# CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

*Department of Economics*



# Economic analysis of land market in the Czech Republic

**Bachelor Thesis**


## Author: Jiří Hrabák

**Supervisor: Ing. Petr Procházka, MSc, Ph.D.**

# ČESKÁ ZEMĚDĚLSKÁ UNIVERZITA V PRAZE

Katedra ekonomiky

Provozně ekonomická fakulta

# ZADÁNÍ BAKALÁŘSKÉ PRÁCE

Hrabák Jiří

Agricultural Economics and Management

Název práce

**Ekonomická analýza trhu s půdou v České republice**

Anglický název

**Economic analysis of land market in the Czech Republic**

---

**Cíle práce**

To perform evaluation of chosen land parcel in the Czech Republic using 3 valuation methods. To determine and evaluate factors affecting price of land in the Czech Republic. Estimate the future developmnet of land prices in the Czech Republic.

**Metodika**

Using trend analysis to estimate future demand for land and development of land prices in the Czech Republic. From the data estimate value of land by using hedonic pricing method, comparative method and deductive method will be used.

**Harmonogram zpracování**

9/2011 lit. review
12/2011 analysis
3/2012 submission

---

**Rozsah textové části**

30 - 40 pages

**Klíčová slova**

land market, the Czech Republic, price of land, pricing method, building land, land value

**Doporučené zdroje informací**


1) Zazvonil, Zbyněk. Oceňování nemovitostí na trţních principech. 1.vydání, Praha: CEDUK, 1996.172 s.ISBN 80-902109-0-2

2) Bradáč, A., Fiala, J.: Nemovitosti-Oceňování a právní vztahy, 2. přepracované a doplněné vydání, Linde Praha, a.s., 1999, ISBN 80-7201-197-9

3) Synek, M. Ekonomická analýza. Praha: Vysoká škola ekonomická v Praze, Fakulta podnikohospodářská, 2003. VŠ skriptum

4) Němec, J., a kol., Půda v České republice, Praha, 2009, ISBN 80-903482-4-6

5) Němec, J., Štoblová, M., Trh s půdou ve vztahu k pozemkovým úpravám v ČR, ZE 7/2001, ČAZV Praha, 2001

6) Bradáč, A., Fiala, J.: Nemovitosti-Oceňování a právní vztahy, 2. přepracované a doplněné vydání, Linde Praha, a.s., 1999, ISBN 80-7201-197-9

7) Trajer, V.: Katastr nemovitostí v otázkách a odpovědích, 1. vydání, Praha, ASPI, a.s., 2003, ISBN 80-86395-62-6

8) Sůvová, H., Pletichová, D., Rozvoj trhu půdy před vstupem ČR do EU, Zemědělská ekonomika 42/1996

9) Stephen F. Fanning. Market Analysis for Real Estate: Concepts and Appliccations in Valuation and Highest and Best Use, MAI, 2005. 543 s. ISBN 0-922154-86-4

10) Janků, Martin. Nemovitosti koupě, prodej a další právní vztahy. 2.vydání, Brno: Computer Press a.s., 2007. 280 s. ISBN 978-80-251-1499-5

11) Bradáč, A. Teorie oceňování nemovitostí. 8.vydání, Brno: CERM, 2009. 754 s. ISBN 978-80-7204-630-0

12) Bradáč, Albert. Úřední oceňování majetku 2010. Brno: CERM, 2009. 302s. ISBN 978-80-7204-667-6

13) Janků, J., Pedologie pro ekonomy, skripta PEF, ČZU Praha, 2007, ISBN 978-80-213-1115-2


**Vedoucí práce**

Procházka Petr, Ing., MSc, Ph.D.

**Termín odevzdání**

březen 2012

**prof. Ing. Miroslav Svatoš, CSc.**
Vedoucí katedry

ČESKÁ ZEMĚDĚLSKÁ UNIVERZITA V PRAZE Provozně ekonomická fakulta

**prof. Ing. Jan Hron, DrSc., dr.h.c.**
Děkan fakulty

V Praze dne 5.3.2012

**Declaration**

Hereby I declare that this bachelor thesis "Economic analysis of land market in the Czech Republic" was written independently by me under the leadership of supervisor using literature and other information sources that are cited in the thesis and listed in the bibliography at the end of the thesis. As the author of the thesis I further declare that I in connection with creation of the thesis did not infringe thy copyright of third parties

InPrague, ……  _____

**Acknowledgement**

I would like to thank Ing. Petr Procházka, MSc, Ph.D. for his advises and supervision of my bachelor thesis.

# Economic analysis of land market in the Czech Republic

**Summary**

The thesis outlines general background of market with land in the Czech Republic. Land market is a part of real estate market. The conditions for development of market economy in the Czech Republic began after 1989. Huge dynamic changes occured in terms of view on real estate as such, on their properties, parameters, functionality, efficiency, architecture, and a number of other criteria. The thesis answers question of further development of prices of land in the Czech Republic. Attention is also paid to development of real estate market in the Czech Republic. Another task of the thesis is analysis of current situation on the real estate market, with emphasis on flats, family houses and building plots used for living purposes. Next objective is estimation of major factors influencing the price of land used for building purposes. Average price of agricultural land increased by 53% between 2003 and 2009. In the year from 2008 to 2009 the price of agricultural land increased by 14%. In the thesis the comparative method is used in order to evaluate benefits of building plots from set of 70 grounds, which all have utilities such as pipeline, water, electricity and canalization. These building plots are suitable for construction of family house. Using factor coefficients (location, environment, acreage) the input market price was adjusted in order to find out which plot has the best value for purpose of building a family house. For the method of land evaluation price map is used.

**Keywords:**

land market, the Czech Republic, price of land, pricing method, building land, land value, soil

# Ekonomická analýza trhu s půdou v České republice


**Souhrn**

Teze obecně nastiňuje celkovou situaci trhu s půdou v České Republice. Trh půdy je částí trhu s nemovitostmi. Podmínky pro rozvoj trhžní ekonomie v České Republice vznikly až po roce 1989. Při pohledu na trh nemovitostí jako takový, proběhly u něj dynamické změny vlastností, parametrů, funkce, úspory, architektury a mnoha dalších podmínek. Teze odpovída na otázku dalšího vývoje cen půdy v České Republice. Dalším úkolem je analýza současné situace na trhu s nemovitostmi, se zaměřením na byty, rodinné domy a stavební parcely, které jsou určeny pro účely bydlení. Dalším cílem je určení hlavních faktorů ovlivňujících cenu pozemku. Mezi lety 2003 až 2009 vzrostla průměrná hodnota zemědělské půdy o 53%. Na konci roku 2008 vrostla hodnota zemědělské půdy o 14%. K vypočtení výhodnosti u 70 stavebních parcel je použito komparativní metody. Každá z parcel je připravena ke stavbě, to zn. el. přípojka, voda, plyn a kanalizace jsou zavedeny. Použitím faktorových koeficientů (lokace, prostředí, rozloha) byla vstupní cena upravena za účelem zjištění nejvyhodnejší parcely. U metody hodnocení půdy bylo použito cenové mapy



**Klíčová slova**

trh s půdou, Česká republika, cena pozemku, oceňovací metoda, stavební pozemek, hodnota pozemku, půda

# Table of Contents

# 1 INTRODUCTION

Conditions for developing market economy and also real estate market in the Czech Republic began sympathetic after 1989. This thesis provides information concerning the general background of market with land in the Czech Republic since 1989. Market with land is a part of real estate market. Huge dynamic changes occur in terms of view on real estate as such, on their properties, parameters, functionality, efficiency, architecture, and a number of other criteria.

Future development of prices of real estate market economy is relatively unclear. Therefore the thesis contains analysis of price development of real estate such as flats, family houses and grounds. The thesis also describes the relationship between buyer on the side of demand and the seller on the supply side.

People seek possibility of safe investment. Since land is a scarce resource with limited volume, in the long run its price is going to increase. Parameters relevant for land valuation are outlined in the thesis. In order to be able to evaluate land it is necessary to have a proper understanding of land valuation methods.

Among other, the thesis deals with a question of choosing appropriate land for purpose of building a family house by use of methods suitable for evaluation of such a property.

# 2 OBJECTIVES AND METHODOLOGY

A wide range of speculations and predictions of how will the prices of real estate market in the Czech Republic develop, ties down interest for writing this thesis. Using suitable methods listed below the main objectives, the thesis provides corresponding information about real estate market with main focus on land market. Goals of the thesis lie in answering questions concerning the price development of real estate. The methods are used for evaluation of real estate property, which are people looking for in order to invest, or to gain money. In recent time it is necessary to understand the situation on one of the most important markets in the world, which drives the development of the future market and living standard of society as well.

## 2.1 OBJECTIVES OF THE THESIS

The thesis describes general background of situation of land market in the Czech Republic.

The attention of the thesis is paid to the development of real estate market in the Czech Republic. The objective of the thesis is the evaluation of current situation on the real estate market, with emphasis on flats, family houses and building plots, used for living purposes. Next objective is estimation of major factors influencing the price of land used for building purposes.

The task here is to determine the individual potential benefits from use, from data of seventy plots located in the area of Prague-West. Each plot is controlled whether it is prepared for construction. The evaluation of their potential benefits is done using method adjusting price by evaluation factors.

Following task is to determine the price of land using the price map of the area of Horoměřice, which is also a part of seventy subjects mentioned above, in order to determine the plot of land with the best adjusted value to advertised price ratio within this locality. Residual method is used for evaluation of the potential of building plot situated on the edge of Prague, on which stands an old building meant for demolition. This evaluation helps with clarification whether the plot is suitable for purposes of entrepreneurial activity, or for private investment only.

## 2.2 METHODOLOGY

The quality of the thesis depends among other things on use of specialized methods meant for valuation and pricing of grounds - building plots especially. With the help of trend analysis, the determination of causes for situation of current development of property market and description of factors influencing the development of real estate prices is done. With the use of suitable methods for evaluation and pricing of plot suitable and prepared for construction of family house. Building plot is considered to be prepared when it is equipped with utilities such as pipeline, water, canalization and electricity. For the purposes of required evaluation, Microsoft Excel is used as tool for table creation. The data from the table are then processed using factors which are considered as relevant. Among relevant factors belong acreage, situation regarding the distance from the Charles Square, and environmental factor. Acreage factor is calculated as the total area of plot divided by 1000. The location factor is determined according to the distance of particular plot from the Charles Square. The average of sum of particular distances equals 1, the location index is than calculated as the particular distance of plot divided by the average of all distances. Environmental indexes are estimated upon the air pollution map and upon the situation in the surrounding area. For this purpose data are acquired from internet webpage www.reality.cz, which is known for its tradition in providing advertisement of private and company sector as well. The price per square meter of plot is then adjusted by relevant factor indexes. The results are rounded to integer numbers. The cells containing results are

coloured from dark green, through yellow, to red. Dark green means high estimated value to market price ratio, whereas red stands for low value to price ratio.

Next objective of the thesis is done using residual method. In this case the profitability evaluation in the field of small developer activity, which is aimed at otherwise not much interesting plots from the price point of view. To this purpose Microsoft Excel is used for creation of table, which examines this particular interest, while estimating the maximal possible potential of use.

# 3 LITERATURE OVERVIEW

## 3.1 REAL ESTATE MARKET

### 3.1.1 BUYER - DEMAND

The buyer wants to obtain the property in order to utilize it. To utilize refers to use for living or for entepreneriał activity. An alternative of buying a property can be rental associated with rent payment. Buying price and rent represent costs, which the buyer has to pay for required area. The buyer decides with given utility to minimize the costs, or with given costs to maximize the utility. The demand is influenced not only by the prices of properties, but by prices of rental as well.

Secondary utility is income from rental. In that case the purchasing of property has a character of investment. In comparison with alternative assets, investment into properties is less risky and time requiring. Profitability together with other alternatives of investment have the influence of demand for assets.

Last but not least the demand for property can be saturated by buylding it. Then the price of property is represented by its construction costs. That means, that demand is dependent on construction material costs and costs of works.

As any other investment, even investment in property can be realized from external sources. The most common are mortgages. In realation to demand for property, important role play the interest rate and availability of mortgage sources. (Dušek, 2011, p. 34)

### 3.1.2 SELLER - SUPPLY

Owner of property sells it in case, that the utility the property brings does not respond to owners needs. Important factor influencing the supply of properties is construction with intention of gaining profit. In such case the owner of property is ussualy developer who finances the whole or part of project, which is then sold or rented. (Dušek, 2011, p. 36)

### 3.1.3 SITUATION ON THE MARKET AFTER 1989

The basic and underlying assumption for formation land market in market economy is the existence of the private ownership institute of real property. This institute was restored in the Czech Republic after 1989, when it became one of the components to restore legal status of the company after forty years period of violent interference with civil rights.

The Development of real estate market is related to recent state of valuation real estate. After the year 1989, real estate market started to develop step by step in the Czech Republic. Development of real estate market is connected with removing different administrative, legislative obstacles which are obstruction in its working. Development of real estate market is also linked with development of supply and demand. According to this fact, individual segments of real estate market were developing differently in terms of speed. Regulation in field of housing is relatively strong, it rests not only in direct regulation of rent for part of candidates but also low effective protection of tenants in terms of real estate market. On the other hand, real estate market concentrated on residential area is regulated just a little (limitation for foreign entities to redeem ownership of real estate).

After the year 1989 as in all market economy countries the land has become goods. As each product must have its price, expressed in money. Land as goods has its specific features. Supply of land is inelastic. Land is a limited source because its total supply is given by nature. It is defined in a particular location at a precise location. Land is immobile. Land in general and especially agricultural land has its own manufacturing

appreciation capabilities. Land can produce new goods even without the intervention of man. In the Czech Republic the price of land may differ according to the type and method used for appreciation. (Němec, 2004, p. 189)

In recent years the situation on the real estate market has been stabilized and crystallized to a large extent compared to the pioneer times of the nineties. On the other hand, the huge dynamic changes occur in terms of view on real estate as such, on their properties, parameters, functionality, efficiency, architecture, and a number of other criteria. Technology of construction has changed significantly and new materials are being used. Development of areas is significantly increasing, construction of huge intensity occurred in the urban agglomerations and along major transportation arteries. As a result of this development, lifestyles and the stratification of the population are changing. Also location of commercial centres and job opportunities has changed. Views on the accessibility and distance is being revised. The share of foreign capital in real estate is growing, it is captured by mortgages and loans. Financial institutions play an important role as well as building developers and foreign capital. There was a rapid expansion of information technologies. Therefore the problem is not in gathering requirement information but in the way of how to sort and evaluate them. All this is in addition framed and adjusted according to the directives and regulations of the EU. (Zazvonil, 2004, p. 6,7)

### 3.1.4 PERIOD AFTER ACCESSION THE CZECH REPUBLIC IN EU

The Czech Republic has entered EU in 1.5.2004. After accession of the Czech Republic to EU there is ban for foreigners to buy land. This regulation was valid for 7 years since 2004 to 2011.

Land owners are expecting significant increasing of value of agricultural land. There is an expectation of possible buyers from EU. Land owners are reserved in selling their property excluding these who have financial difficulties. After 2012 there is an expectation of rapid increase of selling grounds from land owners.

### 3.1.5 CIVIL CODE

Under the Civil Code, Law No. 40/1964 Coll., As amended (hereinafter referred to as the "Civil Code"), the subject of property rights can be movable and immovable. Property, which are the subject of this paper are the land and buildings related to land by solid foundation. Part of the land are both vegetation and also the necessary premises under the surface of the land. Area which is above the land is not part of the land. Original principles of Roman law "superficies solo cedit", and therefore the building is part of the land, was deserted by our law in 1950 and since then is a principle contrary "non superficies solo cedit." By adopting this principle, the building became an independent things in the sense jurisdiction and can thus follow a different legal regime than the land to which they are firmly connected. In legal relations shows that this principle is not always positive. In specific cases are created such as the difficulty caused by having another entity owns the land and another building erected on it. (Němec, 2004, p. 129)

## 3.2 TYPES OF REAL ESTATE

The property is defined in § 119 of the Civil Code (Act No. 40/1964 Coll.). Real estate as buildings associated with the ground with a solid foundation. Land in accordance with the Cadastral Act separated from the parts of the territorial administrative unit boundary or cadastral, boundary ownership, possession limit, limit types of land or. interface method of land utilization. (Bradáč, Fiala, 2009, p. 754)

The plot is a land, which is geometrically and locally determinate, it is recorded in the cadastral map and marked with a plot number. Acreage of the parcel is the expression of surface projection of the content property to display the plane in the flat metric units, rounded to the nearest square meter.

In Act No. 151/1997 Coll. is for the subdivision of land shown:

§ 9 – land subdivision

For valuation purposes the land is divided as follows:

**a.** Building land (1.,2.,3.)

**1.** Not built-up land registered in the cadastre of real estate property for individual types, which were issued by the zoning and planning decision designed for the purpose of building land; where specific provisions provide highest permissible acreage of land which is occupied by building, building land is only the part corresponding to the acceptable level intended to construction.

**2.** land registered in land registry in the type of land building and courtyard, others in a kind of land area - a building site or other area, consisting of the individual functional unit with the building and land registered in the cadastre of real estate in the area of land type occupied by contruction for their common use and are ownership of the same body.

**3.** Land area in fact occupied by constructions regardless of the state recorded in the cadastre of real estate property.

**b.** Agricultural land registered in the cadastre of real estate property as arable land, hop fields, vineyards, gardens, orchard, meadow and pasture.

**c.** Forest lands, forest lands which are registered in the cadastre of real estate property and non-forest land afforested.

**d.** Water reservoirs and water streams registered in the cadastre of real property as a land

**e.** Other Land/Sites, which are unusable as farm land and barren soil, such as gorge, limit with stones, cofferdam, swamp, bazin. (Bradáč, Fiala, 2009, p. 388)

## 3.3 REAL ESTATE FISCAL TAXATION

Restoring the character of our market economy, requiring an entirely new tax system. This task should solve tax reform made on January 1, 1993. The principles of this reform

including individual income tax is fixed by Act No. 212/1992 Coll., on the tax system, as amended by Act No. 302/1993 Coll. The reform also included a tax credit related to real estate.

**Property taxation:**

Real estate tax,

Inherence taxes of property,

Tax on property donated,

Real estate transfer tax (Němec, 2004, p. 175)

## 3.4 PARAMETERS RELEVANT FOR LAND VALUATION

Quantity of all land is limited, the next characteristic is virtually infinite lifetime. This is not the case for all types of land such as quarries, sandpits, etc. In case of mining they lose their lifetime attribute. Lifetime of land can be shorten also due to environmental burden. The value of land is not only in their limited quantities but also in the ability to deliver benefits. This may result from its use. Another benefit bring agricultural land and forestry land, another mining area. Important benefits that land can pose is the possibility of building on them.

For important parameters relevant for land valuation may be considered:

The price is generally considered to be the most important factor affecting price of the property and also the ability to sell the property.

1. **Location**

   In terms of impact on the value of the land can be distinguished the macro-location – position that can be understood in wider sense (such land in Prague) and micro-location – location understood in terms of small area (such as one street). Different

micro-location of two otherwise identical eg. neighbouring land may cause their different price. Quality of land position can't be considered absolutely but only relative in relation to the possible use of land.

**2. Total area**

Another factor is total area of land. It is valid that the larger the plot is, usually the higher the price of the land is in CZK. In contrary, value of land in CZK/m2 is usually a decreasing function of that area. Small land has its value lower than bigger land. In proportion the price/m2 of bigger land is lower compared to the price/m2 of smaller land.

**3. Method of use**

Influence the way of using land value reflects one of two basic land value-element, which is to benefit. Possible way of using land (agricultural land, garden, water area, building land, road, etc.) influence the benefit respectively potential yields and may affect its value.

**3. Degree of spatial planning**

In terms of land most common type of use, ie as building plots, it is important to ensure the right of construction of the plot. To ensure legal possibilities of construction (The zoning, building permit), on the one hand it requires time and finance of the owner, on the other hand it lower or eliminate risks corresponding with possible treat of construction implementing and positively reflects on value of given land.

**5. Utilization measure**

Even though the relationship between built-up and not built-up land is not uniquely described in theory of appreciation it can be stated that low or high level of land area being used for building reflects negatively on its value.

**6. Shape of land**

Irregular or to narrow shape of land affects negatively the price of land in terms of its possible use.

7. **Utilities**

   In terms of costs, utilities (electricity, gas, sewerage, water supply) often represent need of input a considerable amount of money.

8. **Environmental burden from the past**

   Especially the industrial use of land may be contaminated by substances, which endanger the health or even life of people. This load usually reflects negatively on the value of land. (Dušek, 2011, p. 40,41,42)

## 3.5 APPRECIATION OF GROUNDS

### 3.5.1 COMPARATIVE METHOD

In order to estimate land value using comparison method one have to:

1. Larger number of grounds with similar attributes need to be collected by valuer. Main atributes generating value of land are considered to be similarity of land.Similarities of land need to be understood in the sence of the basic value factors such as location, size an so on. Important factor represents time closeness of realization of used prices to the time of estimation.
2. Realized prices are converted on a comparable basis, the most suitable is Kc/m2.
3. Estimation of value factors, in which the collected sample is different from the evaluated land, and differences will be outlined with the help of coefficient.
4. Arithmetic average of adjusted prices in Kc/m2 represents the value of land by comparison, so called comparative value.
5. From the reliability point of view of the result, it is necessary to control again whether the used data were statistically relevant.

Ad 1)

The best source of data are the real prices recorded in the database of the valuer. Thanks to frequent lack of data material, sometimes real transaction are replaced by supply prices from published insertion by real estates.

Ad 5)

It is possible to use variable coefficient for measuring as well (the lower, the better).

Advantage of this estimate method is its direct connection on prices created by the Real Estate market. In case that the assumptions for this method's use are not met (use of small number of data, which are not similar enough to the subject of estimation), it can lead to distortions in pricing.

Like with land this method can be used by other types of assets (flats, houses, garages) (Dušek, 2011, p. 47)

### 3.5.2 INDEX METHOD

Index methods are based on the principle of deduction of price from another land, which price is known. This method then counts with the differences among the two assets.

As a measure of extent of building usage, index floor area (IPP). Index IPP is the ratio of sum of all above-ground floor in all buildings for land acreage. To IPP values indexes are assigned. Indexes are used for conversion of values of property in CZK/m2. (Dušek, 2011, p. 50)

### 3.5.3 METHOD OF LOCATION CLASS

This method is also known by the name of its creator Swiss architect W. Naegeli – the Naegeli method. Here, a certain correlation between of values of building and the land bon which the building stands is used together with the possibility of gaining value received from rental.

The relative ratio of value of land to the whole value of property is determined by keys which characterize the location of property, where individual keys are attached values from 1 to 8.

1. key: usual situation – from small, recreationally inactive villages to the best places for shop placement in a metropolis.
2. Key: intensity of land use – from unused single-floor buildings to multi-level buildings in Prague and Brno.
3. Key: traffic relation to the closest big city – from distant, unpleasantly reachable locations, (travel time more than 1 hour) to centre of traffic system.
4. Key: living sector – from village buildings with no garden to large area luxury hotels
5. key: production, industry, administration and trade – from industrial areas, over big banks, to headquarters of concerns
6. key: appraising or lifting factors
7. key: reducing factors

With the help of average key, the ratio of value of building area to the total value of property is set. In other words: reproduction value of buildings + the value of building area of a property = the total value of property. This moves in interval between 1% and 38%. (Dušek, 2011, p. 52)

### 3.5.4 RESIDUAL METHOD

This method represents one possibility of market valuation of land, whose actual way or volume of building usability is not optimal. It is based on valuation of property which reflects its best and highest use, and on the estimation of costs necessary for its realization, building, and profit. In the case of best use of land it is necessary to undergo a test on the feasibility in terms of law, technical, and economic. All in order to be maximally productive. The accuracy of estimation of profits and costs – or their change over time – could dramatically affect the results of this method. This creates the limits of use of of method. On the other hand, its advantages are the low connection to the property market, high transparency, and consideration of all the main characteristics which affect the value of property. (Dušek, 2011, p. 55)

### 3.5.5 VALUATION BY USE OF PRICE MAP

Databases of prices are represented by price maps, which are a graphical output with approximate prices of concrete area of land expressed in CZK/m2. Three basic methods for creating price maps are used:

Methodology of creating price bands

Methodology of creating target prices

Methodology of getting market price of concrete land

In the Czech Republic there is legislative change of creating price maps which is included in law of valuation land. According to this legislative change, price map of building plots are graphical depiction of building plots on the area of a village or its part. Price maps are in measure of 1:5000 or in more detailed measure with marked prices.

Draft of building land price map or change of this map is to be submitted by ministry of finance of the Czech Republic to get their expression about that before it is published. New prices of building land are published by villages in the end of every calendar year in order

to add their generally binding regulation for price maps. Price map is published in price bulletin of ministry of finance. Village has to provide to everyone who ask for a possibility to view price map of grounds which are managed by this village. Access to some price maps is possible get also from the internet.

Price maps are generally published by large cities. According to the law about valuation of property it is necessary to use price map. In case of valuation using market price value, price map has only informative character. (Dušek, 2011, p. 59)

## 3.6 PRICE AND VALUE

Price and value aren't distinguished by law of the Czech Republic. Price and value have often the same meaning but there is a significant difference between them.

The term price is used for required, offered, or actually paid amount for good or service. It may or may not be in some relation to value, which is attributed by another person. Price is or is not published but it remains as historical fact.

The term value isn't the real paid, offered, or required price. Value is economical category which is expressed by money relation between good and service possible to buy. The setting of value is done by estimation. According to the economic concept, value express benefit, benefit of owner, or service due to date to which is the estimation done. Series of values can be distinguished in material value, yield value, moderate value, market value, etc., which can be represented by different number. In valuing is necessary to define exactly which type of value has to be calculated. (Dušek, 2011, p. 9), (Bradáč, Fiala, 2004)

# 4 ANALYTICAL PART

## 4.1 EVALUATING BUILDING PLOT BY USE OF COMPARATIVE METHOD

Aim of this part of thesis is to use and evaluate relevant factors for buying building plot and for purpose of building small family house on it, in the Czech Republic. Required parameters for searched building plot are to be near to Charles square and there is demand for good environment surrounding the building plot. Another parameter is to find the possible smallest building plot according to the fact that only requirement is to build a house on this land. The emphasis lies in selection of the most suitable one. All utilities are required (pipeline, electricity, canalization, water). Table of 70 grounds is on the next page.

Table 1: List of 70 Grounds (table continues on the next page)

| No. | Location | Acreage in m2 | Purchase price in CZK | Utilities | CZK/m2 |
|---|---|---|---|---|---|
| 1 | Roztoky - Žalov, Prague - West | 988 | 6990000 | all | 7074,89879 |
| 2 | Roztoky, Prague - West | 1035 | 6210000 | all | 6000 |
| 3 | Statenice - Prague, Prague - West | 1000 | 2495000 | all | 2495 |
| 4 | Libeř, Prague - West | 1220 | 2300000 | all | 1885,2459 |
| 5 | Osnice, Prague -West | 1529 | 5963100 | all | 3900 |
| 6 | Mníšek pod Brdy, Prague - West | 901 | 2700000 | all | 2996,67037 |
| 7 | Mníšecký Eden, Prague - West | 858 | 1996995 | all | 2327,5 |
| 8 | Ptice, Prague - West | 1093 | 2320000 | all | 2122,59835 |
| 9 | Únětické kultury, Prague - West | 6117 | 8563800 | all | 1400 |
| 10 | Psáry, Prague - West | 1376 | 3577600 | all | 2600 |
| 11 | Řiťka, Prague - West | 1252 | 3090000 | all | 2468,05112 |
| 12 | Lichoceves , Prague -West | 1055 | 3320000 | all | 3146,91943 |
| 13 | Hostivice, Prague - West | 4215 | 11802000 | all | 2800 |
| 14 | Úhonice, Prague - West | 1067 | 2134000 | all | 2000 |
| 15 | Jíloviště, Prague - West | 1767 | 6890000 | all | 3899,26429 |
| 16 | Jílové, Prague - West | 1000 | 1300000 | all | 1300 |
| 17 | Psáry, Prague - West | 1304 | 3520800 | all | 2700 |
| 18 | Černošice, Prague - West | 765 | 2850000 | all | 3725,4902 |
| 19 | Všenory, Prague - West | 1152 | 3300000 | all | 2864,58333 |
| 20 | Chýně, Prague - West | 1854 | 5932800 | all | 3200 |
| 21 | Řiťka, Prague - West | 1580 | 3990000 | all | 2525,31646 |
| 22 | Průhonice - Rozkoš | 1296 | 4924800 | all | 3800 |
| 23 | Horoměřice, Prague - West | 691 | 2273390 | all | 3290 |
| 24 | Zdiměřice, Prague - West | 1227 | 4350000 | all | 3545,23227 |
| 25 | Zdiměřice, Prague - West | 1620 | 4980000 | all | 3074,07407 |
| 26 | Osnice , Prague -West | 1200 | 3990000 | all | 4214,223 |
| 27 | Černošice, Prague - West | 1139 | 4800000 | all | 2888,88889 |
| 28 | Drahelčice, Prague - West | 900 | 2600000 | all | 2475 |
| 29 | Hradištko, Prague - West | 400 | 990000 | all | 2962,729 |
| 30 | Tuchoměřice, Prague - West | 1583 | 4690000 | all | 4079,69639 |
| 31 | Vestec near Prague - West | 1054 | 4300000 | all | 3490 |
| 32 | Horoměřice, Prague - West | 831 | 2900190 | all | 1271,09358 |
| 33 | Řiťka, Prague - West | 4563 | 5800000 | all | 3031,67421 |
| 34 | Chýně, Prague – West | 884 | 2680000 | all | 1600 |
| 35 | Tursko, Prague – West | 840 | 1344000 | all | 3050 |
| 36 | Statenice, Prague – West | 852 | 2598600 | all | 3900 |
| 37 | Černošice, Prague – West | 1140 | 4446000 | all | 3056,81818 |
| 38 | Černošice, Prague – West | 880 | 2690000 | all | 1390 |
| 39 | jÍloviště, Prague – West | 1338 | 1859820 | all | 2400 |
| 40 | Ptice, Prague – West | 1200 | 2880000 | all | 2600 |
| 41 | Řiťka, Prague – West | 1580 | 4108000 | all | 946,889226 |
| 42 | Řiťka, Prague – West | 3295 | 3120000 | all | 2480 |
| 43 | Statenice, Prague – West | 1572 | 3898560 | all | 3707,09382 |
| 44 | Horoměřice, Prague – West | 874 | 3240000 | all | 2799,60707 |

| No. | Location | Acreage in m2 | Purchase price in CZK | Utilities | CZK/m2 |
|---|---|---|---|---|---|
| 45 | Mníšek pod Brdy, Prague – West | 1018 | 2850000 | all | 1803 |
| 46 | Malé Číčovice, Prague – West | 1598 | 2881194 | all | 2700 |
| 47 | Hostivice, Prague – West | 1381 | 3728700 | all | 4800 |
| 48 | Černošice, Prague – West | 1000 | 4800000 | all | 2575 |
| 49 | Chýně, Prague – West | 906 | 2332950 | all | 2250 |
| 50 | Chýně, Prague – West | 1654 | 3721500 | all | 2569,44444 |
| 51 | Řiťka, Prague – West | 1008 | 2590000 | all | 3210,92077 |
| 52 | Horoměřice, Prague – West | 934 | 2999000 | all | 3050 |
| 53 | Statenice, Prague – West | 834 | 2543700 | all | 2277,10843 |
| 54 | Jílové, Prague - West | 830 | 1890000 | all | 3725,4902 |
| 55 | Černošice, Prague – West | 765 | 2850000 | all | 2941,17647 |
| 56 | Kosoř, Prague – West | 1020 | 3000000 | all | 5809,08033 |
| 57 | Černošice, Prague – West | 859 | 4990000 | all | 2866,24204 |
| 58 | Jinočany, Prague – West | 1570 | 4500000 | all | 2276,6129 |
| 59 | Trnová, Prague – West | 1240 | 2823000 | all | 3560,31406 |
| 60 | Černošice, Prague – West | 1401 | 4988000 | all | 2555,91054 |
| 61 | Řiťka, Prague – West | 1252 | 3200000 | all | 2979,63206 |
| 62 | Černý Vůl, Prague – West | 1522 | 4535000 | all | 6000 |
| 63 | Roztoky, Prague – West | 1035 | 6210000 | all | 2796,52845 |
| 64 | Řiťka, Prague – West | 1037 | 2900000 | all | 1598,0975 |
| 65 | Tursko, Prague – West | 841 | 1344000 | all | 2121,21212 |
| 66 | Ptice, Prague – West | 891 | 1890000 | all | 5300 |
| 67 | Černošice, Prague – West | 1122 | 5946600 | all | 2490 |
| 68 | Statenice, Prague – West | 1500 | 3735000 | all | 3457,79221 |
| 69 | Trnová, Prague – West | 1232 | 4260000 | all | 2365,70248 |
| 70 | Chýně, Prague – West | 968 | 2290000 | all | 2365,7 |

source: Own data processing and calculation (www.reality.cz, 2012)

Table 2: This table will use price/m2 of building plots computed from previous table. Purchase price/m2 is then by use of valuating factors (Location coefficient, Acreage coefficient, Environmental coefficient) adjusted in order to obtain new adjusted price/m2 of building plots. The lower adjusted price/m2 is better.

Location coefficient is the distance from certain building plot to Charles Square.

Coefficient of acreage is total square meters of certain land divided by 1000.

Environmental coefficient measures quality of air and neighbourhood.

Table 2: Adjusted price of 70 grounds (Table continues on the next pages)

| No. | Location | Price/m2 | Location coef. | Acreage coef. | environmetal coef | Adjusted price/m2 |
|---|---|---|---|---|---|---|
| 1 | Roztoky - Žalov, Prague - West | 7074,9 | 0,637 | 0,988 | 1,1 | 4898 |
| 2 | Roztoky, Prague - West | 6000,0 | 0,637 | 1,035 | 1,1 | 4352 |
| 3 | Statenice, Prague - West | 2495,0 | 0,843 | 1 | 1,05 | 2208 |
| 4 | Libeř, Prague - West | 1885,2 | 1,137 | 1,22 | 1,2 | 3138 |
| 5 | Osnice, Prague -West | 3900,0 | 1,230 | 1,529 | 1,2 | 8801 |
| 6 | Mníšek pod Brdy, Prague - West | 2996,7 | 1,441 | 0,901 | 1,15 | 4473 |
| 7 | Mníšecký Eden, Prague - West | 2327,5 | 1,441 | 0,858 | 1,15 | 3309 |
| 8 | Ptice, Prague - West | 2122,6 | 1,240 | 1,093 | 0,8 | 2301 |
| 9 | Únětické kultury, Prague - West | 1400,0 | 0,760 | 6,117 | 1,15 | 7480 |
| 10 | Psáry, Prague - West | 2600,0 | 1,230 | 1,376 | 1,17 | 5148 |
| 11 | Řiťka, Prague - West | 2468,1 | 1,259 | 1,252 | 1,15 | 4475 |
| 12 | Lichoceves, Prague -West | 3146,9 | 1,284 | 1,055 | 1,1 | 4689 |
| 13 | Hostivice, Prague - West | 2800,0 | 0,696 | 4,215 | 0,85 | 6980 |
| 14 | Úhonice, Prague - West | 2000,0 | 1,137 | 1,067 | 0,9 | 2183 |
| 15 | Jíloviště, Prague - West | 3899,3 | 0,946 | 1,767 | 1,15 | 7494 |
| 16 | Jílové near Prague | 1300,0 | 1,387 | 1 | 1,18 | 2127 |
| 17 | Psáry, Prague - West | 2700,0 | 1,230 | 1,304 | 1,17 | 5067 |
| 18 | Černošice, Prague - West | 3725,5 | 0,858 | 0,765 | 1,05 | 2566 |
| 19 | Všenory, Prague - West | 2864,6 | 1,117 | 1,152 | 1,2 | 4424 |
| 20 | Chýně, Prague - West | 3200,0 | 0,916 | 1,854 | 0,85 | 4621 |
| 21 | Řiťka, Prague - West | 2525,3 | 1,259 | 1,58 | 1,15 | 5779 |
| 22 | Průhonice - Rozkoš | 3800,0 | 0,804 | 1,296 | 1,2 | 4749 |
| 23 | Horoměřice, Prague - West | 3290,0 | 0,696 | 0,691 | 1 | 1582 |
| 24 | Zdiměřice, Prague - West | 3545,2 | 0,804 | 1,227 | 1,25 | 4370 |
| 25 | Zdiměřice, Prague - West | 3074,1 | 0,804 | 1,62 | 1,25 | 5003 |
| 26 | Osnice , Prague -West | 3325,0 | 1,230 | 1,2 | 1,2 | 5889 |
| 27 | Černošice, Prague - West | 4214,2 | 0,858 | 1,139 | 1,05 | 4322 |
| 28 | Drahelčice, Prague - West | 2888,9 | 1,019 | 0,9 | 0,9 | 2385 |
| 29 | Hradištko, Prague - West | 2475,0 | 1,534 | 0,4 | 1,1 | 1670 |
| 30 | Tuchoměřice, Prague - West | 2962,7 | 1,049 | 1,583 | 1,1 | 5410 |
| 31 | Vestec near Prague - West | 4079,7 | 0,853 | 1,054 | 1,25 | 4583 |
| 32 | Horoměřice, Prague - West | 3490,0 | 0,696 | 0,831 | 1 | 2018 |
| 33 | Řiťka, Prague - West | 1271,1 | 1,259 | 4,563 | 1,15 | 7304 |
| 34 | Chýně, Prague – West | 3031,7 | 0,916 | 0,884 | 0,85 | 2087 |
| 35 | Tursko, Prague – West | 1600,0 | 1,152 | 0,84 | 1,15 | 1780 |
| 36 | Statenice, Prague – West | 3050,0 | 0,843 | 0,852 | 1,05 | 2300 |
| 37 | Černošice, Prague – West | 3900,0 | 0,858 | 1,14 | 1,05 | 4003 |
| 38 | Černošice, Prague – West | 3056,8 | 0,858 | 0,88 | 1,05 | 2422 |
| 39 | jÍloviště, Prague – West | 1390,0 | 0,946 | 1,338 | 1,15 | 2023 |
| 40 | Ptice, Prague – West | 2400,0 | 1,240 | 1,2 | 0,8 | 2856 |
| 41 | Řiťka, Prague – West | 2600,0 | 1,259 | 1,58 | 1,15 | 5949 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 42 | Řiťka, Prague – West | 946,9 | 1,259 | 3,295 | 1,15 | 4519 |
| 43 | Statenice, Prague – West | 2480,0 | 0,843 | 1,572 | 1,05 | 3450 |
| 44 | Horoměřice, Prague – West | 3707,1 | 0,696 | 0,874 | 1 | 2255 |
| 45 | Mníšek pod Brdy, Prague – West | 2799,6 | 1,441 | 1,018 | 1,15 | 4722 |
| 46 | Malé Číčovice, Prague – West | 1803,0 | 1,196 | 1,598 | 1,08 | 3721 |
| 47 | Hostivice, Prague – West | 2700,0 | 0,696 | 1,381 | 0,85 | 2205 |
| 48 | Černošice, Prague – West | 4800,0 | 0,858 | 1 | 1,05 | 4322 |
| 49 | Chýně, Prague – West | 2575,0 | 0,916 | 0,906 | 0,85 | 1817 |
| 50 | Chýně, Prague – West | 2250,0 | 0,916 | 1,654 | 0,85 | 2899 |
| 51 | Řiťka, Prague – West | 2569,4 | 1,259 | 1,008 | 1,15 | 3751 |
| 52 | Horoměřice, Prague – West | 3210,9 | 0,696 | 0,934 | 1 | 2087 |
| 53 | Statenice, Prague – West | 3050,0 | 0,843 | 0,834 | 1,05 | 2251 |
| 54 | Jílové near Prague | 2277,1 | 1,387 | 0,83 | 1,18 | 3093 |
| 55 | Černošice, Prague – West | 3725,5 | 0,858 | 0,765 | 1,05 | 2566 |
| 56 | Kosoř, Prague – West | 2941,2 | 0,848 | 1,02 | 1 | 2543 |
| 57 | Černošice, Prague – West | 5809,1 | 0,858 | 0,859 | 1,05 | 4493 |
| 58 | Jinočany , Prague – West | 2866,2 | 0,828 | 1,57 | 0,85 | 3168 |
| 59 | Trnová, Prague – West | 2276,6 | 1,078 | 1,24 | 1,2 | 3652 |
| 60 | Černošice, Prague – West | 3560,3 | 0,858 | 1,401 | 1,05 | 4491 |
| 61 | Řiťka, Prague – West | 2555,9 | 1,259 | 1,252 | 1,15 | 4634 |
| 62 | Černý Vůl, Prague – West | 2979,6 | 0,069 | 1,522 | 1 | 3111 |
| 63 | Roztoky, Prague – West | 6000,0 | 0,637 | 1,035 | 1,1 | 4352 |
| 64 | Řiťka, Prague – West | 2796,5 | 1,259 | 1,037 | 1,15 | 4200 |
| 65 | Tursko, Prague – West | 1598,1 | 1,152 | 0,841 | 1,15 | 1780 |
| 66 | Ptice, Prague – West | 2121,2 | 1,240 | 0,891 | 0,8 | 1875 |
| 67 | Černošice, Prague – West | 5300,0 | 0,858 | 1,122 | 1,05 | 5354 |
| 68 | Statenice, Prague – West | 2490,0 | 0,843 | 1,5 | 1,05 | 3305 |
| 69 | Trnová, Prague – West | 3457,8 | 1,078 | 1,232 | 1,2 | 5511 |
| 70 | Chýně, Prague – West | 2365,7 | 0,916 | 0,968 | 0,85 | 1784 |

source: (own calculation)

Table 3: Regression Analysis of table 2

RESULT

| *Regression statistic* | |
|---|---|
| Multiplicati | 0,9067556 |
| Value of sig | 0,8222057 |
| Set.Value o | 0,8112645 |
| Avg. Value | 748,88118 |
| Subjects | 70 |

ANOVA

| | *Difference* | *SS* | *MS* | *F* | *ignificance F* |
|---|---|---|---|---|---|
| Regression | 4 | 168578387 | 42144597 | 75,147764 | 1,162E-23 |
| Rezidua | 65 | 36453497 | 560823,03 | | |
| Total | 69 | 205031883 | | | |

| | *Coefficients* | *g.value failu* | *t Stat* | *Value P* | *Bottom 95%* | *Top 95%* | *ottom 95.0%* | *Top 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Boarder | -8421,949 | 895,22087 | -9,407677 | 9,539E-14 | -10209,83 | -6634,07 | -10209,83 | -6634,07 |
| Price/m2 | 1,0415259 | 0,1008896 | 10,323423 | 2,474E-15 | 0,8400355 | 1,2430164 | 0,8400355 | 1,2430164 |
| Location ko | 3455,4047 | 436,96139 | 7,9078033 | 4,256E-11 | 2582,7326 | 4328,0769 | 2582,7326 | 4328,0769 |
| Acreage koe | 1603,6065 | 112,92677 | 14,200411 | 1,346E-21 | 1378,0762 | 1829,1369 | 1378,0762 | 1829,1369 |
| environmeta | 3262,6594 | 782,59317 | 4,1690364 | 9,235E-05 | 1699,7129 | 4825,6059 | 1699,7129 | 4825,6059 |

source: (own calculation)

Value of significance R - 0.8222057

Significance F < 0.05

## 4.2 APPRECIATION OF THE LAND BY USE OF PRICE MAP

In this part of thesis it is important to determine price of building plot. Object of interest is a building plot (no.400/110) located in Horoměřice in Prague - West. Acreage of this building plot is 691 m2.

Picture 1: Price map


source: (http://www.cenovemapy.cz/DownGlobButton.gif)

According to the picture above, which was captured from the price map of Hořovice, Prague - West, the price for building plot (no.400/110) is 2810 CZK per square meter. Price 2810 CZK has to be multiplied by acreage of the building plot which is 691 square meters. Calculation of total price by use of price map is then:

691 x 2810 = 1 941 710 CZK.

Given market price of this plot is 3290 CZK per square meter according to the advertisement which is 3290 x 691 = 2273390.

Difference between price given by advertisement and price map is 331680 CZK.

## 4.3 RESIDUAL METHOD

Main goal of using this Residual method relies on appreciation of land which should be built-up by construction in order to reach maximum possible benefit from its use. After that the building is finished, the total value of the property should be 10 000 000 CZK. On this land occurs old building intended for demolition. Necessary costs for demolition of this building are 500 000 CZK. Another 100 000 CZK need to be used to remove ecological burden. Territorial claim for this building plot is the possibility to be build-up only by one family house with maximum height of 2 floor. Cost calculation for construction of new family house is 3 500 000 CZK. Building costs are 350 000 CZK. Financial costs are 200 000 CZK. Other costs are 500 000 CZK. Developer calculate with gain of 15% from total costs. Time necessary for finishing the construction is one year. Acreage of this building plot is 950 m2.

Table 4: Residual Method

| | CZK | CZK |
|---|---|---|
| Value of finished realty | 10000000 | |
| Demolition | | 500000 |
| Removing ecological burden | | 100000 |
| Mobilization costs | | 3500000 |
| Financial costs | | 200000 |
| Other costs | | 500000 |
| Total costs | | 4800000 |
| Profit of developer is 15% from total costs | | 720000 |
| Value of land to date of finish | | 4480000 |
| / interest | | (1+01) |
| Value of land by use of Residual method | | 4072727 |
| Price of land/m2 | | 4287 |

source: (own calculation)

## 4.4 DEVELOPMENT OF LAND RESOURCES AFTER 2004

Price of agricultural land is slightly increasing. Approximately 3% of agriculture land resources in the Czech Republic is traded annually and besides, some grounds (small part according to traded grounds) are transfered for free in form of heritage or gifts. Market prices of grounds which are sold, recorded light increase in prices as well as rent prices from renting agricultural land.

There was a raising trend of Market prices of agricultural land in 2009. Average price of agricultural land has increased by 53% between 2003 and 2009. Between years 2008 and 2009 the price of agricultural land has increased by 14%. Expectation, that after accession of the Czech Republic the EU, the prices of agricultural land will increase was proven wrong. Although, we can expect gradual increase in prices of agricultural land in the future.

Loss of arable land continues. Total acreage of agricultural land in 2009 has decreased according to the previous year 2008 by 0,1% which corresponds with approximately 5000 hectares. Annual loss of agricultural land between years 1990 and 2000 was approximately 1000 hectares. Annual loss of agricultural land since 2000 to 2004 was approximately 4000 hectares. Since 2005 annual loss of agricultural land is 5000 hectares per year.

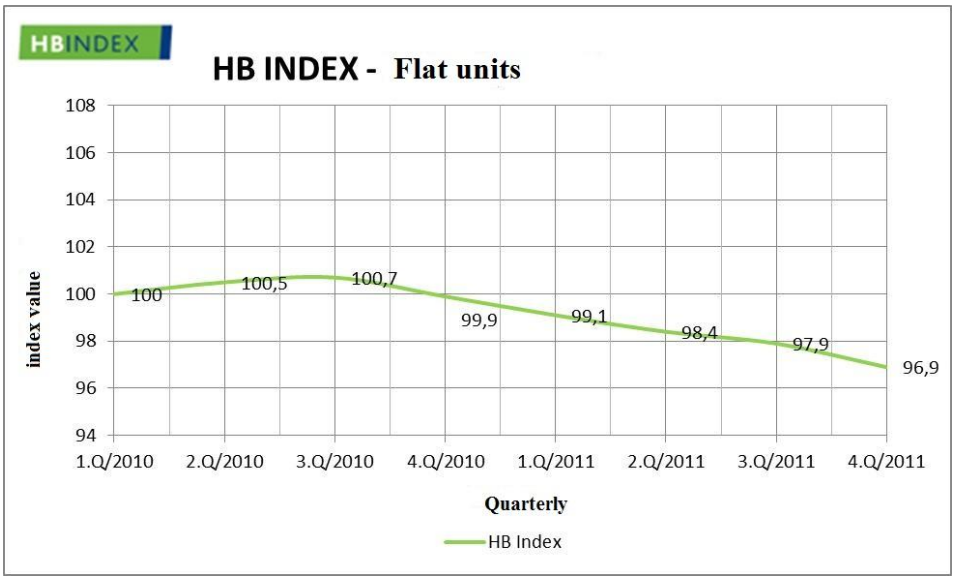
Agricultural land resources annual loss in 2009 consisted mainly of acreage reduction of arable land by 9000 hectares, which was about 2000 hectares more, than in previous year 2008. There was a shift in 2009, 3000 hectares have changed their state from arable land to the culture of permanent grassland, 2000 hectares were moved from arable land to forest land, 3000 hectares were shifted from arable land to category of built-up and other areas. Acreage of gardens and water areas is also increasing in rate of few hundred.

## 4.5 REAL ESTATE HB-INDEX TREND ANALYSIS

Prices of real estate on residential real estate market remain without greater changes. It results from HB-index according to real estimates of real estate market prices. HB-index is made by Mortgage Bank (Hypoteční banka). HB-index follows development of real estate

in the Czech Republic in 3 categories which are Flats, Family houses and Grounds. Index value of 100 is set to date 1.1.2010. HB-index regularly brings information about real estate market prices containing real market prices of real estate, which where purchased through mortgage loans. In contrary of statistics based on supply prices, HB-index provides appropriate outline of realized transactions in field of real estate market.

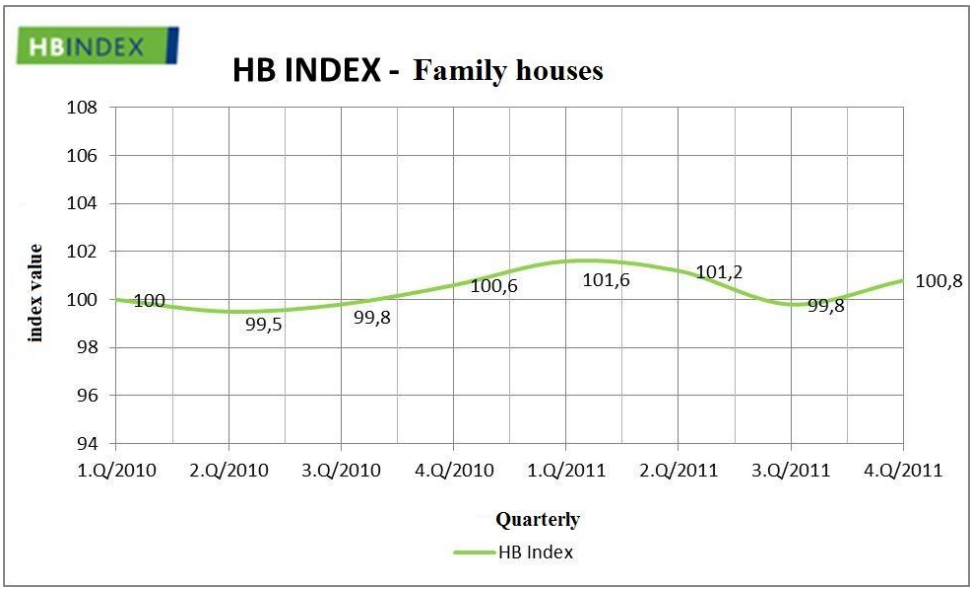
Chart 1 : Hb-index of flat units (Flat units : HB index 4Q 2011)




source: (http://www.hypotecnibanka.cz/o-bance/pro-media/tiskove-zpravy/item:751/)

The chart 1 above outlines light decrease of prices of flats, which was caused mainly by higher supply compared to demand. This situation is mostly visible in Prague. Prices of flats in new houses were decreasing less compared to flats in old houses. In all regions there was significantly greater decrease of prices compared to Prague. The situation of flats on real estate market is generally stable.

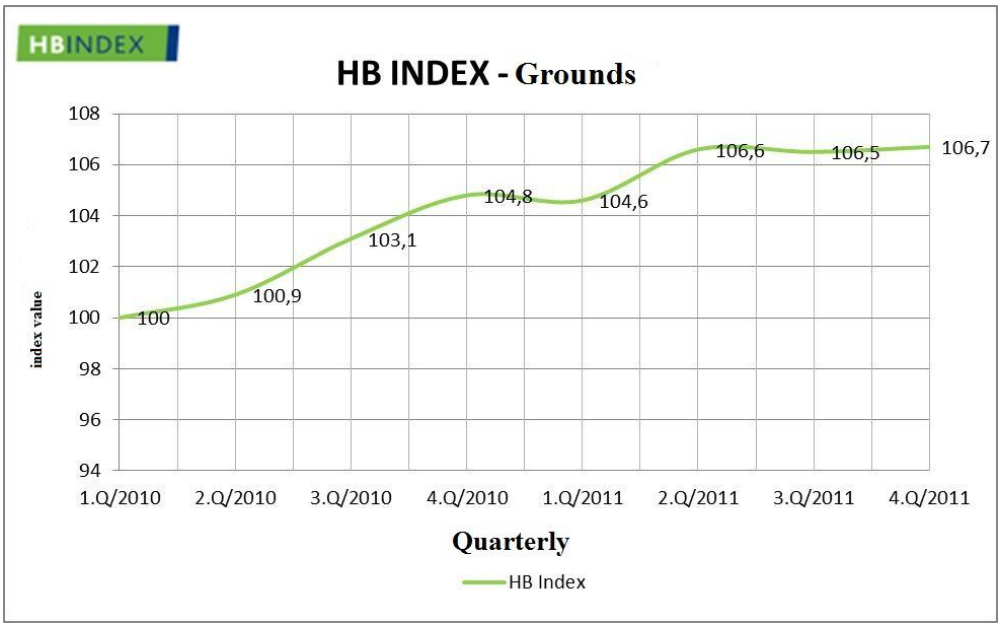
**CHART 2: HB- INDEX FAMILY HOUSES(**




source: (http://www.hypotecnibanka.cz/o-bance/pro-media/tiskove-zpravy/item:751/)

Chart 2 outlines information about price changes according to family houses. In last quarter of 2011 prices of family houses were slightly increasing but in general they were stagnating. According to old family houses the demand trend were increasing, which was caused by low mortgage interest tax. Significant decrease in interest of developers to build new projects in Prague and near area was recorded. However, in other regions supply and demand remain stable. Value-added tax which increased compared to previous year has no practical effect on prices of family houses.

Chart 3: Grounds (HB-index)




source: (http://www.hypotecnibanka.cz/o-bance/pro-media/tiskove-zpravy/item:751/)

According to the table above it can be said that prices of grounds in the Czech Republic were stable in long-term with slightly increasing trend. Grounds are the only one segment where prices rose annually compared to previous years. They are actually perceived as good opportunity for investment. Higher demand is for locations around big cities. Demand trend for cities with low infrastructure has decreasing trend of interest.

# 5 CONCLUSION

Conditions for developing market economy an also real estate market began sympathetic after 1989. On the other hand, the huge dynamic changes occur in terms of view on real estate as such, on their properties, parameters, functionality, efficiency, architecture, and a number of other criteria. The Czech Republic has entered EU in 2004. There was an expectation of huge income of demand for grounds from abroad which should be solve by ban regulation for selling grounds to foreigners valid through 2011. Situation after 2004 regarding the development of land resources in the Czech Republic indicate slightly increasing trend of agricultural land price. Approximately 3% of agricultural land resources is traded annually. Market prices of sold grounds recorded light increase as well as rent prices from renting agricultural land. Average price of agricultural land increased by 53% between 2003 and 2009. In the last year from 2008 to 2009 the price of agricultural land has increased by 14%. We can expect this increasing trend also in the future. The most important Parameters relevant for land valuation are location, acreage and also the purpose of use.

In the thesis the comparative method is used in order to valuate benefits of building plots from set 70 of grounds, which all have utilities such as pipeline, water, electricity and canalization. These building plots are suitable for construction of family house. Using factor coefficients (location, environment, acreage) the input market price was adjusted according the need to choose the one, which has the best adjusted value for purpose of building a small family house. The lowest adjusted price and also the best value obtained building plot no.23 in Horoměřice (1582CZK/m2). Another method used in the thesis was the method of valuation by use of price map. Recorded price in price map of the building plot of 691m2 which has obtained higher rank by using comparative method is located in Horoměřice. Its 2810 CZK per square meter is in total 1 941 710 CZK. Owner of this land is trying to sell it for 2 273 390 CZK. In this case the price recorded in price map is only illustrative.

Analysis of real estate prices development according to the data from HB-index evaluates price trends of flats, family houses and finally for grouds. In the short prices of flats have decreasing price trend, which is continuous from third quarter of 2010 (100,7%) to present(96,9%). HB-index for family houses indicates slightly fluctuating trend which is on the other hand stable. There is increase of demand for old houses. HB-index for Grounds has as the only one stable increasing price trend year by year. From the first quarter of 2010 (100%) to the fourth quarter of 2011 (106,7%)

# 6 BIBLIOHGRAPHY

Bradáč A., Fiala J., *Nemovitosti oceňováni a právní vztahy* 3. přepracované a doplněné vydaní, nakladatelství Linde Praha, ISBN 80-7201-441-2.

Dušek D., *Základy oceňování nemovitostí*, vydavatelství Oeconomica, Praha, 2011, ISBN 978-80-245-1818-3.

Němec, J., *Pozemkové právo a trh půdy v České republice*, Praha, vydavatelství Výzkumný ústav zemědělské ekonomiky Praha, ISBN 80-86671-12-7.

Zazvonil Z. *Oceňování nemovitostní na tržních principech*. Praha, CEDUK, 1996. ISBN 80-902109-0-2.

Zazvonil Z. *Výnosová hodnota nemovitostí*, Praha, CEDUK, 2004, ISBN 80-902109-3-7.

Internet sources:

http://www.agroweb.cz/zpravodajstvi/Cena-zemedelske-pudy-pomalu-roste__s43x47019.html

http://www.hypotecnibanka.cz/o-bance/pro-media/tiskove-zpravy/item:751/

http://www.cenovemapy.cz/DownGlobButton.gif