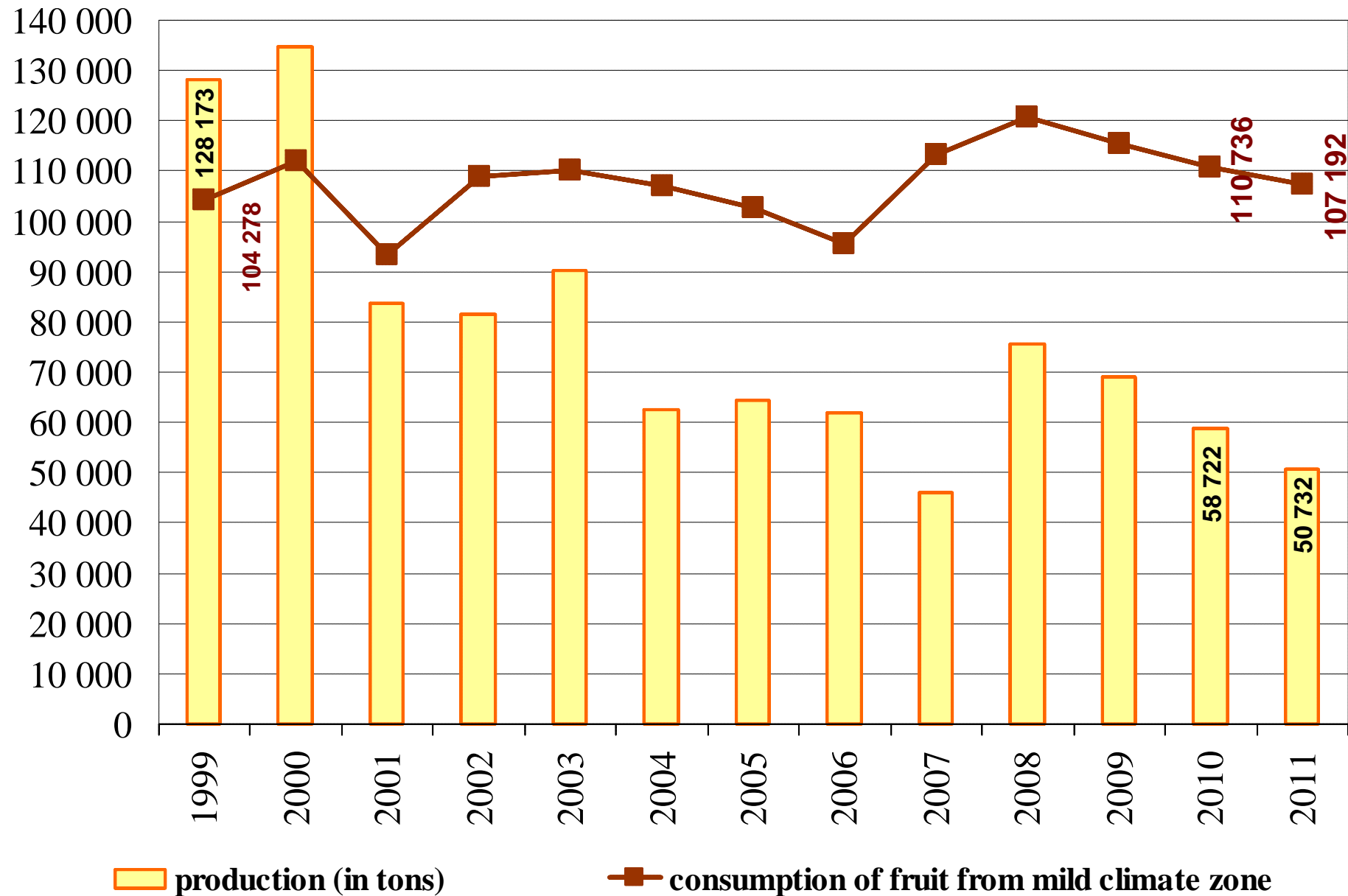
Number of agricultural enterprises growing vegetables, melons
and strawberries (Source: Eurostat)

Country	2007	2010	Change
Hungary	25 680	31 930	+ 24.3
Poland	206 770	140 270	- 65.5
Germany	17 080	14 330	- 16.1
Netherlands	9 260	8 290	- 10.5
Spain	134 140	105 900	- 21.1
France	38 210	39 120	+ 2.4
Italy	140 330	111 680	- 20.4
Czech Republic	2 270	920	- 59.5
Austria	4 310	3 730	- 13.5
Slovakia	5 610	1 510	- 73.1

Production and consumption of fresh vegetables in Slovakia



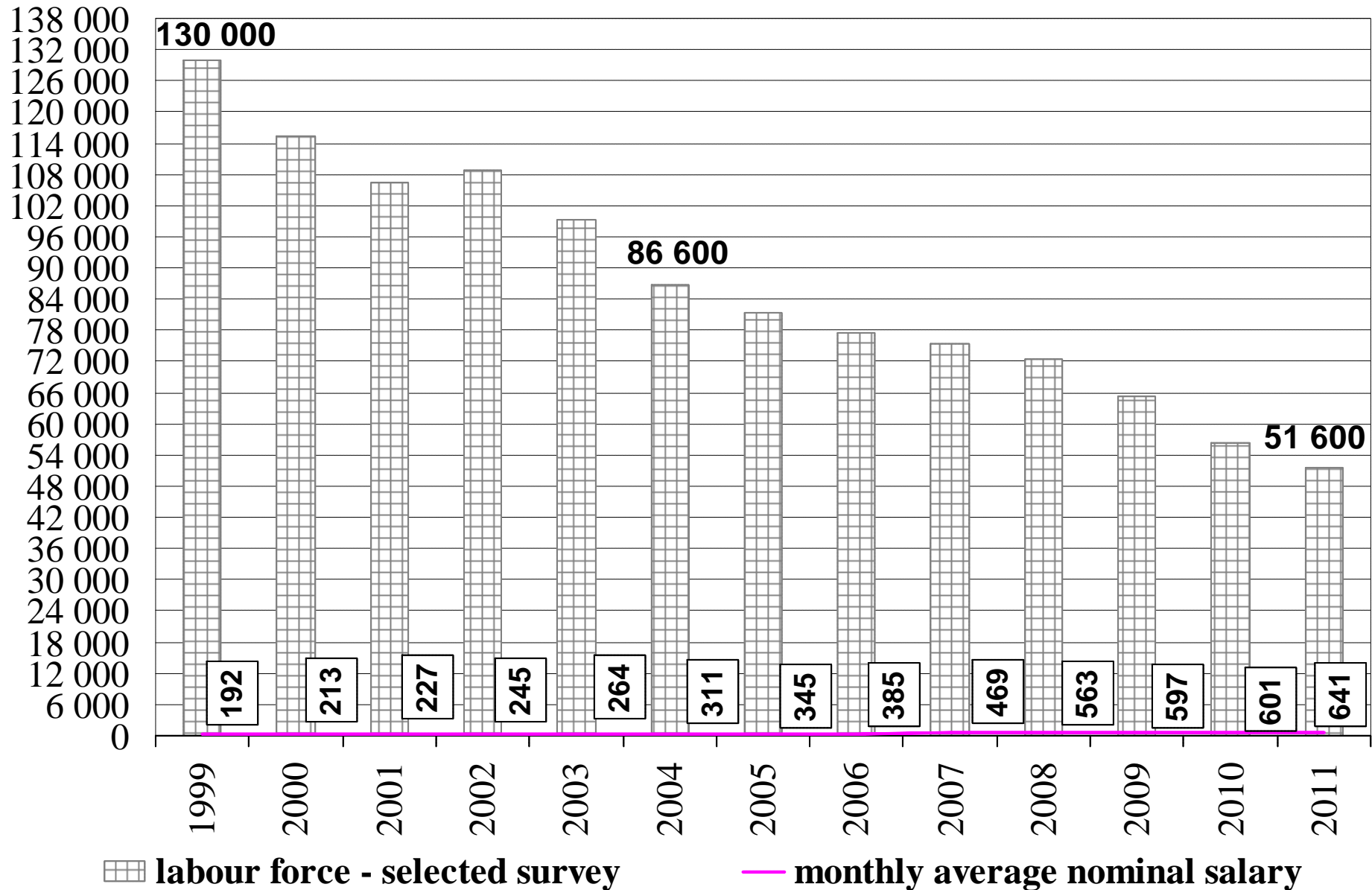
Production and consumption of fruits in Slovakia



Reasons of labour force decrease in vegetable and fruit sectors

- Reduction of agricultural production
- Transition to semi-intensive method of crops cultivation
- Substitution of manpower by efficient agricultural technology
- Disinterest of employers for low-skilled workers
- Loss of work motivation of some people
- Low average earnings in agriculture compared to national economy
- Problems on labour market (low mobility, undeveloped real estate market, high transport costs)
- Majority of landowners is 2nd and 3rd generation of farmers' descendants who have no attitude towards agricultural land
- A lot of people lost agricultural skills or they are old

Number of employees in Slovak agriculture and average salary



Calculations of labour force opportunities

To cover fresh vegetable consumption Slovakia needs to produce additionally approx. 70 000 tons per annum.

Considering average yield per hectare 11 tons it is necessary to seed at least 6 400 hectares more.

It is calculated with the need for employment of one worker per 2,3 hectares of vegetables, which could create 2 700 jobs.

Slovak Republic has currently available 812 GWh of thermal energy from geothermal wells, which would be able year-round heated 97,4 hectares of covered areas .

According to existing projects of greenhouse management the need of manpower per 1 ha of area ranges from 7 to 10 employees in permanent employment and at the time of the harvest is needed another 6-7 seasonal voluntaries. Therefore it could be employed 974 permanent workers and 681 seasonal workers.

Calculations of labour force opportunities

According to Union of fruit growers for coverage of fruit consumption by domestic production would be ideal to achieve larger fruit harvest by at least 50 000 tons.

Considering average yield per hectare 4 tons it is needed to plant 12 500 ha of orchards. Extension of planting would create about 5 400 new jobs.

Total employees in permanent job positions:

vegetable production 3 674 workers

fruit production 5 400

Sum **9 074**

Proposals to increase of fruit production in the Slovak Republic

- to promote the development of pomology by real estate tax relief and producer income tax at the beginning of fruit producing
- to orient of fruit production into optimal areas, where it is at least 15 % cheaper with the assumption of better finalization on the market
- to create conditions for obtaining of bank credits to restore of orchards, planting of new varieties
- to support interest associations of capital linking of fruit growers, processors, merchants and financial capital. To integrate to such linking of insurance type institution and thereby reduce the risk of year variability
- to build an information network for growers (including gardeners) in order to provide actual information on supply, demand and prices
- to establish centers for technological and advisory work in fruit production in individual regions
- form nutrition habits of population by mass media
- reasses educational focus of technical schools
- solve financing of research and fruit breeding
- increase assortment of growing cultivars

Thank you for your attention

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