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**The impact of deregulation on market rents in Prague**

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Abstract

This article deals with the influence of the legal process of deregulation of rents on the rental housing market in Prague in the period 2012 – 2013, at a time when at 31st December 2012 deregulation came into force in Prague. Expectations of potential impact on the whole market rent housing was studied on statistic file of completed tenancy relations in Prague between unrelated parties and under market conditions. There was not find any effect of deregulation process on the level of rents in Prague in the time period of 24 months in 2012-2013.

Keywords

Housing policy, Market Rent, Deregulation, Prague Residential Market

Introduction

Rental housing is, after the owner-occupied housing, the second most common form of housing in the Czech Republic. Generally, rental housing could be divided into the private rental sector and public sector, which is known as the social sector.

In the Czech Republic, the nonprofit sector is also referred to as community, because these flats are mostly owned by municipalities and other institutions owned by state.

Rental housing sector has a greater percentage of households with lower and middle incomes than for residential property owned by its users. Rental housing in the Czech Republic is preferred rather young people, allowing them to react more flexibly to change of living conditions. This type of housing is located mainly in bigger cities in apartment buildings (more than 3 flats in building).

On the rental housing market in the Czech Republic, there were two sub-markets - regulated and deregulated. Both markets differ from each other in several ways, of which the most important aspect is very different possibilities for setting rents. This situation is mostly due to the historical development of rental housing.

The price for the use of a rented flat will vary based on certain factors. From location, technical condition, flat floor area of the apartment and accessories, environmental influences, maintenance costs, the amount of property taxes, the selling price of other real estate and other.

Impact of effect of deregulation of rent were examined at the Institute of Sociology AVČR in the project *Analysis of housing policy aimed for workforce flexibility*. Although it is not easy to determine the degree of mutual dependency between the housing market and the labor market because they affect each other, the team arrived at on the basis of surveys, the following findings:

There was impact of tenure of housing (also the significance of the impact of the type of rent paid) intended to migrate for work in the event of unemployment. According to the results of the regression model that analyzes the factors having a significant impact on the planned migration for work at one time, are significantly more willing to move for work in the event of unemployment, people living in temporary forms of housing, people living in the private and public rental housing; on the contrary, significantly fewer are willing to take for the situation to move people owning or co-owners of the family home [1].

Respondents who were in survey for deregulation of rents, correspond to those groups that are most affected by regulation - young people in cities or who are planning to move there in search for job, unable to obtain rental housing for regulated rent and are forced to pay higher market rents. Capital city of Prague, which provides most jobs, is also the most expensive city (in rent comparison) in Czech Republic. There were also the largest number of flats with regulated rents in Prague and the difference between regulated and market rent is the largest in the country.

Prague - Housing Fund, Housing Structure users

A census of houses and apartments in 2011 there were identified in Prague nearly 100,000 buildings for a living, which is an increase of 12% compared with the previous census ten years ago (2001). The number of inhabited houses between 2001 and 2011 increased in 56 of 57 districts, only exception was the Prague 1. The largest increase in the number of houses were recorded in the districts on the eastern outskirts of Prague (more than 500 houses were added in Prague 21 and Prague 22). City District Prague-Křeslice then experienced its strongest relative increase in housing stock (about 194%). This fact can be clearly explained by the massive buildings of residential houses both in development projects and individually housing (especially single-flat houses).

Age of the housing fund in Prague is above average (according to the Population and Housing Census 2011 reached 53.3 years) and the capital city is highly variable. While in the districts of Prague 1 and 2 are houses designed for living an average of nearly 100 years old, in the outskirts of Prague-Újezd, Prague and Prague-Březiněves-Křeslice average age of houses less than 30 years. This variance is due to the age and the volume of construction in recent years understandable.

In terms of ownership, it can be confirmed continuing trend of living in own homes (houses & apartments). This trend was influenced by two factors:

* The continued privatization process of the housing fund, especially in the urban area, thus shrinking the number of apartments and houses owned by the municipality (and therefore increasing share apartments owned by its users mostly former tenants.
* Continuing (and amplifying) trend towards residential development projects, especially in the outskirts of Prague (cheaper sites), along with reconstruction, respectively construction of individual residential buildings throughout the city center.

The main trend in the ownership structure of Prague's housing fund in the last decade was continuing growth in ownership living, especially compared to the rental sector. While in 2001, rental apartments housing stock was counted for less than half (47%), in 2011 approximately only one third (34%). From the geographical point of view is relatively highest share of privately owned apartments in the suburbs, especially the eastern parts of the capital, which is characterized by a bigger proportion of family homes (single or double flat), this fact is due to a massive construction of family houses, which were subsequently sold mainly to current owners.

The lowest percentages of dwellings in private ownership is registered in the central districts (Prague 1, 2, 3 and 7), which still remains a significant amount of the lease form of housing.

Process of deregulation of rents in Prague

After years of attempts to cancel regulation of rents came at the end of March 2006 law on unilateral increases in housing rent (no. 107/2006 Coll.) (Hereinafter as a “*Law*”). This Law enabled gradual deregulation within Czech Republic with Prague as to be the last city. From 1. 1. 2011 ended deregulation in selected municipalities in late 2012 ended in the rest of municipalities, including Prague (specifically, the second phase included Prague, Central Bohemia Region municipalities with a population of 1 January 2009 more than 9999 cities and Czech Budejovice, Plzen, Karlovy Vary, Liberec, Hradec Kralove, Pardubice, Jihlava, Brno, Olomouc and Zlín).

The deregulation process was extended because of rising prices of residential real estate, the average amount of the calculated coefficients for calculating rent. The main argument was excessive burden on households and therefore socially unbearable cost of housing for lower income households.

According to the Law increases of the rent must be agreed with the landlord to the tenant rents (The initiative must come from the landlord). In case that that landlord and tenant can´t find mutually agreed rent, it´s up to the court to decide (The initiative must come again from the landlord).

It can therefore be stated that regulation is at present already resolved, respectively it is currently solved by the competent public authorities. According to the analysis “Income and Living Conditions for 2014” prepared by the Czech Statistical Office is for 2014 only 1.4% of households (in whole country) in reduced rent. This includes the so-called sheltered and social housing for disadvantaged groups.

Hypotheses

In the context of coming deregulation was to a certain group of citizens expected negative impact of deregulation on the overall rental housing market in Prague. These opinions (expectations) were regularly published in mainstream media in Czech Republic and were also supported by group of politicians (mostly left wing).

These expectations are formulated in two hypotheses.

Hypothesis 1:

*Deregulation will affect the amount of market rent which after deregulation increases sharply;*

Hypothesis 2:

*After deregulation remains a large number of empty apartments with larger floor area and increasing interest in small flats*.

Sample file

Sample is defined in geographical territory as area of Prague District (City center, inner & outer city including suburbs). The Deregulation process was started on 1st January 2013.

Time period was chosen for 24 months with deregulation date in the middle, from 1st January 2012 till 31st December 2013.

There are some sources concerning residential rents in Prague in the following time period:

1. The Index of rent development regularly monitored by the Czech Statistical Office as part of the monitoring of inflation. These data (according to the methodology [7]) comes from reporting obligations of larger lessor having rent apartments (and commercial spaces, fenced areas, etc.) as the subject of its commercial activity. These data are of course anonymized. Outside the index (which are represented by the average values) there are no further information on rents.
2. It is possible to trace the ads for rent a flat for housing in the reporting period. But these offers represent not only one side of the process (lessor/landlord) and therefore pricing information may not always match the real situation.
3. Commercial Company “Institut regionálních informací” (Institute for regional information) creates long-term index of rental level for standardized flat in locations across Czech Republic. These data were used by expert reports and as wall as were base for map rents run by Ministry of regional development, in the past, creating the so-called. Map of rent for the Ministry for Regional Development [8]. At a deeper study of the methodology [5], however, it has to be noted that the input data from this database came from the advertisement and again represent only one side of the process (as in the previous point).
4. There larger amount of sources/ indices involved in monitoring the purchase prices of housing (apartments, houses). This data can be achieved easily, because the all the purchase agreements are publicly available at the relevant cadaster office. However there is not possible to say that there exists a direct correlation between the market value of the property and market rent for this kind of property (Prague can expect a lower return-to-value (i.e. Yield) of property than for example property in the Moravian-Silesian region).

Thus, the above options do not provide relevant data, which might be used. Based on long-term cooperation, there was possibility to obtain data from the database reputable real estate agency, which work on the franchise principle. This group keeps data from the past for their own purposes (e.g. determination of the provision etc.).

Rents closed in cooperation with real estate agency certainly does not cover the entire rental housing market, but such data can be regarded as relatively credible. Due to the fact that service of real estate agency is paid, it is highly expected that rent relations closed with help of real estate agencies correspond to market conditions.

Collected data cover only a part of segment (rents closed on market conditions) and does not include dwellings owned by municipalities and state institutions.

The expected hypothesis were studied in terms of:

1) The amount of the rent per sqm of floor area of the rented flat.

2) The volume of transactions in the reporting period (closing rents).

Basic statistical characteristics

The obtained file has 1 361 samples, each of which is primarily monitored by 23 parameters. Most of these characters are used only for identification of the database owner.

To test the above hypothesis were allowed following parameters:

• Number of rooms (dispositions);

• The date of closing (rental agreement;

• Type of Property (type of apartment building);

• State of property (divided into 5 class);

• Closed rental price (the agreed amount of rent per flat and month);

• Floor space of leased apartment (without balcony & cellar);

• closed rental price per sqm of floor space & month;

• Part of the city quarter in Prague;

• Street;

All parameters were entered into the system manually. Identifications of the rented apartments is not possible.

Below the table is a primary statistical characteristics according to parameter *Rents per sqm floor area* for the entire period.

Table No 1: Basic statistical characteristics of the sample in parameter rent per sqm & month (CZK)

|  |  |
| --- | --- |
| Arithmetic average | 188,6 |
| Modus | 166,67 |
| Median | 179,49 |
| 25 quartile | 152,37 |
| 75 quartile | 212,87 |
| MIN | 66,67 |
| MAX | 600 |
| File sample variance | 3017,46 |
| Sample file deviation | 54,931 |
| Skewness | 1,70 |
| Kurtosis | 6,03 |

Based on these characteristics, it can be concluded that the data are relatively steady (close to the average, median and modus). These characteristics are then processed for separation of time before and after the date of deregulatory process.

Similarly, the processing of basic characteristic for the parameter *Floor area* of rented apartment (now apart from the fact that space with an area of 12 sqm can be in terms of hygienic rules, considered a dwelling unit).

Table No 2: Basic statistical characteristics of the sample in parameter floor area (sqm)

|  |  |
| --- | --- |
| Arithmetic average | 61,5 |
| Modus | 50 |
| Median | 55 |
| 25 quartile | 43 |
| 75 quartile | 75 |
| MIN | 12 |
| MAX | 352 |
| File sample variance | 803,07 |
| Sample file deviation | 28,339 |
| Skewness | 2,1696 |
| Kurtosis | 12,18 |

In the reporting period was the most rented apartments with an average size of about 50% and by frequency parameter disposition 2 + kk/2 + 1 (2 living rooms+ kitchen).

This parameter will again be subject to examination for the two periods, which are divided in the middle date of deregulation.

Hypothesis # 1

*Deregulation will affect the amount of rent that will increases sharply after deregulation*;

The amount of rent per sqm for reference time period were averaged for each month to suppress the volatility of individual samples and also determine the number of samples (i.e. leasing transactions carried out in a given calendar month, see *Table no. 3: Average monthly rents for the period)*.

Table No 3: Average monthly rents for the period

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | I.12 | II.12 | III.12 | IV.12 | V.12 | VI.12 |
| Rent (CZK/sqm/month) | 182,7 | 204,2 | 185,4 | 191,9 | 189,5 | 171,0 |
| No of transactions | 41 | 37 | 56 | 44 | 57 | 61 |
|  | VII.12 | VIII.12 | IX.12 | X.12 | XI.12 | XII.12 |
| Rent (CZK/sqm/month) | 184,2 | 197,1 | 199,2 | 204,6 | 198,5 | 176,6 |
| No of transactions | 55 | 62 | 67 | 84 | 60 | 50 |
|  | I.13 | II.13 | III.13 | IV.13 | V.13 | VI.13 |
| Rent (CZK/sqm/month) | 187,6 | 189,8 | 183,9 | 184,6 | 185,4 | 177,1 |
| No of transactions | 57 | 56 | 37 | 51 | 36 | 44 |
|  | VII.13 | VIII.13 | IX.13 | X.13 | XI.13 | XII.13 |
| Rent (CZK/sqm/month) | 172,4 | 192,0 | 190,9 | 190,6 | 189,2 | 186,4 |
| No of transactions | 64 | 0 | 56 | 89 | 57 | 70 |

The resulting average values shows that more activity (represented by the number of concluded lease transaction) took place more in the second half of the calendar year in both 2012 and 2013, although it was in 2013 in terms of number of transactions more active.

At the height of the average rent per sqm of floor area are more noticeable slightly higher rental levels in the autumn and winter in both years. The resulting differences are very slight.

In the area of Prague can be considered the rental housing market as balanced. The market offers a sufficient number of flats to rent and similarly so through work (and other) opportunities and sufficient number of potential tenants.

The increased number of transactions during the winter for both monitored years can be explained by seasonality caused by students and some staff due to the larger number of institutions in Prague. Another argument may be a state of potential tenants to solve their situation after a summer holiday, this phenomenon is also evident in other activities in the commercial sector (e.g. acquisitions and transformations of companies etc.).

Said number of transactions, however, does not confirm the fact that, in connection with the approaching date of deregulation were reported dramatic changes in the number or the amount of rent in both directions.

The amount of rents with regard to these monthly average rents and little difference can be consider as negligible. Although the maximum monthly average rent (204 CZK per month & sqm) for the time period was achieved in December 2012 (before deregulation date), it is not expected that this was caused by this change. Conversely, the lowest level of rent (171 CZK per month & sqm) was recorded in June 2012, six months prior to deregulation for the state when it was known that deregulation will start at the exact date.

Graph No 1: Rent development per sqm (individual samples)

The graph above show high volatility of the various standard and location in Prague. But from the graph it is clear that the value does not significantly differ through the time period.

Graph No 2: Rent development per sqm (monthly averages)

Based on the above mentioned data Hypothesis No 1 was not confirmed.

Hypothesis # 2

*After deregulation remains a large number of empty apartments with larger floor area and increasing interest in small flats.*

The subject of examination will be the parameter average floor area of rented apartment.

Table No 4: Average apartment floor area in months for the time period

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Months | I.12 | II.12 | III.12 | IV.12 | V.12 | VI.12 |
| Avg. Floor Area | 64,5 | 55,6 | 58,2 | 61,2 | 63,6 | 69,9 |
| Months | VII.12 | VIII.12 | IX.12 | X.12 | XI.12 | XII.12 |
| Avg. Floor Area | 67,6 | 58,4 | 55,2 | 57,1 | 61,4 | 62,9 |
| Months | I.13 | II.13 | III.13 | IV.13 | V.13 | VI.13 |
| Avg. Floor Area | 60,0 | 60,2 | 60,9 | 66,7 | 62,8 | 56,4 |
| Months | VII.13 | VIII.13 | IX.13 | X.13 | XI.13 | XII.13 |
| Avg. Floor Area | 63,3 | 64,6 | 64,9 | 58,2 | 62,6 | 60,9 |

Graph No 3: Development of apartment floor area in time period (transactions)

Similarly, as in parameter *rent per sqm* could be seen high volatility of inputs (especially the three extreme values in the first half of the period). But no major fluctuations are sweltering even some data or deregulation during the reporting period.

For a chart compiled based on monthly averages can compare some swings in both directions, but without any appreciable effect around the data in the middle of the reference period (deregulation).

Graph No 3: Development of apartment floor area in time period (monthly average)

Sample file contains closed lease contracts (both transactions side met). It cannot be proved, that there is a stronger demand for small floor area apartments, which however are not in sufficient amount in Prague housing fund. Residential development in ca last ten years was focused on the construction of new apartments of disposition 1 + 1 (living room & kitchen) with a floor area of about 50 sqm) [2].

Conclusion

Based on the expressed hypotheses and using basic statistical values on limited sample of transactions in the time period the capital city of Prague, I would like to state that neither voiced hypothesis was not true.

However it must be noted that the statistical sample size of its cover even 10% (projected) lease transactions in dwellings in the capital city of Prague. The actual number of concluded lease transactions is unknown because there is no obligation in statistics.

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