

# **Analysis of the main factors influencing the pigs – pork meat commodity chain development in Slovakia, Czech Republic and Denmark**

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## **Abstract**

Pig breeding is in this time in Denmark very successful, competitive and effective working branch of agricultural production that comes up to the top indicators in many fields. Farmers in Denmark produce at relative low costs also thanks to co-operation in the whole pigs – pork meat commodity chain. The strongest points of danish pig breeding and its processing are, except others, exemplary like magic working principles of coordination and integration, or effective information transfer among all commodity chain stages which are noticeably missing in this branch in Slovak and Czech Republic. Obsolete technologies and buildings, a lack of necessary information for practice, no working or lack of sales marketing organizations, business chains aggressive behaviour, employees knowledges, their labour productivity, or wage conditions are another factors which are negative influencing pigs – pork meat commodity chain development in Slovak Republic and Czech Republic.

## **Key words:**

Slovak Republic, Czech Republic, Denmark, pigs - pork meat commodity chain, positive factors, negative factors

## **Introduction**

The pig breeding development in Slovak and Czech Republic is in this period conditioned by increase of reproductive parameters efficiency, decrease of death loss of sows and piglets and advantages of livestock high concentration utilization. The requirement is to utilize sufficient base of cereals in suitable prices. To fulfill this precondition will be very difficult, because cereal prices and also feeding mixtures increased severalfold. Without coming up with these preconditions it is not possible to reach branch competitiveness within European or central European space. The conception proposal for Slovak Republic to 2013 requires the demand for pork meat import, the consumption of pork meat is predicted to be 39 kg/pers. and year in 2013. Predicted self-sufficiency rate will oscillate between 76,24% – 80,34%. To come up the conception goals would help noticeably:

- developing of operating technological facilities with the aim of production intensification,
- food safety residence and quality and healthy raw materials production residence,
- promotion of damage compensation which are caused by dangerous contagion (like pig pestilence), promotion of fairs and exhibitions organizing, pig breeders results presentations, promotion and exploiting of livestock genetic material,

- developing of newest information transfer from scientific research base to pig breeders with the aim of their application in praxis, developing of slaughter pig sales by breeders organizing in Sales/marketing organizations,
- creation of condition for pig breeding development supporting in Slovakia from the national or EU resources,
- promotion and advertising of pork meat consumption produced at home farms.

## **Material studied, area descriptions, methods, techniques**

The aim of the paper is to compare three countries from European Union in the field of pigs – pork meat commodity chain. It means to compare the situation within EU (Slovakia, Czech Republic and Denmark) and to contribute to deeper knowledge of the significant factors which influence demand relations within partial markets of this commodity vertical chain. We have chosen three EU member states. Slovakia and Czech Republic are quite new member states and belongs to middle-east European countries. Denmark is strong position old EU member state with the long pig breeding tradition. If we take an area or number of inhabitants, Denmark and Slovakia are very similar countries. Czech Republic is our adjoining country. The methods we used in the paper are methods of comparison, induction and deduction.

## **Results and Discussion**

### **1. Factors influencing the pig breeding in Slovakia and Czech Republic**

#### **1.1 Factors which influence the pig breeding in Slovakia and Czech Republic in the positive way**

##### *Low wage costs*

One of the potential sources of competitiveness of slovak and czech pig breedings are low wage costs. This is not an absolute advantage for all czech and slovak breeding enterprises. Modern technologies are missing in lot of these enterprises and it is necessary to employ more people. If the enterprise has already new technology it means lower wage costs, economy of scales is the advantage for it.

##### *Genetisc and Reproduction*

Another pig breeding strongpoints in Czech Republic and Slovakia are good results in the field of genetics. Together with longlasting tradition in the pig breeding field there exists tradition in reproducing in both of countries.

##### *Tradition and geographical area*

Both in Czech Republic and Slovakia there is longlasting tradition in pig breeding and also pork meat production and consumption too. Slovak and czech kitchen and tradion meals play also a very important role. These two countries location in the middle-east Europe is optimal in relation to european pork meat market. This advantage could be utilized.

#### **1.2 Factors which influence the pig breeding in Slovakia and Czech Republic in the negative way**

##### *Low development of integration and unstable producer prices*

There is missing a narrov interconnection of producers and processing industry relations in Slovakia and also in Czech Republic, which would mean stable possition in business. As well as there is not any form of cooperation among farmars (agricultural producers), processers and marketers. As it is for example in the west Europe countries. As a result there are worse

negotiating conditions between pig producers and processors. In fact they are standing here opposite to each other. Farmers are producing pigs for slaughtering with not low costs, they have to sell them, because of their continual process of production. They want to gain a profit naturally. On the other side, there are processors whose negotiating position is stronger and they are setting unit price for buying pigs for slaughtering and they do not care about producers costs, profit or loss. The same position which processors prepare for producers, chain stores prepare for processors. Retailers and also some processing enterprises are looking for some suitable suppliers – from home country or foreign ones that can set lower price for pigs or pork meat. Low offer price is very big advantage for each supplier. Producers position in vertical commodity chain is in Slovakia and also Czech Republic very weak in this time because their production costs disallow them to set very low price – it is destroying them. Producers marketing organizations should be very good segment in pigs – pork meat commodity chain to help producers establish stronger position on market.

#### *Lack of information*

This problem goes from low development of integration in Slovakia and also Czech Republic. There are no information about price setting in commodity chain. Producers have not important and necessary information about their products demand development – pigs. Also long-lasting contracts are missing in this sector. Vertical coordination and integration is so important also for information transfer within whole vertical commodity chain. The situation in this pigs – pork meat commodity chain is unstable.

#### *Old Technologies and buildings*

Used Technologies in production process are influencing production results. In general, big and strong enterprises both in Slovakia and Czech Republic are using modern Technologies and advisable buildings in production process. These enterprises invested big amount of money into modern Technologies and equipments to minimize human labour. They have mostly foreign capital and follow modern trends. In smaller enterprises with lack of capital there are often older Technologies and old buildings. It means higher production costs, more employees and worse welfare for animals.

#### *Qualified structure of employees and labour force productivity*

Although qualified structure of employees in agriculture is increasing in last few years, in comparison with other national economy sectors in Slovakia and also Czech Republic is still very low. This fact and also labour forces productivity has a negative impact on pig breeding sector results. Since 1989 agriculture has been considered as a low attractive place to work at. This is one of the reasons of unhappy employment situation in this sector.

#### *International business*

Balance of trade of Slovak and also Czech Republic is in negative values for a long time, import into these countries is much more higher than export. Both countries are not exporting ones and their self-sufficiency has decreasing trend. Import is expected to be increasing. Pork meat from Slovak and Czech farms is high quality, but especially chain stores and also some processors are looking for cheaper – imported pork meat from abroad. To gain a higher profit.

#### *Chain stores behaviour*

Multinational chain stores represent a big problem in the whole pigs – pork meat vertical commodity chain in Slovakia and Czech Republic. They dispose of the big negotiating power. The problem is their stores food service with cheaper pork meat mostly from abroad and not pork meat from home pig breedings and slaughter-houses. Slovak and Czech farmers and processors deals with problem, what to do with their production.

Significant is the fact, that there is more negative factors influencing slovak and czech pig breedings than that possitive ones.

## **2.Factors influencing the pig breeding in Denmark**

### **2.1 Factors which influence the pig breeding in Denmark in the possitive way**

Denmark is one of the most popular pig breeding countries not only in Europe, but all over the world. The whole commodity chain – pig breeding, its production, processing industry and marketing is evaluated as one of the most succesfull absolutely. Danish pig breeders produce about 25 milion pigs a year and more than 85% is for export all over the world.

There is a big potential in danish pig breeding sector which goes from many factors which are missing in this sector in many countries like Slovakia and Czech republic. Pig breeding belongs to the most important sectors not only in danish agriculture, but whole Denmark economy.

Following factors are considered as strongpoints of this sector and belongs to the most important.

#### *Cooperation and Integration*

Cooperation of danish farmers and principles of vertical and horizontal integration working without any problems are the biggest advantages for this sector in Denmark. Danish farmars achieve high profits, their products are competitive and exported all over the world. Farmars own also the slaughter-houses. Pigs are sold on the base of longterm contracts and the profit is splitted among all owners – farmars.

#### *Highly qualified labour force*

In danish pigs – pork meat commodity chain there is a big advantage – qualified labour forces. Employees are highly educated and education still continues during their job. Danish government supports different programs, where farmars should improve their knowledge, are educated, getting new information and so on. Afterwards these employees implement news and also new Technologies and methods into operation. So they can achieve better results within this commodity chain. Inexpertness could be dangerous and leads to quality of final products imperilment. That is why in Denmark employees aducation is very important and also supported.

#### *Effective information transfer*

Within the whole pigs – pork meat commodity chain in Denmark, there is very effective transfer of information what is very important for each subject in this chain and also for the whole sector. Actual information get at the right place in time and that is why they can be used correctly. It is very dynamic proces which can help to satisfy needs and wants on this commodity market.

#### *Strict observance of veterinar standards, food safety and high quality of production*

The top priority in pigs – pork meat commodity chain are healthy pig breedings in Denmark. Veterinary care is very expensive and represents high costs there. But healthy breedings and quality products are necessary for longterm contracts and important for export.

Food safety is in Danmark one of the best all over the world. There is a long tradition where all subjects in this commodity chain – farmars, slaughter-houses and ither processing companies and also officies and chain stores are parts of the functional system with extensive docummentation. There is also possibility of monitoring and efficient control.

To another factors influencing pigs – pork meat commodity chain in positive way belong:

- Climate conditions
- Geographical area
- Infrastructure system.

## **2.2 Factors which influence the pig breeding in Denmark in the negative way**

### *High wage costs*

Wage costs in pig breeding sector in Denmark belong to the highest within the whole European Union. That is why this factor is perceived as a disadvantage. But high input prices are compensated by higher labour force productivity – less employees is necessary to employ in this sector in Denmark.

### *High interest rate*

This factor – high interest rate – is influencing the input prices in negative way. Borrowed capital is provided more expensive than it is in many other EU countries. It may lead to delay new Technologies buying or buildings modernizing.

### *Japan market*

This pigs and pork meat market in Asia represents a threat for danish pork meat producers. Japan market is for them the third largest and the most important importer of pork meat from Denmark. They supply japan market with pigs or pork meat as a crude for processing industry there and japanese consumers do not know about danish pork meat, its labels, quality. If some other country will import cheaper crude to Japan, danish position on this Asian market should be threatened.

## **Conclusion**

### **How to deal with the problems in pigs – pork meat commodity chain in Slovakia and Czech Republic?**

If these two countries would like to achieve better result in pig breeding sector, they should:

- Reach competitiveness (if their production fulfil requirements in the field of utility and economics of production – high quality of pork meat)
- Enlarge and locate pig breedings in ecological agriculture
- Ensure a welfare for animals and achieve higher utility
- Cooperate with other farmers, pig producers, processors and another subjects in pigs-pork meat commodity chain and establish producers sales marketing organizations
- Make use of modern Technologies and buildings
- Make use of advertisement and promotion for slovak (or czech) products and appeal on its quality
- Take danish model of vertical integration in pig breeding sector as a example how to do it well
- Adopt important principles used in this sector in Denmark and implement them for our conditions in Slovakia or Czech Republic.

### **How to carry on with pig breeding in Denmark?**

Farmers in Denmark should enlarge their market share on the existing markets – the most important are EU and Japan along with looking for other markets – new possibilities for export.

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