# **CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE** FACULTY OF ECONOMICS AND MANAGEMENT



# **BACHELOR THESIS**

Analysis of the Czech market with organic products in comparison to the European market

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# **Declaration of Integrity:**

"I declare that I have done this bachelor thesis independently and I list all used sources in the bibliography."

In Prague 28<sup>th</sup> April, 2009

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# Analysis of the Czech market with organic products in comparison to the European market

Analýza českého trhu s bioprodukty v komparaci s evropským trhem

### Summary

The aim of the bachelor thesis is to deliver a complex and understandable knowledge about the issue of organic products on the Czech market and to compare it to the situation on the European market. For that reason the first part of this work contains important theoretical background about organic products such as: definition of organic products, all the significant principles of organic farming, pros and cons of organic products, the legislation related to organic products and organic farming, and the market rules of supply and demand. So, the theoretical part of this work provides a general overview about the conditions of organic products on the market. The practical part is dedicated to analyse the global, the European and the Czech market for organic products, the development of market, the leading countries and the current situation on the market. It emphasises the most demanded organic products, regions in the Czech Republic with organic production and top companies offering organic products. The majority of practical part of this work is my research. The research focuses on several organic products and their prices in different shops and supermarkets in Prague. The data from this research are further analysed and compared. Its findings provide a general picture about the situation on the market. Then the data are compared to the prices of organic products in France and also the cost of living is compared for both countries. Finally, the research as whole can give us the opportunity to compare the real situation on the market for organic products in the Czech Republic with another European country - France, and illustrate us the position of the consumer and his ability to choose and buy an organic product.

## Keywords

Organic product, organic farming, organic production, product range, price level, consumption, biodiversity

### Souhrn

Cílem bakalářské práce je poskytnout komplexní a srozumitelný přehled o problematice bioproduktů na českém trhu a srovnat ji se situací na evropském trhu. První část práce proto obsahuje důležité teoretické informace o bioproduktech: definice bioproduktů, všechny významné principy ekologického zemědělství, pozitiva a negativa bioproduktů, legislativa týkající se bioproduktů a ekologického zemědělství a pravidla trhu, nabídky a poptávky. Tak teoretická část této práce poskytuje obecný náhled na podmínky bioproduktů na trhu. Praktická část se věnuje analýze globálního, evropského a českého trhu s bioprodukty, vývoj tohoto trhu, vedoucí země na tomto trhu a momentální situaci na trhu. Zdůrazňuje, po kterých bioproduktech je největší poptávka, regiony v České republice, kde se bioprodukty vyrábějí a přední společnosti a značky nabízející bioprodukty. Většina praktické části této práce patří mému výzkumu. Tento výzkum se zaměřuje na několik bioproduktů a jejich ceny v různých obchodech a supermarketech v Praze. Hodnoty získané tímto výzkumem jsou dále analyzovány a srovnávány. Potom jsou hodnoty srovnávány s cenami bioproduktů ve Francii, v návaznosti na to jsou porovnávány i životní náklady v obou zemích. Nakonec nám výzkum jako celek může poskytnout možnost srovnat reálnou situaci na trhu s bioprodukty v České Republice a jiné evropské zemi – Francii, a demonstrovat nám tak pozici spotřebitele a jeho možnost si vybrat a koupit bioprodukt.

### Klíčová slova

Bioprodukt, ekologické zemědělství, ekologická produkce, sortiment výrobků, cenová hladina, spotřeba, biodiverzita

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# 1. Introduction

The topic of "The analysis of the Czech market for organic products in comparison to European market" was chosen because of the current trend of increasing demand for organic products. Moreover, the problems facing organic farming, organic products and their place on the market are interesting to me. From my point of view organic farming is a very good alternative to conventional farming these days. We are living in a period with threats of global warming, pollution, problems of health due to modern style of living, etc. The reaction to these problems is a new phenomenon of a healthy life style including healthy nutrition, sports, healthy accommodation, demands for healthy conditions in work and the trend towards getting back to nature. These features create better conditions for organic products on the market.

Organic products are becoming more and more popular, so the market for organic products is of higher importance. In our neighbouring countries organic products have already an important place in the market. Also big companies have to conform to this trend and have to come up with new products to satisfy their customers and attract some new. A lot of new brands are being established.

# 2. Objectives and methodology

The major goal of this work is to gather information about organic products and the conditions of production, positioning on the market, selling and delivering to customers. Then I would like to analyse the current situation on the Czech market with organic products and compare it with other European countries. In the practical part I will choose several products of organic farming and I will make a research about prices in several shops and supermarkets in Prague. The aim of this research is to make a deeper analysis of the price level of organic products and to prove the hypothesis that the reason why the majority of people in the Czech Republic do not regularly buy organic products is their higher price. In this practical part there will be a further comparison of the situation on the Czech market with the situation in France. I have chosen France for my personal relationship to this country, I spent 10 months as an Erasmus student, so I also have some general overview about the

market with organic products and I can speak French that is why it is easier for me to find the required data.

The final goal of this work is to make a conclusion from all the information I have gathered and I have analysed. All the data and analysis should lead to predictions for the future of the market in organic products and of its place during the period of the global financial crisis.

# Methodology

In this work a lot of different approaches and methods are used for better understanding, concrete form and clear final conclusion. Among the methods of the highest importance is the method of gathering data from specialized books related to organic products, experts' reports, internet sources and my own fieldwork. For further work with data is suitable to use the method of synthesis of information to be able to apply it for the purpose of the work and to generalize it to be able to make an opinion or a conclusion. On the other hand the method of analysis of the market for organic products is used where the topic is decomposed into different parts to be able to make a deduction from findings. The practical part of this work is mostly done by the method of analysis of prices of organic products in several different shops and supermarkets, by the method of observation of situation, advice and service in the particular shop. The method of complex systematic use of various materials is incorporated in the whole work.

For a real and authentic outcome for the practical part I get myself to the position of a customer in the shop or supermarket, so I can better understand and observe how the customer can feel, what is influencing him and what and where is attractive to buy and what service he can get there.

# 3. Literature review

# 3.1. Organic products definition

Organic products are outputs of organic agriculture. In the available sources of information we can find various definitions of organic agriculture. I have just chosen several of them:

"Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved." <sup>1</sup>

This definition is a result of a hard work of the organisation IFOAM (the International Federation of Organic Agricultural Movements). They created the Task Force on the Definition of Organic Agriculture. It was actually defined on the basis of already defined principles of organic agriculture, collection of particular national definitions and grouping of common elements. The definition was recently ratified by the General Assembly in Vignola, Italy June 2008.

Products marked as "organic" are those certified as having been produced through defined organic production methods. In other words, "organic" is a claim on the production process rather than claim on the product itself. Organic agriculture is most known as a method of farming where no synthetic fertilizers and pesticides are used. However, this description does not mention the basis of this form of agriculture, which is the holistic management of the farming system. According to the definition of the Codex Alimentarius, "organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems.

<sup>&</sup>lt;sup>1</sup> IFOAM: Definiton of organic agriculture. [online] [cit. 12-17-2008]: http://www.ifoam.org/growing\_organic/definitions/doa/index.html

This is accomplished by using, where possible, agronomic, biological and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system."  $^2$ 

### Farming principles:

- High quality food production in adequate quantity
- Techniques in compliance with natural systems and cycles on every level, from soil to animals
- Maintaining and increasing of long-term fertility and biological activity of soil
- Crop rotation and technology of cultivation which protects soil erosion
- Pests regulation and inhibition by agro-technical methods, herbicides are not allowed
- Crop protection from insects and pests on the basis of self-regulation of agroecosystems, biological and biotechnical methods. Fungicides and insecticides are not allowed
- Ethical handling of animals, animal welfare
- Respecting local, ecological, climatic and geographical conditions and in consequence of it use appropriate techniques and procedures

### Ecological principles:

- Support of natural biodiversity, protection of environment of rare species and natural geological formations
- Recycling waste of animal or plant origin in a way that nutrients are getting back to the soil which cause decrease of using non-renewable resources
- Minimizing all kinds of possible pollution of soil, water and air, which can upraise during agricultural activities
- Usage of Genetically Modified Crops is not allowed

### Production principles:

• Maximal effort to keep freshness, authenticity and natural nutritional quality of a product

<sup>&</sup>lt;sup>2</sup> FAO: World markets for organic fruit and vegetables, Opportunities for developing countries in the production and export of organic horticultural products, author: International Trade Centre, 2001

- Production which keep natural environment, not damaging it
- Completeness (suitable for healthy nutrition, e.g. wholewheat)
- Forbidden methods: ion transformers, whitening, using synthetic hormones, irradiation, microwave heating, use of colouring, flavouring and sweetening of synthetic origin
- Excluding possibility of contamination or change with conventional product
- Maximal information about components of a product and possibilities to cook it

#### Social principles:

- Good working conditions, work satisfaction and quality of life for farmers and their families
- Development of ecologically responsible production and distribution, with emphasis on local systems
- Strict quality control of whole organic farming production

Agriculture is one of the basic humankind's activities because all people have to nourish themselves every day. History, culture and community values are included in agriculture. The way of handling landscape, soil, water, plants and animals is specific for different cultures. There are several principles that have been summarized and defined according to some common features of organic farming internationally. The Principles of organic agriculture serve to inspire the whole organic movement. Organic agriculture is based on: the principle of health, the principle of ecology, the principle of fairness and the principle of care.

• The principle of health

This principle means that the health of individuals and society cannot be separated from the health of ecosystems. It actually expresses the need to be in balance with our environment to sustain and improve our own health.

• The principle of ecology

This principle states that production has to be based on ecological processes and recycling. Organic farming should fit the ecological balance and the cycles in nature.

#### • The principle of fairness

This principle is characterized by equity, respect and justice among people and in their relationship to other living beings. Fairness should be ensured at all levels and to all parties – farmers, workers, processors, distributors, traders and consumers. The principle also insists that animals should be provided with good conditions of life that suit their psychology, natural behaviour and well-being.

• The principle of care

This principle means that the way of management, development and technology choices in organic agriculture should be in accordance with the health and well-being of current and future generations and the environment.

## **3.2.** Pros and cons of organic products

Organic products as every single product are items on the market and have to face the competition on the market. Currently, there is a strong trend that people are more and more interested about the healthy style of living which is also one of the reasons why organic products are becoming more demanded. The standard of living is rising and people can afford more – some luxury goods, special services and better nutrition, things that were reserved just for a small group of privileged people (situation of the Czech Republic and other post-communist countries).

I can clearly see a lot of advantages of organic products which I have already mentioned in the principles above. These principles are even reinforced by current issues of global warming, concerns about environment and humankind's impact on it.

However, let me introduce you some disadvantages of organic products. The first and the most important disadvantage of organic products is their price. Customers have to see the difference between the price of organic products and the price of conventional products. Often the price is the reason why they decide to buy a conventional product instead of organic one. The second disadvantage is that some people still don't understand clearly what organic

product is. More or less, a lot of people still have a bad image about organic products, they think that it is "just" healthy food or food for vegetarians. Great amount of money have to be spend on marketing and explanation of what organic product really is and what are the benefits of it. The third disadvantage is the availability of organic products to buy. Organic products are not available in all shops. Although organic products have been improving their position in last decades, still you can find them just in some shops, markets, supermarkets or hypermarkets. It means for people who are buying them regularly to seek for them. There are people who have found a shop offering organic products and are going in this specific shop regularly or people who are buying organic products directly from farms. But still it is not possible for everybody to buy organic goods when they want and where they want. The fourth and the last disadvantage, which I was able to find, is the opinion about organic products in comparison to the problem of hunger in developing countries. In conditions of developing countries where satisfaction of basic needs of people is the problem of highest importance, so organic farming can be seen as useless luxury. However, the questions is if these problems in developing countries should be solved by external world or just have to be solved in these countries without external intervention. It is very difficult to say and then the issue of organic farming is not really relevant to this problem. Nevertheless, this argument has to be taken into account because it is influencing the image of organic products.

#### Summary of general pros and cons of organic products

Pros:

- The principle of health
- The principle of ecology
- The principle of fairness
- The principle of care

#### Cons:

- The price of organic products
- The misunderstanding of organic products
- The availability of organic products to buy
- The opinion about organic products in comparison to the problem of hunger in developing countries

# **3.3.** Legislation on organic farming

The newest legislation in the Czech Republic concerning the issue of organic farming is the law about organic agriculture n. 30/2006 which is the modified form of the law n. 242/2000. I will just choose the most important paragraphs of this act concerning my work.

This act is revising conditions of organic farming and related certifying and labeling of organic products, organic foodstuffs and other organic products, and also execution of control and supervision of respect of obligations related to it, in accordance with the directly applicable act of the European Community.

For the precise comprehension and interpretation of the legislation the exact terminology had to be defined - in this act it is understood:

- Organic product as commodity of plant or animal origin or farm animal acquired in organic farming in accordance with acts of the European Community
- Organic foodstuff as foodstuff produced in conditions mentioned in this law and acts of the European Community, fulfilling the requirements of quality and health suitability determined in the special laws
- Other organic products as organic feed or organic reproducing material (seed and planting stock)
- Organic entrepreneur as person which is registered according to the special law
- Person doing entrepreneurship in area of organic farming as organic entrepreneur, producer of organic foodstuff, person distributing organic foodstuff or organic products on the market, producer of distributor of organic feed or distributor of organic reproducing material
- Organic farmer of bees as person which is not organic entrepreneur and is breeding bees in organic farming and is registered in accordance with this act
- Organic farm as closed farming unit including areas, farm building, equipment and possibly also farm animals for organic farming use

Other important regulations:

• Organic entrepreneur must not produce same commodities of plant or animal origin by other farming production methods at the same time as organic farming production. At

organic farm the simultaneous production is prohibited. This statement is not applying to organic farmers of bees.

- In organic farming can be bred just those animal species which are stated by special law.
- Those animal species stated in paragraph 2 can be bred at organic farm just in case of interest breeding which is not the subject of entrepreneurship in organic farming. If breeding of those species of animals is the subject of entrepreneurship, it cannot be part of the organic farm.
- Statements of this act about organic farming are also adequately applied on organic farmer of bees.

Transitional period:

- Transitional period is a period in which agricultural production is transformed into organic agriculture and negative impact of former agricultural activity on agricultural soil, landscape and environment is being erased.
- During the transitional period a person included in the transitional period has same obligations as organic entrepreneur.
- The ministry manages a list of persons in the transitional period, including information about farmed area; this list is available for public.

Restriction of harmful effects on organic farming areas:

In places where organic farming areas border on areas which are not farmed in accordance with organic farming methods, organic entrepreneur has to do appropriate arrangements which will lead to restriction of harmful effects on his organic farming areas; and it should be restricted as much as possible; these arrangements are particularly planting of hedgerows, windbreaks, green belts, isolation grass-plots or establishment of roads.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup>Zákon o ekologickém zemědělství č. 30/2006 Sb.

 $http://portal.gov.cz/wps/portal/_s.155/701/.cmd/ad/.c/313/.ce/10821/.p/8411/_s.155/701?PC_8411_name=0\%20 ekologickém\%20zemědělství \& PC_8411_b=30/2006 \& PC_8411_ps=10\#10821$ 

For further comprehension and specification of legislation related to organic agriculture I will mention some principles and obligations stated in the European Community Regulations which are directly applicable in Czech law or are included in Czech law and other EU countries.

Organic production methods should be based on following principles:

- Design and management of biological processes based on natural resources and sustainable development methods
- Use of living organisms and mechanical production methods
- Using land-related crop cultivation and livestock production which complies with sustainable exploitation of natural resources
- Exclusion of GMOs (Genetically modified organisms) or products produced from or by GMOs
- Restriction of use of external inputs, where these are required, they shall be limited to: inputs from organic production, natural or naturally-derived substances, low solubility mineral fertilisers
- Strict limitation of the use of chemical inputs, this should be used just in exceptional cases: the appropriate management practices do not exist, natural inputs are not available at the market, natural inputs will lead to unacceptable environmental impacts
- The adaptation of the rules of organic production taking account of sanitary status, regional differences in climate and local conditions, stages of development and special husbandry practices
- Organic production should pursue the objective of ensuring fair competition and functioning of internal market in organic products, and of maintaining and justifying consumer confidence in products labelled as organic

Specific principles applicable to farming:

- Maintenance and enhancement of soil fertility and natural soil life, soil stability and soil biodiversity, preventing soil erosion and supporting of primary nourishment of plants from soil ecosystem
- Minimisation of the use of non-renewable resources
- Recycling of waste of plant and animal origin by using it as input in production
- Consideration of the local and regional ecological balance in production decisions

- High level of animal welfare respecting species-specific needs
- Choosing breeds with regard to their ability to adapt to local conditions, their vitality and their resistance to diseases and health problems
- Feeding of livestock with organic feed composed of ingredients from organic farming and other natural substances
- Animal husbandry which enhance the immune system and natural defence against diseases, particularly including regular exercise and access to open air areas and pasturelands
- Maintenance of biodiversity of natural aquatic ecosystems <sup>4</sup>

## **3.4.** Market – supply, demand and price

Economic units can be divided into two basic groups according to their function: buyers and sellers. The group of buyers includes consumers, who purchase goods and services, and companies, which buy labor, capital, and raw materials that they use to produce goods and services. The group of sellers includes companies, which sell their goods and services, workers, who sell their labor services, and resource owners, who rent land or sell mineral resources to companies. Simply, most people and most companies act as both buyers and sellers. Buyers and sellers interact to form market. So, a market is the collection of buyers and sellers that, through their interactions, determine the price of a product.

The market price of good is determined by both the supply and demand for it. Supply is expressed by the relationship between market price and amount of goods produced. Demand represents the amount of goods that buyers are willing and able to purchase at various prices. Changes in demand and supply can be influenced by various factors. These factors can be divided into two groups: controllable and uncontrollable factors. Controllable factors are those that management of the production company has some control over.

<sup>&</sup>lt;sup>4</sup> Council Regulation No. 834/2007

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:189:0001:0023:EN:PDF and Council Regulation No. 2092/91

http://eur-lex.europa.eu/LexUriServ/site/en/consleg/1991/R/01991R2092-20070101-en.pdf

As controllable factors are understood price, promotion, place and product. Uncontrollable factors are: changes in consumer income, changes in price of substitute goods, changes in price of complementary goods, changes in consumer preferences for commodity, changes in promotion expenditure, changes in competitive promotion, expected future changes in price for commodity, expected future changes in consumer income, market population, etc. There is another group of factors called exogenous which can have also influence on sales: weather, strikes, political situation, emergencies, etc.<sup>5</sup>

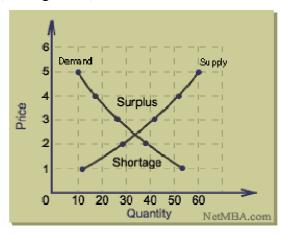


Figure 1: Supply and Demand model, Source: <u>http://www.netmba.com/econ/micro/supply-demand/</u>

Equilibrium is the cross point of the supply and demand curve. This point represents the price that sellers receive for a given quantity supplied, and the price that buyers will pay for a given quantity demanded. There is a tendency in a free market for the price to change until the market clears, until the quantity supplied and quantity demanded are equal (the market mechanism). We can use the supply-demand model just in case of a competitive market, where both buyers and sellers have little market power, little ability to individually affect the market price.<sup>6</sup>

<sup>&</sup>lt;sup>5</sup>Lectures of Business Economics – Demand Analysis and Consumer Behaviour, Author: Ing. Karel Tomšík, Ph.D.

<sup>&</sup>lt;sup>6</sup> Microeconomics, Authors: Pindyck and Rubinfeld, Pearson Education International

# 4. Practical part

# 4.1. Czech market and European market with organic products

In this part of my work I would like to focus on the real situation on European market and Czech market, to see and analyse the position of Czech entrepreneurs on market with organic products, to evaluate the difference in prices of several distributors and compare it with foreign trades.

# 4.1.1. The situation of organic farming worldwide and in the European Union

The interest in healthy living and demand for organic products is currently upraising trend. During several past years the number of organic farms, distributors and shops with organic products is continuously increasing. However, the very recent problem of world financial crisis will influence the demand for organic products. The price of organic products is mostly higher than the price of conventional products, for some people buying of organic product still means kind of "luxury". In case of financial crisis that is predicted to last at least till year 2010, people are supposed to have more limited budget. People will probably tend to buy cheaper things or is it already a habit for some people to buy organic products and they will afford it anyway? It will be quite interesting to observe how the financial crisis will influence the demand. This issue will be clearer after some months.

Generally, in the worldwide scale, almost 30.4 million hectares are used for organic farming on 720 000 organic farms in 2007. The largest areas in the system of organic farms are in Australia, China, Argentine and the USA. The overall worldwide consumption of organic products in 2007 reached 28.5 milliard EUR. The biggest European markets with organic products in Europe are in Germany, then Italy, the United Kingdom and France. The largest share of organic products on whole foodstuff consumption is in Scandinavian countries, Austria and Switzerland. Swiss have also the biggest consumption of organic product per capita and year: 102 EUR.

In Europe in year 2006 were 7.4 million hectares of agricultural land used for organic farming on more than 200 000 farms. The European Union (EU-27) from these numbers

comprised 6.8 million hectares on almost 180 000 farms, this stand for 4 % of agricultural land in the European Union. The biggest improvements of organic farms area from the year 2005 to 2006 were in Spain, Italy, Poland and Portugal. In southern and eastern Europe was relatively important increase, in Croatia and Macedonia the organic farming area doubled. Countries with the biggest number of organic farms and the largest organically farmed lands are Italy, Spain, Germany and the United Kingdom.

### 4.1.2. European market with organic products

In Europe there is the largest and the most developed market with organic products, the turnover for the year 2006 was approximately 15 EUR. Till the year 2005 the largest market with the highest profits in organic farming was in the Northern America. Actually, in Europe the majority of sales of organic products is centralised to Western Europe, dominated by Germany, France, Italy and the United Kingdom. These countries comprise 75% of overall European turnover. Countries with the fastest development of the market with organic products are Germany and the United Kingdom. The fast growth of the German market with organic products is caused partly by main retailers entering this market. Organic foodstuff is becoming common and available in supermarkets, in smaller shops, drugstores and pharmacies. There is a permanent demand in biosupermarkets and bioshops.



Figure 2 : Biosupermarket in Germany, Source - my own photo

For the moment, there are no such biosupermarkets in the Czech Republic. In Germany and in The United Kingdom there is higher demand for organic products than it can be covered with current supply. The greatest expenses for organic products can be seen in Scandinavian countries, Italy, France and Switzerland. In the Eastern Europe the market with organic products is smaller and developing, products are mainly intended for export to the Western Europe. The rapid growth on the market resulted in insufficient supply. In Germany it was a lack of cereals, potatoes, milk, meat and some kinds of vegetables. In Austria it was cereals, potatoes and some kinds of fruits and vegetables. Although the area of organic farmed land covers 13% of agricultural land in Austria.

There is a great difference of ways of distribution channels between individual countries. For example in Sweden the majority of organic foodstuff (90 %) is distributed to customers through the channel of traditional shops and the rest is sold directly from farm. On the other hand, in Italy and France about 40 % of organic foodstuff is sold in conventional shops and supermarkets and about 45 % is sold in specialised shops with healthy nutrition and bioshops. The Czech Republic is somewhere in between, 67.5 % of organic foodstuff is sold in conventional shops and supermarkets, 22.5 % through specialised shops and just 2 % is sold directly from farm. However, it is difficult to derive the connection between a share of organic foodstuff on overall consumption and specific types of sales due to the different conditions in each of the countries.

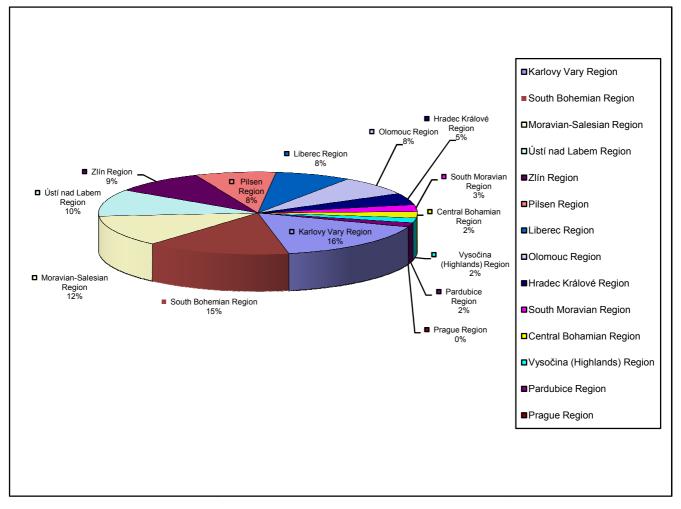
Among the most demanded organic products on the European market are: milk products (milk, butter, yoghourt, cheese, milk drinks, etc.), fruits and vegetable, eggs, bakery products, children's and baby's nutrition, cereals, meat, pasta, rice, oil. The most consumed organic products are generally: milk products, fruits and vegetables, baby's nutrition. This trend can be seen in the Czech Republic and other European countries. It is assumable that it is caused by the fact that consumers can really feel and taste the difference between organic products and conventional products, so they are likely to buy these products. The reason why the baby's nutrition is also on the top is the phenomenon that mothers want to give their babies the healthiest nutrition they can afford.

# 4.2. The situation of organic farming in the Czech Republic, import and export

During several last years organic farming in the Czech Republic has been developing quite significantly. In year 2008 organic farmed land was about 7.84 % of total agricultural

land area (as at 30 June 2008). The number of organic farms increased to a total of 1766 and the number of organic producers to a total of 375 enterprises. This high increase in organic farming was especially due to allowances and grants for organic farmers and producers from the state – the new Rural Development Programme (EAFRD, 2007-2013). Another important cause of the growth of organic farming was improving demand for organic raw materials from the side of big conventional food producers and also the demand from abroad.

Traditionally the mountain and foothill regions are the regions with the greatest representation within organic farming land in the Czech Republic.



### The graph of regions in the Czech Republic by organically farmed area

Figure 3: Source – data from the Yearbook Organic farming in the Czech Republic 2008, the Czech Ministry of Agriculture, 2008

The consumption of organic foodstuff in the Czech Republic reached in 2007 1.29 milliard CZK, which represents an increase of 70 % in comparison to the year 2006. The average consumption per capita in 2007 was 126 CZK; organic foodstuff achieved 0.55 % of total foodstuff consumption. The development of import of organic products in the Czech Republic is year by year increasing. In 2005 import represented 54 % of overall consumption of organic products, in 2006 it was 56 % and in 2007 it was 62 %. I can just speculate what is the reason why import has been increasing during the last years. It can be caused by insufficient supply of Czech organic products, or it is caused by better promotion, placement, attractive packaging or better quality.

Evidently, there are several retail chains which launched massive promotion campaigns advertising their own brands of organic products (mainly foreign products). Retail chains represented in 2007 a share of 67.5 % of the whole organic market. Shops with healthy nutrition and bioshops represented a share of 22.5 % of the whole organic market. Drugstores represented a share of 5 % of the whole organic market, small independent shops about 2.5 %, directly from farms and at open markets 2 % and approximately 0.5 % was sold through gastronomic restaurants.

| 10 top Czech | companies | on the | market | with | organic | products | in 200' | 7 according to | 0 |
|--------------|-----------|--------|--------|------|---------|----------|---------|----------------|---|
| turnover:    |           |        |        |      |         |          |         |                |   |

| 1. Hipp Czech, s.r.o.                    | Import, distribution of children's and               |
|--|--|
|  | baby's nutrition                                     |
| 2. PLUS-DISCOUNT spol. s.r.o.            | Retail chain   |
| 3. PRO-BIO obchodní společnost s.r.o.    | Processing, wholesale, retail and import             |
| 4. Country Life s.r.o.                   | Processing, production, import, wholesale and retail |
| 5. Olma a.s.                             | Production of dairy products                         |
| 6. dm drogerie markt s.r.o.              | Retail chain   |
| 7. Biopark s.r.o.                        | Production of beef                                   |
| 8. SPAR Česká obchodní společnost s.r.o. | Retail chain   |
| 9. Bauer-BIO s.r.o.                      | Import (diary products and meat)                     |
| 10. Bio nebio s.r.o.                     | Import, production and distribution                  |

| Figure | 4 |
|--------|---|
|--------|---|

Some other retail chains offering organic products: Billa, Ahold (Alber, Hypernova), Tesco, Kaufland, Albio, Globus, Penny Market, Coop. Actually, the biggest "shock" at the market with organic products was caused by the retail chain PLUS. In 2007 they came with huge promotion of their own organic products brand Biobio. PLUS profited from its portfolio of products from Germany offering about 50 different products. Other retail chains had to react and also introduce organic products. So, retail chains attracted unusual customers and ordinary customers of those supermarkets and hypermarkets started to buy some organic products. This revolution on the market with organic products concerns mainly imported products and that is also the reason why the share of imported products increased.

## 4.3. State support and grants

State support for organic farming and production of organic food was renewed from 1998 until 2003 and distributed under the Government Order. Between 2004 and 2006 conditions for state support were definite in the Horizontal and Rural Development Plan. The support for organic farming for the period 2007-2013 is based on the Rural Development Programme and Multifunctional Agriculture. Within this programme organic farmers support is implemented through Axis II – Improving the Environment and the Countryside, with specific measures.

Support payments are given per organically farmed land area, there are special rates for different land use.

The rate amounts (for the year 2007):

- Arable land 155 EUR/ha
- Permanent grassland 71 EUR/ha
- Permanent crops 849 EUR/ha
- Vegetables and special herbs 564 EUR/ha

The particular EUR/CZK exchange rate is determined every year. Same amounts of payment are distributed also to organic farmers for their land area in the transitional period. In the year 2006 the total amount of paid funds was 304 995 064 CZK. In the year 2007 farmers applied for more than 540 million, the amount of paid funds was not available.

In April 2008 the Ministry of Agriculture announced the largest campaign promoting organic food. It was also due to the decision of the European Commission to implement

promotion of organic products. During a period of 3 years the Ministry will promote organic food and improve consumers' awareness with the project which costs totally 29 million CZK. For the whole campaign will be responsible well known company Ogilvy. The aim of the project is to increase awareness of organic farming, promotion of positive image of the national and European organic brand. There is a great need to explain to consumers' issues of the impact of consumption behavior, care about environment and differences between conventional agricultural production and organic production.

Communication channels of the campaign:

- Promotion in press
- Billboards
- Road show
- PR activities
- Web site: <u>www.jimebio.cz</u>
- Information telephone line
- Leaflets
- Direct mailing
- Product packages
- Organic day
- Web competition
- Survey



Figure 5: Bio is a life style, source: picture from Bio – zpráva z výzkumu, Ogilvy [online] http://www.mze.cz/Index.aspx?ch=73&typ=2&ids=3346&val=3346

From the research survey of the company leading this project Ogilvy (November 2008) is obvious that the first phase of the campaign actually has some positive impact. Advertising reached some increase of awareness of the targeted group and the campaign is valuated positively in the eyes of public. However, it is the goal for the long run.

# 4.4. Different commodities and their prices

Several researches claim that organic products in the Czech Republic are approximately about 30 to 200 % more expensive than conventional products, in other EU countries it said to be about 20 to 50 %. From surveys and researches it is also obvious that the price is the biggest reason why the majority of consumers still do not buy organic products or buy them rarely. So, this part is dedicated to the basic research at the Czech market with organic products in shops and supermarkets representing a sample of supermarkets, retail chains and specialized shops offering organic products. The research was done just in Prague during the period of February and March 2009.

Commodities in focus:

- 1. Yoghourt (150 g)
- 2. Milk (1 litre)
- 3. Cheese
- 4. Eggs (6 pieces)
- 5. Ham
- 6. Meat
- 7. Bread
- 8. Flour (1 kg)
- 9. Apples
- 10. Tomatoes
- 11. Carrots
- 12. Cucumber
- 13. Potatoes
- 14. Rice
- 15. Pasta



Figure 6: Specialized shop with bio, my own photo

For some of the shops it is very hard to compare the range of products because they have simply different products or sometimes they miss the specific commodity. However, it is also interesting to analyze the range of products, how it is divided from conventional products or even the service and the advice they offer in the shop.

## Albert

| Commodity             | Price, specification                |
|-----------------------|-------------------------------------|
| 1. Yoghourt (150 g)   | 9,90 CZK                            |
| 2. Milk (1 litre)     | 21,90 CZK                           |
| 3. Cheese             | /                                   |
| 4. Eggs (6 pieces)    | /                                   |
| 5. Ham                | 19,90 CZK / 80 g (more like salami) |
| 6. Meat               | /                                   |
| 7. Bread              | /                                   |
| 8. Wheat flour (1 kg) | 23,90 CZK                           |
| 9. Apples             | /                                   |
| 10. Tomatoes          | /                                   |
| 11. Carrots           | /                                   |
| 12. Cucumber          | /                                   |
| 13. Potatoes          | /                                   |
| 14. Rice              | 42,90 CZK / 500 g                   |
| 15. Pasta             | 29,90 / 400 g                       |

Figure 7: table Albert – data from my fieldwork done in February and April 2009

Address: Vinohradská 50, 120 00, PRAHA 2

Empirical research - observation: the range of products not really wide, a special products range – Albert bio, products placed and labeled well, missing fruits and vegetables.

### Billa

| Commodity             | Price, specification             |
|-----------------------|----------------------------------|
| 1. Yoghourt (150 g)   | 9,50 CZK                         |
| 2. Milk (1 litre)     | 24,90 CZK                        |
| 3. Cheese             | 24,90 CZK / 100 g Eidam          |
| 4. Eggs (6 pieces)    | 49,90 CZK                        |
| 5. Ham                | 35,90 CZK / 100 g                |
| 6. Meat               | 119,90 CZK / 1 kg chicken fillet |
| 7. Bread              | /                                |
| 8. Wheat flour (1 kg) | 26,90 CZK                        |
| 9. Apples             | 56,90 CZK / 1 kg                 |
| 10. Tomatoes          | 49,90 CZK / 500g cherry          |
| 11. Carrots           | 44,90 CZK / 750 g                |
| 12. Cucumber          | /                                |
| 13. Potatoes          | 39,90 CZK / 1 kg                 |
| 14. Rice              | 42,90 CZK / 1 kg basmati         |
| 15. Pasta             | 39,90 / 500 g spaghetti          |

Figure 8: table Billa – data from my fieldwork done in February and April 2009

Address: Jugoslávských partyzánů 1580, 160 00, Praha 6 – Dejvice

Empirical research – observation: the range of products wide, no special products range, some products imported from other countries, products placed and labeled well, just the milk products were a bit lost in fridge together with conventional products.

### **Bio Market Vitek**

| Commodity             | Price, specification            |
|-----------------------|---------------------------------|
| 1. Yoghourt (150 g)   | 12,20 CZK                       |
| 2. Milk (1 litre)     | 32,20 CZK                       |
| 3. Cheese             | 32,50 CZK / 100 g Eidam smoked  |
| 4. Eggs (6 pieces)    | 65,90 CZK                       |
| 5. Ham                | 48,10 CZK / 100 g               |
| 6. Meat               | 289,90 CZK / 1 kg chicken whole |
| 7. Bread              | 36,60 CZK / 500 g               |
| 8. Wheat flour (1 kg) | 30,90 CZK                       |
| 9. Apples             | 55,50 CZK / 1 kg                |
| 10. Tomatoes          | 99,20 CZK / 1 kg                |
| 11. Carrots           | 42,70 CZK / 1 kg                |
| 12. Cucumber          | /                               |
| 13. Potatoes          | 36,60 CZK / 1 kg                |
| 14. Rice              | 89,80 CZK / 1 kg basmati        |
| 15. Pasta             | 27,50 / 400 g                   |

Figure 9: table Bio Market Vitek – data from my fieldwork done in February and April 2009 Address: Vinohradská 53, 120 00, Praha 2

Empirical research – observation: the range of products very wide, for some of the products there was a possibility to choose, no special products range, some products imported from other countries, products placed and labeled well, service and advice good.



Figure 10: my own photo

## **Country Life**

| Commodity             | Price, specification           |
|-----------------------|--------------------------------|
| 1. Yoghourt (150 g)   | 12,00 CZK                      |
| 2. Milk (1 litre)     | 29,00 CZK                      |
| 3. Cheese             | 37,00 CZK / 100 g Gouda smoked |
| 4. Eggs (6 pieces)    | 59,00 CZK                      |
| 5. Ham                | /                              |
| 6. Meat               | /                              |
| 7. Bread              | 35,00 CZK / 500 g              |
| 8. Wheat flour (1 kg) | 28,00 CZK                      |
| 9. Apples             | 36,00 CZK / 1 kg               |
| 10. Tomatoes          | 95,00 CZK / 1 kg               |
| 11. Carrots           | 39,00 CZK / 1 kg               |
| 12. Cucumber          | /                              |
| 13. Potatoes          | 23,00 CZK / 1 kg               |
| 14. Rice              | 51,00 CZK / 500 g basmati      |
| 15. Pasta             | 25 CZK / 400 g                 |

Figure 11: table Country Life – data from my fieldwork done in February and April 2009 Address: Československé armády 30, 160 00, Praha 6

Empirical research – observation: the range of products very wide, for some of the products there was a possibility to choose between several types, special products range – Country Life, some products imported from other countries, products placed and labeled well, service and advice very good, staff is keen to help and inform, they do not have any meat product – focusing mainly on products for vegetarian and vegans.



Figure 12: Country Life products, my own photo

### Tesco

| Commodity             | Price, specification      |
|-----------------------|---------------------------|
| 1. Yoghourt (150 g)   | 9,90 CZK                  |
| 2. Milk (1 litre)     | 24,90 CZK                 |
| 3. Cheese             | /                         |
| 4. Eggs (6 pieces)    | 36,90 CZK                 |
| 5. Ham                | 37,40 CZK / 75 g          |
| 6. Meat               | 339 CZK / beef 1 kg       |
| 7. Bread              | /                         |
| 8. Wheat flour (1 kg) | 23,90 CZK                 |
| 9. Apples             | 79,90 CZK / 4 pieces      |
| 10. Tomatoes          | 59,90 CZK / 500 g         |
| 11. Carrots           | 34,90 CZK / 750 g         |
| 12. Cucumber          | 54,90 CZK / 1 piece       |
| 13. Potatoes          | 54,90 CZK / 1,5 kg        |
| 14. Rice              | 49,90 CZK / 500 g basmati |
| 15. Pasta             | 24,90 CZK / 500 g         |

Figure 13: table Tesco – data from my fieldwork done in February and April 2009

Address: Hypermarket Tesco Skalka, Přetlucká 50, 100 97, Praha 10

Empirical research – observation: the range of products wide, special products range – Tesco Organic, most of the products imported from other countries, products not quite recognizable between conventional products.

### Plus

| Commodity             | Price, specification          |
|-----------------------|-------------------------------|
| 1. Yoghourt (150 g)   | 9,50 CZK                      |
| 2. Milk (1 litre)     | 24,90 CZK                     |
| 3. Cheese             | 28,90 CZK / 100 g             |
| 4. Eggs (6 pieces)    | 36,90 CZK                     |
| 5. Ham                | 29,90 CZK / 100 g             |
| 6. Meat               | /                             |
| 7. Bread              | /                             |
| 8. Wheat flour (1 kg) | /                             |
| 9. Apples             | /                             |
| 10. Tomatoes          | /                             |
| 11. Carrots           | 26,90 CZK / 1 kg              |
| 12. Cucumber          | /                             |
| 13. Potatoes          | 26,90 CZK / 1 kg              |
| 14. Rice              | 19,90 CZK / 500 g long grains |
| 15. Pasta             | /                             |

Figure 14: table Plus – data from my fieldwork done in February and April 2009 Address: Malešická 2799, 130 00, Praha 3 Empirical research – observation: the range of products wide but products in focus mostly were not present in the particular supermarket, special products range – BioBio, most of the products imported, products well recognizable between conventional products.

## **Dm drogerie**

| Commodity             | Price, specification        |
|-----------------------|-----------------------------|
| 1. Yoghourt (150 g)   | /                           |
| 2. Milk (1 litre)     | /                           |
| 3. Cheese             | /                           |
| 4. Eggs (6 pieces)    | /                           |
| 5. Ham                | /                           |
| 6. Meat               | /                           |
| 7. Bread              | 19,90 CZK / 500 g rye bread |
| 8. Wheat flour (1 kg) | 29,90 CZK                   |
| 9. Apples             | /                           |
| 10. Tomatoes          | /                           |
| 11. Carrots           | /                           |
| 12. Cucumber          | /                           |
| 13. Potatoes          | /                           |
| 14. Rice              | 39,90 CZK / 1 kg            |
| 15. Pasta             | 24,90 CZK / 500 g           |

Figure 15: table Dm drogerie – data from my fieldwork done in February and April 2009 Address: Vinohradská 149 (palace Flora), 130 00, Praha 3

Empirical research – observation: the range of products not very wide, fresh products absent, however a lot of cereals, fruit juices, baby's nutrition Hipp, special products range – Alnatura (German brand), products well recognizable between conventional products.

| Commodity             | the Highest        | the Lowest           | Avarage  |
|-----------------------|--------------------|----------------------|----------|
| 1. Yoghourt (150 g)   | 12,2 – BV.         | 9,5 - Billa, Plus    | 10,5     |
| 2. Milk (1 litre)     | 32,2 – BV.         | 21,9 - Albert        | 26,3     |
| 3. Cheese (100 g)     | 37 – CL.           | 24,9 - Billa         | 30,825   |
| 4. Eggs (6 pieces)    | 65,9 <b>-</b> BV.  | 36,9 - Tesco, Plus   | 49,72    |
| 5. Ham(100 g)         | 49,9 - Tesco       | 24,875 - Albert      | 37,735   |
| 6. Meat (1kg chicken) | 289,9 <b>-</b> BV. | 119,9 - Billa        | 204,9    |
| 7. Bread (500 g)      | 36,6 <b>-</b> BV.  | 35 - CL.             | 35,8     |
| 8. Wheat flour (1 kg) | 30,9 <b>-</b> BV.  | 23,9 - Tesco, Albert | 27,25    |
| 9. Apples (1kg)       | 79,9 - Tesco       | 36 - CL.             | 57,075   |
| 10. Tomatoes (1kg)    | 119,8 - Tesco      | 95 - CL.             | 103,45   |
| 11. Carrots(1 kg)     | 60 - Billa         | 26,9 - Plus          | 43,02    |
| 12. Cucumber          | 54,9 - Tesco       | 54,9 - Tesco         | 54,9     |
| 13. Potatoes (1kg)    | 39,9 - Billa       | 23 - CL.             | 32,6     |
| 14. Rice (500 g)      | 49,9 - Tesco       | 19,9 - Plus, DM.     | 35,71429 |
| 15. Pasta(500 g)      | 39,9 - Billa       | 24,9 - Tesco, DM.    | 32,11667 |

#### **Comparison of prices in different shops (in CZK)**

Figure 16: data from my research – own computations

BV. = Biomarket Vitek CL. = Country Life DM. = Dm drogerie

From the table above it is obvious which of the shops are the most expensive and which the cheapest ones are. However, it always depends on different commodities. Generally, small specialized shops as Biomarket Vitek are more expensive. On the other hand, for customers who are just interested in organic products these small specialized shops are the best choice where to go. Customers can find there a quite wide range of products and they can choose from different types of products of one commodity. Also service and advice provided in the shop is on very high level in comparison to the supermarket. A customer has absolutely different experience after shopping in supermarket and in specialized shop with organic products. It is assumable that the staff in the specialized shop is much more motivated and interested in selling, advice and service for customer than the staff in the supermarket and this fact has a particular effect on customer's experience.

Sometimes it was very hard to compare those different shops because in some of the shops they had very rich offer of products and in some of the shops they had just a few of the products in focus. So, it has to be taken in account for this research that the offer of organic products in different shops is very diverse.

In some of the supermarkets you can find a special products range of organic products with its own brand. This is a quite new phenomenon which has important impact on the market with organic products. These important brands are: Biobio - Plus, Albert bio, Tesco organic. In this case of a large scale production they can reach quite good price with high quality and offer those products to customers who normally do not buy organic products. However, in case of Tesco organic almost all products are imported from abroad, so it is visible also on the price. Remarkable is the case of Country Life the chain of specialized shops in Prague, who has its own products, very wide range of products, wide possibility of choice and for some of the commodities also the best prices.

| Commodity             | Conventional price* | Average bio | bio vs. conventional<br>in % |
|-----------------------|---------------------|-------------|------------------------------|
| 1. Yoghourt (150 g)   | 6,07                | 10,5        | 173                          |
| 2. Milk (1 litre)     | 15,73               | 26,3        | 167                          |
| 3. Cheese (100 g)     | 12,905              | 30,825      | 239                          |
| 4. Eggs (6 pieces)    | 15,51               | 49,72       | 321                          |
| 5. Ham(100 g)         | 12,112              | 37,735      | 312                          |
| 6. Meat (1kg chicken) | 61,37               | 204,9       | 334                          |
| 7. Bread (500 g)      | 10,29               | 35,8        | 348                          |
| 8. Wheat flour (1 kg) | 9,82                | 26,72       | 272                          |
| 9. Apples (1kg)       | 29,18               | 57,075      | 196                          |
| 10. Tomatoes (1kg)    | 45,11               | 103,45      | 229                          |
| 11. Carrots(1 kg)     | 18,07               | 43,02       | 238                          |
| 12. Cucumber          | 1                   | 54,9        | 1                            |
| 13. Potatoes (1kg)    | 10,7                | 32,6        | 305                          |
| 14. Rice (500 g)      | 18,375              | 35,71428571 | 194                          |
| 15. Pasta(500 g)      | 16,635              | 32,11667    | 193                          |

**Comparison of prices with conventional products (in CZK)** 

Figure 17: data from my research – own computations

\* Average consumer prices of several chosen products 12<sup>th</sup> week of the year 2009 for Prague - Czech statistical office: http://www.czso.cz/csu/csu.nsf/informace/tdp1209.doc

In this table above is the comparison of prices of organic products and conventional products. The last column expresses the percentage comparison of average price of particular organic (bio) commodity and average price of conventional commodity. It is obvious that all organic commodities are more expensive than conventional commodities; the percentage

difference fluctuates from 67 % to 248 %. Commodities with the highest percentage difference are: eggs, ham, meat, bread and potatoes.

# 4.5. Different commodities and their prices in France

| Commodity              | Conventional<br>price* | Average bio* | Bio vs. conventional<br>in % |
|------------------------|------------------------|--------------|------------------------------|
| 1. Yoghourt (150 g)    | /                      | /            | /                            |
| 2. Milk (1 litre)      | 0,6                    | 1,15         | 192                          |
| 3. Cheese (100 g)      | 0,486                  |              | /                            |
| 4. Eggs (6 pieces)     | 1,21                   | 2,26         | 187                          |
| 5. Ham(100 g)          | /                      |              | /                            |
| 6. Meat (1kg chicken)  | 3,07                   | 9,02         | 294                          |
| 7. Bread (500 g)       | /                      |              | /                            |
| 8. Wheat flour (1 kg)  | /                      |              | /                            |
| 9. Apples (1kg)        | 1,89                   | 4,73         | 250                          |
| 10. Tomatoes (1kg)     | 3,16                   | 3,99         | 126                          |
| 11. Carrots(1 kg)      | 1,55                   | 2,29         | 148                          |
| 12. Cucumber (1 piece) | 1,66                   | 2,29         | 138                          |
| 13. Potatoes (1kg)     | 0,54                   | 1,99         | 369                          |
| 14. Rice (500 g)       | /                      | 1            | /                            |
| 15. Pasta(500 g)       |                        |              | /                            |

**Comparison of prices with conventional products - France (in EUR)** 

#### Figure 18: data from my research and other sources listed below

\*Average consumer prices of several products in France – Service des Nouvelles des Marchés, Ministère de l'Agriculture et de la Pêche (Ministry of Agriculture and Fishing): http://www.snm.agriculture.gouv.fr/cgi-bin/cgiaccueil

In this table is the comparison of prices of conventional products and organic products in France. The fact is that in France organic products are generally more popular and better known than in the Czech Republic. So, prices are not so much higher in comparison to the conventional products as in the Czech Republic, just potatoes are above the percentage difference of 200 %. For creation of this table there were very limited data, not all commodities in focus were present in the French database. However, it can provide for this research some overlook to the real situation on the French market.

| Commodity              | Conventional | BIO    | Bio vs. conventional<br>in % |
|------------------------|--------------|--------|------------------------------|
| 1. Yoghourt (150 g)    | /            | /      | /                            |
| 2. Milk (1 litre)      | 15,86        | 30,40  | 192                          |
| 3. Cheese (100 g)      | 12,85        | /      | /                            |
| 4. Eggs (6 pieces)     | 31,99        | 59,74  | 187                          |
| 5. Ham(100 g)          | /            | /      | /                            |
| 6. Meat (1kg chicken)  | 81,16        | 238,44 | 294                          |
| 7. Bread (500 g)       | /            | /      | /                            |
| 8. Wheat flour (1 kg)  | /            | /      | /                            |
| 9. Apples (1kg)        | 49,96        | 125,04 | 250                          |
| 10. Tomatoes (1kg)     | 83,53        | 105,48 | 126                          |
| 11. Carrots(1 kg)      | 40,97        | 60,54  | 148                          |
| 12. Cucumber (1 piece) | 43,88        | 60,54  | 138                          |
| 13. Potatoes (1kg)     | 14,27        | 52,61  | 369                          |
| 14. Rice (500 g)       | /            | /      | /                            |
| 15. Pasta(500 g)       | /            | /      | /                            |

Comparison of prices with conventional products - France (in CZK)\*

Figure 19: data from my research and other sources listed below

\* Exchange rate from 10/4/2009: 1 EUR = 26, 435 CZK, Czech National Bank: http://www.cnb.cz/cs/index.html

# Comparison of prices of conventional products in the Czech Republic and in France (in CZK)\*

| Commodity             | Conventional<br>CR | Conventional<br>FR | FR vs. CR (%) |
|-----------------------|--------------------|--------------------|---------------|
| 1. Yoghourt (150 g)   | 6,07               | /                  | /             |
| 2. Milk (1 litre)     | 15,73              | 15,86              | 100,8264463   |
| 3. Cheese (100 g)     | 12,905             | 12,85              | 99,5738086    |
| 4. Eggs (6 pieces)    | 15,51              | 31,99              | 206,2540297   |
| 5. Ham(100 g)         | 12,112             | /                  | 1             |
| 6. Meat (1kg chicken) | 61,37              | 81,16              | 132,2470262   |
| 7. Bread (500 g)      | 10,29              | /                  | 1             |
| 8. Wheat flour (1 kg) | 9,82               | /                  | 1             |
| 9. Apples (1kg)       | 29,18              | 49,96              | 171,2131597   |
| 10. Tomatoes (1kg)    | 45,11              | 83,53              | 185,1695855   |
| 11. Carrots(1 kg)     | 18,07              | 40,97              | 226,7293857   |
| 12. Cucumber          | /                  | 43,88              | 1             |
| 13. Potatoes (1kg)    | 10,7               | 14,27              | 133,364486    |
| 14. Rice (500 g)      | 18,375             | /                  | 1             |
| 15. Pasta(500 g)      | 16,635             | /                  |               |

Figure 20: data from my research and other sources listed below

\* Exchange rate from 10/4/2009: 1 EUR = 26, 435 CZK, Czech National Bank: <u>http://www.cnb.cz/cs/index.html</u>

| Commodity             | BIO CR      | BIO FR | FR vs. CR (%) |
|-----------------------|-------------|--------|---------------|
| 1. Yoghourt (150 g)   | 10,5        | /      | /             |
| 2. Milk (1 litre)     | 26,3        | 30,4   | 115,5893536   |
| 3. Cheese (100 g)     | 30,825      | /      | /             |
| 4. Eggs (6 pieces)    | 49,72       | 59,74  | 120,152856    |
| 5. Ham(100 g)         | 37,735      | /      | /             |
| 6. Meat (1kg chicken) | 204,9       | 238,44 | 116,3689605   |
| 7. Bread (500 g)      | 35,8        | /      | 1             |
| 8. Wheat flour (1 kg) | 26,72       | /      | /             |
| 9. Apples (1kg)       | 57,075      | 125,04 | 219,0801577   |
| 10. Tomatoes (1kg)    | 103,45      | 105,48 | 101,9623006   |
| 11. Carrots(1 kg)     | 43,02       | 60,54  | 140,7252441   |
| 12. Cucumber          | 54,9        | 60,54  | 110,273224    |
| 13. Potatoes (1kg)    | 32,6        | 52,61  | 161,3803681   |
| 14. Rice (500 g)      | 35,71428571 | /      | /             |
| 15. Pasta(500 g)      | 32,11667    | 1      | /             |

Comparison of prices of organic products in the Czech Republic and in France (in CZK)\*

Figure 21: data from my research and other sources listed below

\* Exchange rate from 10/4/2009: 1 EUR = 26, 435 CZK, Czech National Bank: <u>http://www.cnb.cz/cs/index.html</u>

In the last three tables are computed differences between Czech prices and French prices for conventional and organic products, for the better comparison it is changed to Czech crowns. Remarkable difference is between prices of conventional products, in this case just diary products as milk and cheese are almost on the same price level. Other conventional products are much more expensive in France.

In case of the comparison between prices of French and Czech organic products the difference is not so high (2% to 60 % higher), so it means that prices of organic products in the Czech Republic are almost on the same level as in France. However, the fact of a very different level of living in the Czech Republic and in France has to be taken into account. Simply, people living in France have more money to spend for high quality food than people in the Czech Republic. Moreover, the traditional French cuisine based on high quality ingredients is important part of the French culture.

# Comparison of the cost of living in the Czech Republic and in France for the year 2006 (in CZK)\*- income per household per person, expenditures for food

| Deciles                          | Lowest 10% | Fifth 10 % | Highest 10% | Average |
|----------------------------------|------------|------------|-------------|---------|
| Gross money income – CR (CZK)**  | 63 470     | 118 770    | 304 063     | 144 386 |
| Gross money income – FR (CZK)*** | 198 104    | 440 434    | 1 336 342   | 544 661 |

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|                       |                            |                  |

| Expenditures  | in CZK | In % (from average gross<br>money income) |
|---|--------|---|
| Expenditures-food, beverages, public catering CR**  | 26 100 | 18,08%                                    |
| Expenditures-food, beverages, public catering FR*** | 84 423 | 15,50%                                    |

Figure 22: data from my research and other sources listed below

\* Exchange rate from 10/4/2009: 1 EUR = 26, 435 CZK, Czech National Bank: http://www.cnb.cz/cs/index.html

\*\* Czech Statistical Office - Household composition, income and expenditure (2006): http://www.czso.cz/csu/2007edicniplan.nsf/engp/3001-07

\*\*\* Institute national de la statistique et des études économiques (France) – Average level of living per decile, Household expenditures for food and restaurants:

http://www.insee.fr/fr/themes/theme.asp?theme=5&sous\_theme=1&nivgeo=0&type=2

From these data from the Czech and French Statistical Office is very well visible how different is the cost of living in the Czech Republic and in France. Unfortunately, more recent data to compare were not available. However, for the general overview the data of year 2006 is a sufficient example. Gross money income in France is more than three times higher than in the Czech Republic. On the other hand, expenditures for foodstuff are also higher but not that much. In percentage comparison Czech spend higher percentage from his budget for food than French. In relation to the comparison of prices of organic products in the Czech Republic and in France, where the prices of organic food were not so much different in both countries, it is remarkable that French have more than three times higher budget to spend for food and organic foodstuff than Czech.

# **5.** Conclusion

During the process of compiling all the information, I at least fulfilled my personal goal to get to know the situation of organic products on the Czech market better and to make a general picture to understand this issue deeper. I have read a lot of materials from the Czech Agricultural and Food Library, from internet sources such as: the International Federation for Organic Agriculture Movement, the Czech Ministry of Agriculture, the Czech and French Statistical Office, and the company Green marketing, I even contacted the organization in France – l'Agence Bio – which links together: the French Ministry of Agriculture and Fishing, the French Ministry of Ecology and Sustainable Development and the French National Federation of Organic Farming and other organizations, to ask them for exact and reliable information.

Through my own fieldwork when I put myself in the position of customer and I went to many shops and supermarkets in Prague, I could see that not just a quality product, fancy packaging, and the image that I was doing something good for my health, or that I was helping our environment made me buy it. I experienced that it is quite important for customers also to have the possibility of good service and advice even more in the case of organic products when they did not know all the products and so needed some professional help. From this experience I can say that for sure in the smaller specialized shops you can get better advice from staff who really understand it, in supermarkets you normally should not expect any advice. Then it is up to you to decide between the ratio of the level of service and price.

The situation on the market and conditions for organic products are generally very positive. We can see this trend also in foreign trade. The increase in the size of the market for organic products has been quite fast in the last few years. From my research it is obvious that the price level of organic products in the Czech Republic is high, in real terms compared to the cost of living in France and to the price level of organic products there. I can say that it is still much more expensive for Czech people to buy organic products in the Czech Republic than for French people to buy organic products in France. For customers price remains the biggest obstacle. However, in the future I can predict growth of the market for organic products, even in this period of global financial crisis. People get used to a healthy style of living and they will continue buying organic products. The financial crisis, in my view, will

cause the growth of the market for organic products to slow down but it will not cause a dramatic decrease.

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# 7. Supplements

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