

## IV. Housing and the housing market

Housing conditions, acquisition and use of dwellings can be analysed from various angles. This analysis takes the view of housing as a market which has several distinct specifics:

- **Regional differences.** The market shows significant regional differences stemming from the fact that dwellings are fix-located, they cannot be moved according to demand; similarly, demand for dwellings is regionally not sufficiently flexible because Czech people traditionally do not like moving. (An analysis of regional differences is not the subject of this treatment.)
- **Investment vs. rent.** There are two basic, to a certain extent mutually competing alternatives of satisfying demand for dwellings. Both have their pros and cons, depending inter alia on the amount and distribution of costs of dwelling acquisition and use.
- **Tendency towards living in owner-occupied dwellings.** The rapidly growing percentage of owner-occupied dwellings is a clear-cut trend of the last seventeen years. The results of a recent survey<sup>1</sup> say that only 25% of households live in tenement houses, which is unique also in international context.
- **Quality of housing.** The quality of housing has undoubtedly been improving; relevant for this analysis is the marked increase of living floor area per capita. According to the aforementioned survey, it has reached 30 m<sup>2</sup>, whereby the Czech Republic is not far from west European countries.
- **Extraordinary growth of prices.** The prices of dwellings and rents grew substantially sharper than consumer prices. The costs of housing were thus a rapidly increasing item of household expenditures.
- **Psychological aspects.** On the side of demand the housing market was strongly influenced by psychological aspects such as the fear of losing rented accommodation, invariably rising rents and prices of new dwellings, or impact of advertising.
- **Purchase of dwelling as an investment.** Considering the trend of prices and investment rates, investment in dwellings appreciated much more rapidly than, for example, deposits at banks.

This analysis covers the period up to 2006, in certain cases up to 2007.

### Supply of dwellings

**Numbers of completed dwellings** represent the basic information. **Before 1990** the annual numbers of completed dwellings grew rapidly and peaked in 1975, then decreased. **After 1990** the number diminished and reached an all-time low in 1995. Then they grew moderately and are around 30 thousand a year in last years.

**Dwelling decreases.** The numbers of completed dwellings do not show the real increase in supply. They have to be adjusted for decreases which include liquidation, change of use and changes in dwelling stock registration.

The dwelling decreases **up to 1990** had many reasons, among them was the massive movement of rural population to towns; dwellings left especially in small municipalities were no more used for permanent housing. **After 1990** decreases were recorded caused by conversions into non-residential commercial spaces, administrative changes in the classification of some buildings – spaces were re-registered back as dwellings for permanent housing, and other changes. The results of supply defined in this way are rather different to the numbers of completed dwellings.

**Additional supply. In the 1990's**, 243 thousand completed dwellings were recorded. According to a CZSO estimate, no more than 100 thousand dwellings were wasted over the same period, so that the net increase should have been 143 thousand, but the Population and Housing Census 2001 counted a net increase of 289 thousand dwellings. According to the CZSO survey<sup>2</sup>, the discrepancy amounting to 146 thousand dwellings was due to the following reasons:

- 60 – 65 thousand dwellings are dwellings used solely for recreation, though they meet the conditions of permanent housing
- 20 – 25 thousand dwellings were returned to permanent housing through construction enhancements
- 15 – 20 thousand dwellings were obtained by declaring more dwellings in a family house
- 35 – 40 thousand dwellings were counted for other reasons, e.g. after restitution

Roughly a half of the total discrepancy is due to administrative changes and the other half to construction enhancements which represented **physical** increase of the dwelling stock. The fall in the numbers of completed dwellings in the 1990's was thus partly compensated for by construction enhancements which produced about 70 thousand dwellings.

In the same period (1991–2001), 539 thousand **unoccupied** dwellings were registered; however, they cannot be considered as dwellings ready for immediate moving in for the following reasons:

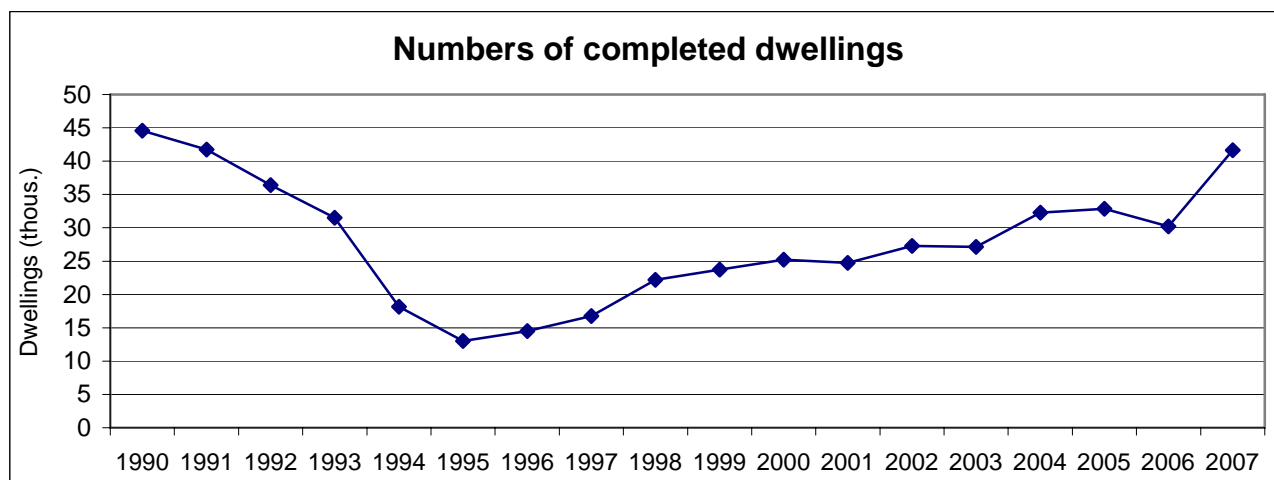
- 175.2 thousand dwellings were used for recreation, especially those in small municipalities
- 117.2 thousand dwellings were used for temporary housing, mainly in large towns
- 53.2 thousand dwellings were unfit for permanent housing
- 83.2 thousand dwellings were temporarily unoccupied due to reconstruction, outstanding restitution issues, etc.

Yet nearly half of the permanently unoccupied dwellings could have served permanent housing (or even did serve).

<sup>1</sup> Household Income and Living Conditions in the Czech Republic 2006, CZSO 2006

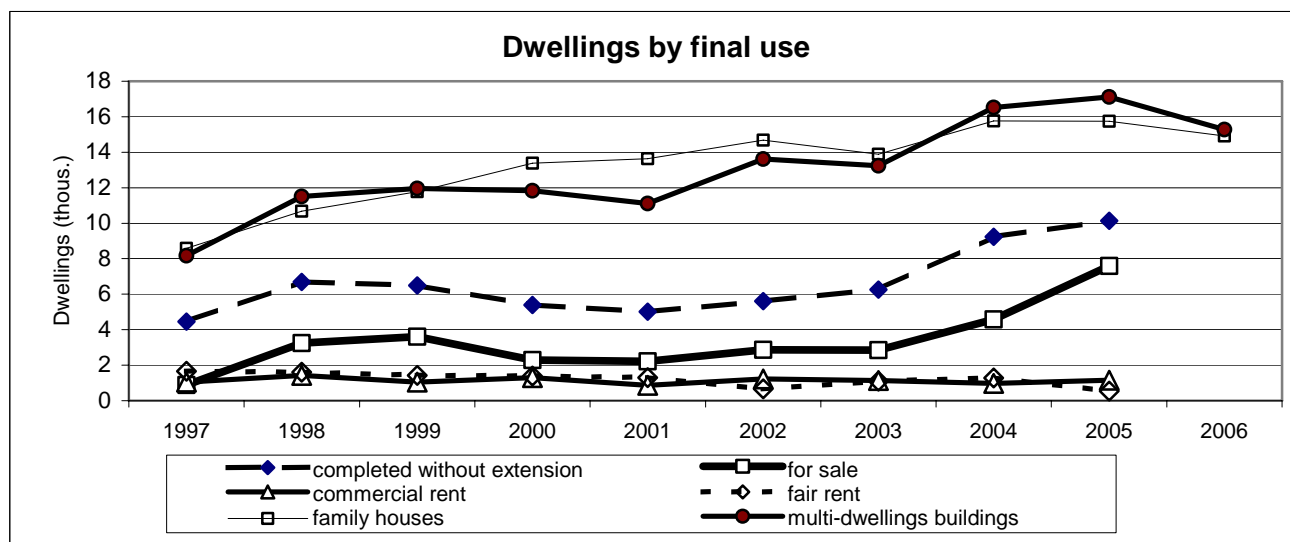
<sup>2</sup> Population and Housing Census 2001, source publication, chapter 12 Dwelling stock, CZSO 2005

We can sum up that not many new dwellings were completed in the 1990's, but real – or at least potential – supply was considerably higher, the market adapted to the situation. No correcting information of this kind is available after 2001, it will be known after the Population and Housing Census 2011. It is just a matter of speculation that the facts found in the decade 1991–2001 on changes in supply caused by other factors than new construction are unlikely to appear again in the current decade. And if so, it will definitely not assume such big proportions. The numbers of completed dwellings grew, so that the increase could compensate for the probable decrease of alternative forms of additional supply of dwellings.



**Quality of dwellings.** An in-depth analysis would require an observation of the age and quality of dwellings and last but not least the regional distribution of dwellings. This treatment will be confined to a single, in this context relevant factor – the number of persons per dwelling has been decreasing, which raises the quality of housing. While according to the Population and Housing Census 2001 the average person had available a floor area of 27.7 m<sup>2</sup>, the above-mentioned CZSO survey in 2006 found 30 m<sup>2</sup> per person, which is a significant improvement enhancing also the international position of the Czech Republic. Just for comparison: floor area per person in Austria is 38.4 m<sup>2</sup> (2003), in Germany 40.1 m<sup>2</sup> (2002) and in France 37.5 m<sup>2</sup> (2002)<sup>3</sup>. However, the same CZSO survey produced also some less encouraging results: for example, respondents in a quarter of households think they live in a damp or dark dwelling.

**Type of building and final use.** Further we shall analyse the number of **completed** dwellings by type of building and final use. Whereas **up to 1990** the overwhelming majority of completed dwellings were those in prefabricated buildings owned by cooperatives (housing associations), **since 1991** dwellings completed in family houses have been more numerous than dwellings in multi-dwelling houses, although these exceeded 10 000 a year in last years. (In general, the percentage of dwellings in extensions grew). Nevertheless, the highest and still growing share in the total number of dwellings completed in multi-dwelling houses had dwellings intended for personal ownership; the **percentage of dwellings for commercial or fair rent was relatively low**. While according to the aforementioned CZSO survey (see footnote 1) the percentage of households in rented accommodation was 25% in 2006, in the countries like Austria, Germany, France or the Netherlands 50–70% of households not exceeding 60% median income lived in rented accommodation; the situation in the south-European countries is somewhat different<sup>4</sup>.



<sup>3</sup> Housing Statistics in the European Union, 2004

<sup>4</sup> Housing Statistics in the European Union 2005/2006, Min. of Infrastructure, Italy 2006

These changes in supply (percentages would be even more distinct) certainly have their underlying causes and effects, which will be analysed in detail below.

## Demand for dwellings

In contrast to the proverbial “rolls”, the measurement of demand for dwellings is rather more complicated; we shall approach stepwise. In doing so, the period covered will only be **after 1990**.

### Demographically defined “demand” in the period after 1990

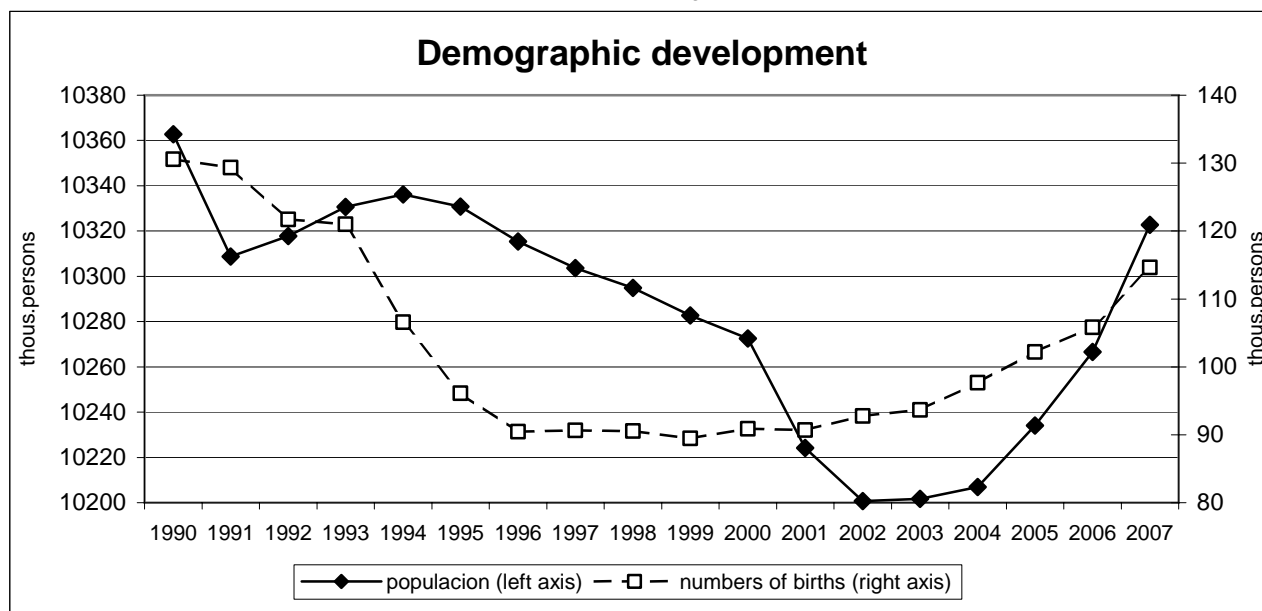
- **Changes in the population size** provide initial guidance. Within the first approach let me admit that after 1990 they follow a similar curve as numbers of completed dwellings – they fall, and increase only after 2002.
- **Changes in numbers of births** may be an even more convincing proxy variable. The numbers of live births decreased up to 1999 and then rose.
- **Changes in numbers of households** are certainly the best indicator; data, i.e. unavailability of the time series<sup>5</sup> poses a problem. Nevertheless, “demand” defined like that grew also in the 1990’s when the two previous indicators fell.
- **Changes in so-called construction intensity** are likewise a suitable indicator and at least they indicate an improvement of supply relative to the size of population over last years (also in international comparison), but it is uncertain if also relative to the number of households demanding dwellings.

### Construction intensity

|                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 20003 | 2004 | 2005 | 2006 | 2007 |
|----------------|------|------|------|------|------|------|-------|------|------|------|------|
| Czech Republic | 1.63 | 2.15 | 2.31 | 2.45 | 2.42 | 2.68 | 2.66  | 3.16 | 3.21 | 2.94 | 4.03 |
| Germany        | .    | .    | .    | 5.1  | .    | .    | .     | 3.4  | .    | .    | .    |
| Netherlands    | .    | .    | .    | 4.7  | .    | .    | .     | 4.0  | .    | .    | .    |
| Austria        | .    | .    | .    | 6.6  | .    | .    | .     | 5.2  | .    | .    | .    |
| France         | .    | .    | .    | 6.3  | .    | .    | .     | 5.8  | .    | .    | .    |

Note: Numbers of completed dwellings in a given year per 1000 mid-year population

Source: International comparison for 2000 and 2004 from Housing Statistics in the European Union, 2004



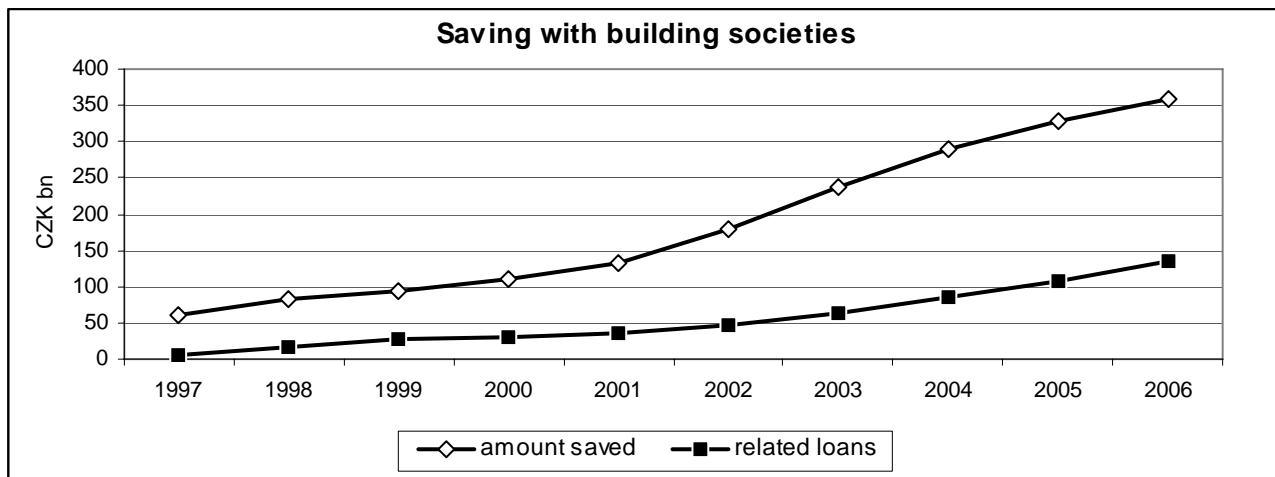
**Effective demand** for dwellings, however, has to be based on financial resources. It is clear that the acquisition of an owner-occupied dwelling is an investment, not a current expenditure item. An alternative to such an investment may be, under certain conditions, the hire of a dwelling.

<sup>5</sup> The Population and Housing Census says that there were 3 984 thousand households in the Czech Republic in 1991 and 4 216 thousand households in 2001, i.e. an increase of 230 thousand over a ten-year period.

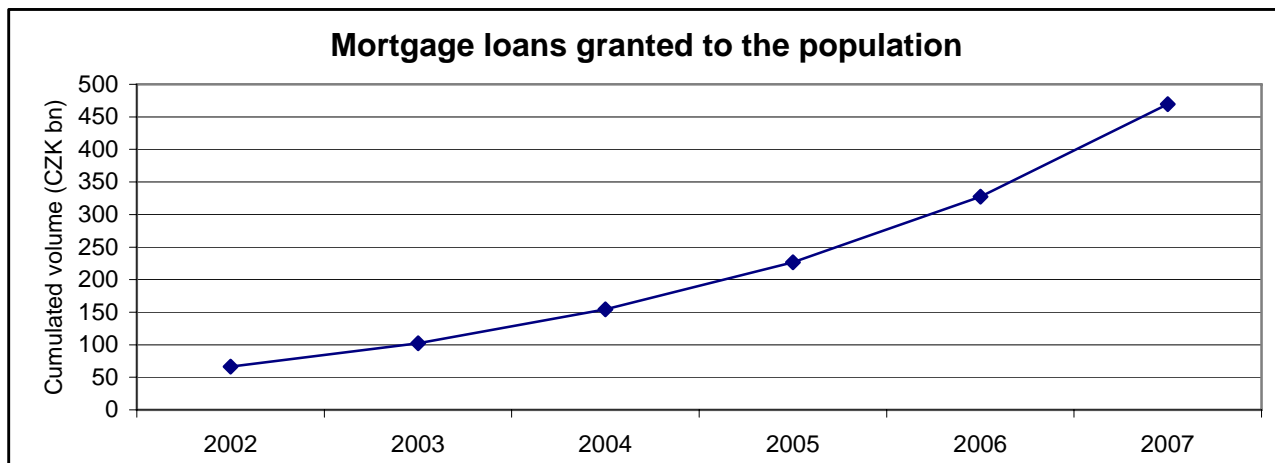
**Investment demand.** The acquisition of owner-occupied dwelling is an investment many times exceeding the annual income of the majority of the population and the average amount of savings as well. In spite of that, investment demand in last years grew rapidly:

- **The amount of the saving with building societies** increased six times over last ten years, from CZK 60 billion in 1997 to CZK 360 billion at the end of 2006. Tied to it were housing loans (incl. bridging loans) which rose incredibly from CZK 6 billion to CZK 135 billion over the same period. (In 1997 they made up roughly 10% of the amount of the saving with building societies and in 2006 already 37.6%.)

- **Mortgage loans.** The cumulated amount of the principal of mortgage loans granted to citizens grew from CZK 68 billion to CZK 469 billion over last five years (2002–2007), i.e. nearly seven times. The cumulated principal amount of mortgage loans granted to legal persons is not quite small either, whereas the low initial amount of loans granted to municipalities has still been decreasing. Citizens invest a decisive part of the mortgage loans in housing, yet only a smaller part of it in construction.



**Source:** Selected Housing Data, Ministry for Regional Development; mortgage banks



**Transfer. Change of ownership.** A relatively large part of natural persons' resources was not used for the acquisition of a **new** dwelling. This applies both to saving with building societies which may be spent on other things (e.g. purchase of furniture) and to mortgages which may be used for the purchase of existing dwelling (considering the purpose of the mortgage, it is two thirds). This implies change of ownership and transfer of financial resources, but the demand for new, i.e. **additional** dwellings, is not satisfied. It is significant that a large part of these financial resources disappears from the dwelling market, unless used by the seller for construction of new dwellings. This is, however, probably not the case of municipalities and natural persons. As a result, the rapidly growing effective demand for dwellings is only in part demand for dwelling construction and in part represents only the costs of ownership transformation.

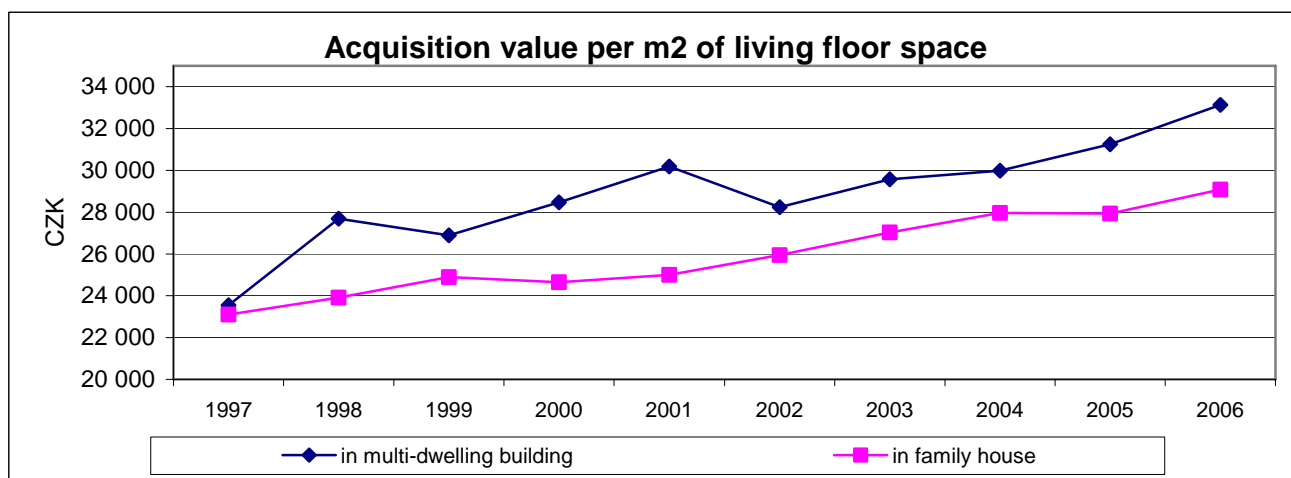
**Demand for rented housing.** This alternative demand cannot be directly measured; we can only speculate about the conditions of its generation. Of course, living in owner-occupied dwelling is in a number of ways better than rented housing; therefore, there are in the first place individual circumstances leading to the preference of rented housing, e.g. the need of housing for a certain period of time. **Physical availability** is another condition; there must be the sufficient number of rented dwellings on offer. And last but not least, **acceptable prices**, in other words rents have to be able to compete with mortgage instalments.

## Dwelling prices and rents

Well aware of considerable regional differences, let me proceed to an analysis of *aggregate* (average) data.

**The price per m<sup>2</sup> of living floor area** was on the long-term increase; the price of older dwellings grew faster than the price of new ones. In these circumstances:

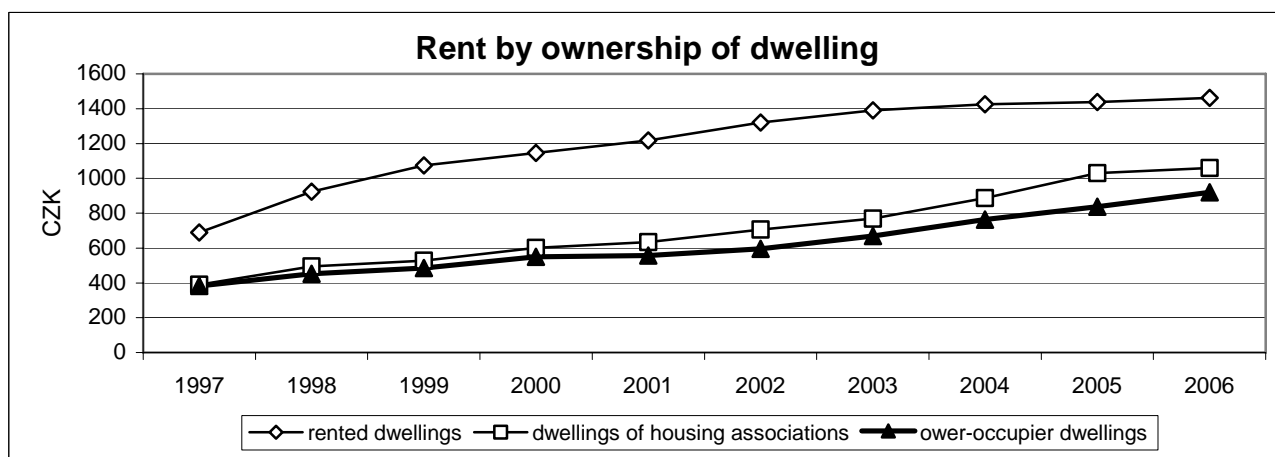
- The price has been higher and growing more rapidly in comparison to acquisition value per m<sup>2</sup> in a newly completed dwelling.
- Acquisition value per m<sup>2</sup> in multi-dwelling buildings roughly followed the growing prices of construction work; the value in family houses tended to follow the growth of consumer prices (i.e., it increased slower than in multi-dwelling buildings).
- The growth of construction work prices was only partly due to increase of material input prices (this increase was slower).
- The prices of land grew.



## Rent per m<sup>2</sup> of living floor area

- The maximum (**regulated**) rent rose more than eightfold between 1990 and 2002 and was considered equal to the costs.
- Also after 1997 it grew more rapidly in comparison to acquisition value per m<sup>2</sup> in a completed multi-dwelling building.
- **Rent in housing associations** and **imputed rent** rose slower than the regulated rent, so that it now makes up roughly a half of the regulated rent.
- **Contractual rent** – in 2001 more than twice as high as the regulated rent and grew faster.

We should note that the rent makes up about 20% of the total costs of housing; a decisive role is played by the costs of energy.



Note: monthly rent per 1st category dwelling, two habitable rooms

The movement of dwelling prices affects especially the amount of mortgage loans and, hence, the level of instalments. On top of that, it also affects the level of rents. There are also other factors: the rent control and the shortage of rented housing in particular, which resulted in signing more or less illegal subtenant contracts and opening the scissors between the regulated and market rent.

It is apparent that mortgage instalments reflect the trend of dwelling prices, which is not the case of market rent (let alone the regulated one). What we should stress are significant regional differences: in Ostrava, for example, the conditions of purchase of a dwelling (through mortgage) and corresponding rent are roughly the same, whereas in Prague the rent (substantially higher) is below the half of mortgage instalments because the demand is higher than supply.

**Housing support.** The price of dwelling and the rent were also affected by public housing support which included:

- **Support for saving with building societies and mortgages** from public resources targeted demand (and supply as well) to owner-occupied dwellings and facilitated the purchase of a dwelling.
- **Rent control** was applied to cushion the growing rents (to the detriment of owner-occupiers, physical persons as well as municipalities and legal persons) and thus contributed to the increase of new contractual rents and more or less illegal contracts on the one hand, and motivated owners of rented dwellings to sell them on the other.

The public housing support was also focused on:

- **Housing construction support for the socially disadvantaged and people with disabilities.** These dwellings are mostly acquired by municipalities, but their numbers are low and tend to decrease.
- **Support for modernisation and reconstruction of especially prefabricated buildings,** which improves not only housing and energy savings, but also adds to the lifespan of the buildings.

### **(Im)balance in the market**

Now we have available all basic indicators needed for a complex **analysis of the dwelling market**: supply, demand and prices (incl. rent). Depending on selection of the indicators, there are four generalisations at hand:

**Higher supply than demand.** As mentioned above, the number of persons per dwelling has been decreasing. The interpretation is that supply grew faster than demographically determined demand. However, it is possible that such a development was caused by the increasing number of one-person households and by decreasing number of persons living in existing dwellings (where the parents remain and the children seek new dwelling), so that supply relative to the number of households is not higher.

**Supply corresponds to demand.** In view of the above-mentioned let us admit rather identical direction of changes in supply and demand. A conclusion like this is supported by data on intensity of housing construction and trend in number of households. However, this gives no information about the causality, because there were mainly specific effects on both sides, though we can expect a certain degree of interaction. The primary explanation of falling increases of births at the start of the 1990's is changing preferences of young people, especially putting off raising a family. Additional explanation may be the relative shortage of dwellings. And also growing supply of completed dwellings in the following years surely reflects adaptation to the demand for dwellings, but primarily reflects a certain consolidation of the supply side in new circumstances.

**Demand higher than supply.** The increasing price of new dwellings partly reflects a higher quality, but this reason is insufficient, considering that the price of older dwellings grew more rapidly. More likely is the assumption that the price grew thanks to effective demand for dwelling **purchase** being higher than supply for the following two reasons: growing number of people intending to purchase a dwelling and, within this set of people, growing number of those ready to accept a higher price.

The growing prices yielded profit to the construction industry in general, and to developers and dwelling owners in particular. It would have been, as it should if the profit had been reinvested in housing construction to satisfy demand. Unfortunately, it is not that simple. Let me remember that part of effective demand was absorbed by transfer.

**Shortage of rented dwellings.** The rent is on the long-term increase and, besides getting closer to real costs of acquisition, operation and maintenance as the primary reason, another reason is the shortage of rented dwellings, especially in large towns (demand).

A key question appears: **why more rented dwellings in multi-dwelling buildings are not built and why existing rented dwellings are massively sold.** At least the first approach to a convincing answer is at hand:

- Investors who would think of rented dwellings (which applies to private investors as well as municipalities or former company dwellings) argue that the **level of rent** is limiting the room for the inclusion of costs of maintenance and profit incl. depreciation. (Individual dwelling owners usually do not calculate at all or calculate insufficiently the costs of maintenance and depreciation; by any means, they underreport them).

- When the rent is lower than mortgage instalment, it is advantageous for rented housing; however, mortgage is available (and supported by the state), rented dwellings are not available (both new and older ones); moreover, the number of rented dwellings has been decreasing.
- For these reasons developers could invest under low-risk and high-profit conditions, they were able to accept higher prices due to growth of construction work prices and particularly land costs, because they sold the dwelling.

The consequences of the aforementioned are as follows:

- The purchase of a dwelling is not affordable for everyone. However, supply of rented dwellings is insufficient and there is a shortage of council dwellings<sup>6</sup>.
- The demand for purchase of a dwelling (instead of rented dwelling) is more or less enforced by the structure of supply and has serious social implications.
- The argument that the preference of own dwelling is in line with the historical tradition (owner-occupied housing prevailed before the massive construction of prefabricated building began) leaves aside one structural aspect: owner occupied houses were predominantly in the country, in towns was prevalent rented accommodation.
- Today's trend of return to countryside or, more precisely, to the vicinity of towns with all – rather negative – implications for regional development is based on a number of reasons; among them is that owner-occupied housing is more easily available in the country than in towns (leaving aside ownership transformation of formerly rented dwellings).
- In any case a significant part of investment expenditures disappears from the market without any equivalent in the form of new dwellings; this is an important phenomenon.

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<sup>6</sup> There is no definition of council flats. The Ministry for Regional Development prepares the definition for new law.