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## Building Construction and Maintenance in Croatia

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### Summary

In the first part of the paper, there is the description of the pre - transition situation with the analysis of construction, maintenance and the conditions of using the apartment buildings data. The property structure is also analysed as well as the space owner's attitude towards the rent payment and building maintenance. In the second part of the paper, there is a short survey of the housing fund demolition during the war in the Republic of Croatia. The third part of the paper gives the analyses of the privatisation conditions as well as their influence on the building infrastructure which has already been constructed. In this part, there are some information about the model and the structure of the privatised apartment buildings. The authors mentioned some law changes and the new model of maintenance building infrastructure.

### 1.Pre-Transition Period

During this period construction of new buildings had to symbolise the advancement of society, for which the ruling political party took credit. Housing buildings in particular played a key role in the philosophy which stated "every worker has to have a flat". Every year waiting lists were created and workers were ranked according to their employment and social status and then money for purchasing flats or crediting was distributed accordingly. It was common practice for companies and organisations in large cities to purchase flats and then to distribute them to employed personnel and their families with lifetime rights for usage of the real estate, with only a minimum charge of 10-30 DEM / month / flat. Building construction was consistently oriented on multi storey city housing buildings. Waiting lists were always long and construction was never able to keep up with the necessary demand for dwellings for workers.

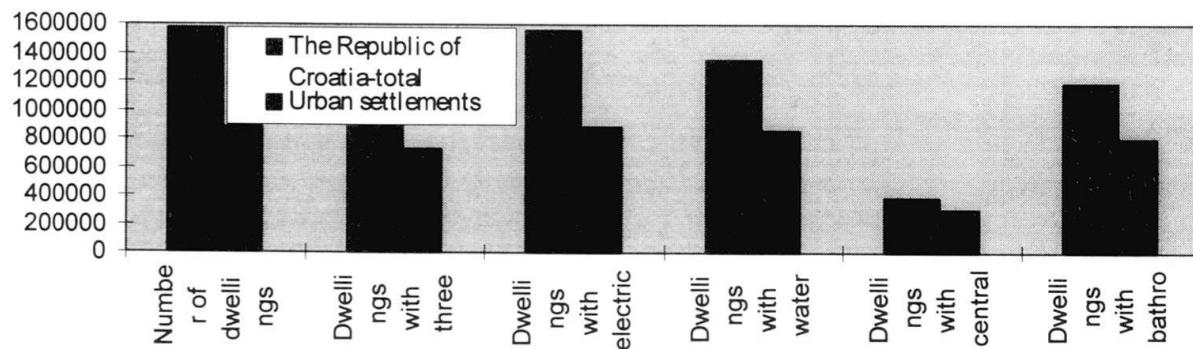


Figure 1 Housing fund according to number of rooms, installations and the other rooms-1991 census

Due to the extremely low amount of rent that was paid by tenants of government owned buildings, and the even lower maintenance fees paid by private owners (about 35%), the organisations responsible for proper maintenance of buildings were able to only provide last measures for the emergency repair of rundown housing buildings.

## 2. Wartime Damage Inflicted Upon The Housing Fund

After the holding of multi-party elections, significant political changes occurred in the Republic of Croatia. During these changes, various republics within the former Yugoslavia voted (acting legally within their rights according to the Yugoslav constitution) for independence. The central government, supported by the Yugoslav army, started a war of aggression. Approximately 145 000 flats or houses were damaged or destroyed, and approximately 200 000 people were left without a home. The government of the Republic of Croatia has begun a program of reconstruction. By the end of 1996, the program will have received approximately 1 billion DEM, of which 99% of the funds will be from the national budget. Average costs of reconstruction stand at 700 DEM/m<sup>2</sup> on approximately 20 000 houses or flats (up to 1996).

## 3. Transition

In the occurring transition, privatisation of the housing fund is being carried out. The basic rule that is applied to the privatisation program is that every citizen living in a government owned flat has the right, along with his family, to buy one government owned flat. A rating system has been developed for the valuation of buildings and flats. The index provides an estimate for the material value of dwellings in Croatian Kuna, or German Marks. Values per square metre vary in function with the age of the flat, location, area size, structural type, level of furnishing, and position. These factors are used to create a foundation for the cost of the flat which is then adjusted by several other factors. According to these regulations, the average cost of a flat runs between 100 DEM and 350 DEM/m<sup>2</sup>. In 1997, the government of the Republic of Croatia passed a law which obliges owners of flats in housing buildings to finance the maintenance of their buildings by themselves. The market has seen the formation of many new companies which provide services exclusively oriented to the maintenance of buildings. Owners of flats in every housing building must sign a contract with a company of their choice and must elect a building manager. The building manager manages the communal spaces and funds. In Table 1, conclusive data about the methodology used in determining costs of maintenance is shown.

| <i>Housing Fund of The City of Zagreb</i>               |   |
|---|---|
| <i>for a housing fund with a duration of 65 years.</i>  |   |
| <i>for total costs of maintenance forming 65%</i>       | <i>for total costs of maintenance forming 70%</i> |
| <i>1.15% annually</i>                                   | <i>1.23% annually</i>                             |
| <i>for a housing fund with a duration of 80 years.</i>  |   |
| <i>1.23% annually</i>                                   | <i>1.32% annually</i>                             |
| <i>for a housing fund with a duration of 100 years.</i> |   |
| <i>1.16% annually</i>                                   | <i>1.25% annually</i>                             |

Table 1 Average annual costs of maintenance of communal parts and items of housing buildings

For determining the average cost per m<sup>2</sup> of space there exist official sources. The amounts range from 765 to 953 DEM/m<sup>2</sup>.