II. EXISTING HOUSING STOCK AND NEW HOUSING CONSTRUCTION

A. The existing housing stock

Approximately 13 per cent of Slovaks live in the two big cities—Bratislava (444,000 inhabitants) and Košice (236,000 inhabitants). More than half the population lives in small settlements with fewer than 10,000 inhabitants. Furthermore, 96 per cent of the settlements have fewer than 5,000 inhabitants. So a large part of the housing stock is located in rural areas. Due to job losses in certain regions and cuts in public expenditures for the provision of public transport and social infrastructure in some rural areas, economically depressed areas experience a higher housing vacancy. The migration to larger cities and economically attractive regions reinforces existing regional differences in housing distribution and demand for dwellings.

According to the Population and Housing Census held in March 1991, Slovakia's total housing stock amounted to 1,769,000 dwellings, of which 1,618,000 were permanently inhabited. Recent estimates indicate that by the end of 1997 the total housing stock had increased to some 1.8 million dwellings.[6] Assuming that the demolition included mainly vacant dwellings, the number of occupied dwellings at the end of 1997 amounted to approximately 1,649,000 units. Thus, the housing stock grew on average 0.6 per cent a year during the 1991-1997 period,[7] which is considerably less than the average annual increase of 1.6 per cent between 1983 and 1991.

The latest available information on **vacancy rates** in housing is from the 1991 Population and Housing Census. It indicates that 151,000 dwellings were vacant, representing an extremely high proportion of 8.9 per cent of the total housing stock. However, it should be noted that dwellings under construction were registered as vacant.[8] If the total number of dwellings under construction at the beginning of 1991—68,827 units—is subtracted, the vacancy rate is down to about 4.8 per cent. Vacant dwellings are mostly located in remote areas or in areas with high unemployment and no demand for housing. According to the Ministry for Construction and Public Works, about 82 per cent of all vacant dwellings are family houses in private ownership and only about 20 per cent could be used again for residential purposes. Another 30 per cent, mostly single family houses in the south, are unfit for habitation for technical reasons. Many of these houses were built about 40-50 years ago from clay bricks. Following rural-urban migration they became vacant or were converted into secondary residences.

[6] The estimate is based on assumptions made in the "Conception of the State Housing Policy by 2000", the production of 77,500 new dwellings in this period and the annual removal of 7,000 dwellings from the stock.

[7] The figure does not account for demolition of dwellings.

[8] According to the census methodology, dwellings could be registered as inhabited only with a certificate of occupancy.

Housing distribution

A quantitative comparison according to the number of dwellings per 1,000 inhabitants ranks Slovakia somewhere in the middle among countries in transition (table 4). Bulgaria, the Czech Republic and Hungary have close to 400 dwellings per 1,000 inhabitants. Slovakia, with 334 dwellings per 1,000 inhabitants, follows Romania and Slovenia very closely. However, this indicator is much lower than the levels of 350 to 475 dwellings per 1,000 in western Europe. **There are housing shortages in Slovakia.** The number of persons per room is as high as 1.14. With respect to average floor space per person, Slovakia with 21.9 m², compares favourably to housing consumption in the other countries in transition, where this indicator is below 20 m² (the Czech Republic and Hungary being notable exceptions).[9] It should be noted, however, that there are significant regional differences within each country.

TABLE 4

Housing distribution indicators in selected countries in transition, 1994

Countries	*Dwellings* per 1,000*	*Persons/room*	*m²/person*
Bulgaria	405	1.00	16.7
Czech Republic	397	1.04	25.5
Hungary	385	0.92	32.1
Romania	341	1.19	17.4
Slovenia	338	1.33	19.0
Slovakia	**334**	**1.14**	**21.9**
Poland	296	1.02	18.2
Albania	219	2.70	8.0

Source: J. Hegedus, S. Mayo and I. Tosic, *Transition of the housing sector in the east-central European countries* (Budapest, Metropolitan Research Institute, 1996).

* Total housing stock, including vacant dwellings.

Dwellings in Slovakia are relatively small. According to the 1991 Census, the average living floor space of all types of dwellings amounted to 45.4 m², ranging from 24.5 m² in dwellings with one room to 93.7 m² in dwellings with 5 or more rooms.[10] Table 5 shows the size

[9] In western Europe the average floor space per person ranges from 26 to 43 m².

[10] For comparative purposes, in 1994 the average living floor space for all types of dwellings in Belgium and Germany was 87.6 m² and 84.2 m², respectively.

of dwellings compared to household size in 1991. **The structure of the housing stock does not correspond to the structure of households.** There is a shortage of flats with three bedrooms or more. As a result, newly built dwellings have a much higher average floor space.

TABLE 5

Distribution of dwellings according to household size, 1991

Dwellings			*Households*		
Number of rooms in a dwelling	*Number of dwellings (thousands)*	*Percentage*	*Number of persons in household*	*Number (thousands)*	*Percentage*
1 room	182	11.2	1	339	21.8
2 rooms	439	27.1	2	437	23.8
3 rooms	628	38.8	3	337	18.4
4 rooms	231	14.3	4 or more	649	36.0
5 or more rooms	138	8.6			

Source: Statistical Office, *Census of population and housing* (Bratislava, 1991).

Housing needs

According to the "Conception of the State Housing Policy by 2000", the aim is at least to maintain the quantitative level of housing provision of 307 dwellings per 1,000 inhabitants. To meet the objective, it would be necessary to build 21,000 dwellings a year in the period 1997-2000. However, several other indicators show that, in practice, the need for new housing is much greater. The average number of persons per room amounted to 1.14, and per dwelling to 3.26 in 1991. The household-to-dwelling ratio was 1.12. These figures indicate that the number and the size of the dwellings are inadequate compared to the number of households. Given the average size of households, based on the estimated number of inhabitants (5.38 million), and the housing stock (1,691,000 dwellings) at the end of 1996, the total housing deficit amounts to 180,000 dwellings. In addition, the average household size of 3.26 persons in 1991 in Slovakia is quite high compared to west European levels. If this figure were to fall to the west European average of 2.5 persons per household, this would require an extra production of at least 280,000 new dwellings in the next decade. So, solving the housing deficit in ten years and reducing the average size of households to 2.5 would require production of at least 32,000 dwellings a year. Those estimates do not take into account the need for new housing due to natural population growth or to demolition.

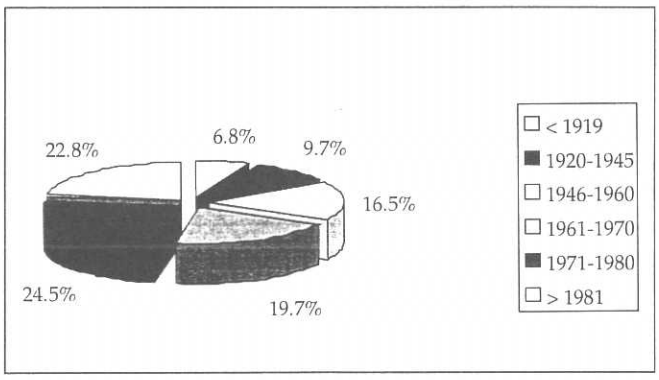
Besides the quantitative housing needs, the demand for new housing due to the inefficient distribution of units should also be taken into account. In addition, regional differences in housing consumption, as well as the discrepancies between the composition of the present stock and the structure of households in different local markets, need to be considered. A comprehensive assessment requires systematic information on these issues, which is not available at the moment.

Housing quality

Slovakia's housing stock is relatively young—36 years on average. As figure VII illustrates, 50 per cent of dwellings were built more than 25 years ago. Only 7.0 per cent of the stock was built before 1919, and another 10 per cent between 1919 and 1945. Almost 83 per cent of the stock dates from the period between 1946 and 1991. Compared with other European countries, this figure is quite high—the average figure for Europe is about 70 per cent.

FIGURE VII

Age of the housing stock, 1991



Source: United Nations Economic Commission for Europe, *Annual Bulletin of Housing and Building Statistics for Europe and North America* (Geneva, 1996).

In terms of amenities, the quality of the Slovak housing stock is quite high. More than 75 per cent of the stock has a central heating system and more than half the stock is connected to the national gas grid. As data in table 6 indicate, almost 90 per cent of the housing has a bath or shower and more than 92 per cent is connected to water piping. Overall, the situation in Slovakia in terms of amenities in the existing housing stock compares quite favourably with other countries in transition.

TABLE 6

Housing quality indicators in selected countries in transition

	Piped water	*Flush toilet*	*Bath or shower*
Country	*Percentage of the total dwelling stock*		
Bulgaria	83.4	57.7	44.9
Hungary	84.4	75.6	79.6
Poland	90.6	78.6	78.6
Slovakia	**92.7**	**80.0**	**89.0**
Slovenia	97.5	90.1	87.1

Source: United Nations Economic Commission for Europe, *Annual Bulletin of Housing and Building Statistics for Europe and North America* (Geneva, 1996 and 1998).

The methodology used in the 1991 Housing and Population Census defined four categories of housing quality according to amenities:

- Category I: dwellings with central heating, central hot water supply, bathroom and toilet;
- Category II: dwellings with central heating, local hot water supply, bathroom and toilet;
- Category III: dwellings without central heating, with local hot water supply, with either a bathroom or a toilet; and
- Category IV: dwellings without central heating, hot water supply, toilet or bathroom.

According to these categories, different housing types show a striking difference in quality. As data in table 7 indicate, most dwellings in multi-family housing belong to the first category, compared to only about 60 per cent of the single-family houses. Close to 18 per cent of the single-family houses belong to the lowest housing quality category, while another 13 per cent and 9 per cent to categories II and III, respectively. Meanwhile the share of multi-family housing in these categories is negligible.

Data on the technical and physical quality of the housing stock are scarce. In general, the legacy of previous housing policies has contributed to a serious backlog in maintenance and repair of the housing stock and the technical infrastructure. The situation further worsened during the transition period as the Government withdrew from the financing of repair and modernization. It is estimated that SK 100,000 per apartment are needed for repair in the rented (or formerly rented) housing stock. According to a recent study by the Ministry for Construction and Public Works, 255,671 dwellings need complex renovation. These units were built before 1970 using mainly large-panel technology. In general, this type of housing is poorly insulated. Surveys show that energy consumption can be cut by 30-40 per cent, if adequate technical improvements are made. Some of the construction elements and the technical equipment in these buildings are in the final stages of their service life. Leaking roofs and damp walls are also common. Reconditioning of the panel housing stock should include: (*a*) renewal of external insulation; (*b*) replacement of windows and/or doors; (*c*) replacement of gas, water, energy and heating systems. The complete replacement of the entire technical infrastructure of the buildings, including lifts, is another part of the proposed renewal package. Costs for these operations are estimated at SK 11.6 billion. The Ministry for Construction and Public Works has proposed a scheme for the gradual renewal of about 28,000 dwellings per year, which would lead to an annual investment of SK 16.2 million into the renovation of the existing housing stock.

TABLE 7

Housing quality in different housing types, 1991

	Multi-family housing		*Single-family housing*		*Other housing*		*Total*	
Category	*Dwellings*	*Percentage*	*Dwellings*	*Percentage*	*Dwellings*	*Percentage*	*Dwellings*	*Percentage*
i	779 670	94.0	493 223	59.1	5 995	85.2	1 278 888	76.6
ii	41 583	5.0	108 062	12.9	735	10.4	150 380	9.0
iii	2 037	0.2	77 917	9.3	85	1.2	80 039	4.8
iv	3 822	0.5	155 710	18.6	222	3.2	159 754	9.6
Total	827 112	100.0	834 912	100.0	7 037	100.0	1 669 061	100.0

Source: Statistical Office, *Census of population and housing* (Bratislava, 1991).

The historic core of some historic cities and villages is severely deteriorating. Some dwellings in the historic buildings housed lower income households. The growing amount of cars in cities and the lack of public parking places make the present use of these areas difficult. A co-ordinated investment through public private partnerships is required to make historic areas more liveable.

B. Tenure structure and housing markets

The data on tenure patterns in Slovakia shows that in 1991 about 50 per cent of the housing stock was privately owned. This part of the stock basically consists of family homes in smaller towns, villages and rural areas, constructed on a do-it-yourself basis at a time when building materials were inexpensive. Municipal and cooperative housing, which accounted for 50 per cent of the stock, is mainly located in urban areas. The share of municipal housing in Slovakia is low compared to west European levels, where public housing takes up between 23 and 56 per cent. The cooperative sector—over 22 per cent—rep-

resented a more significant part of the housing stock in comparison with other west European countries. Private renting was non-existent.

Privatization and tenure structure

Since the start of the transition to market-based housing provision, the tenure structure of the housing stock has been transformed. All State-owned dwellings were transferred into municipal ownership in 1991. Within the general process of changes in the ownership structure, three main forms can be discerned: (*a*) restitution; (*b*) privatization; and (*c*) transformation of housing cooperatives.

The **restitution process** started in 1991 with the endorsement of the Act on Restitution. Under the restitution scheme, property nationalized after 1948 can be returned to its former owners or their heirs.[11] The restitution process had no significant effect on the housing tenure structure, as it affected only 0.25 per cent of the public housing stock.

Since the endorsement of the Act on Ownership of Residential and Non-residential Premises in 1993, tenants of the municipal housing stock have been eligible to purchase their home, provided that more than half the tenants in a multi-family building are willing to privatize their flats. Under the **privatization programme** the price is based on the purchasing price at the time of construction and is depreciated by 2 per cent per year[12] and then the price is reduced by 30 per cent. Prices are severely depressed and stand at less than 5 per cent of the market value of the dwellings. Furthermore, privatization of housing is subsidized through the contract savings system. Under this scheme, eligible savers are entitled to a State premium for the purchase of housing in the privatization programme. "The right to buy" has no time limit. A first instalment of 15 per cent of the estimated purchasing price is due upon the transfer of the dwelling, the remaining amount must be paid over ten years. Despite the favourable conditions, the sale of public housing is not as massive as expected. The slow pace of privatization can be explained by:

—The inefficent operation of local authorities and the real property registration system;[13]

—The low rents and absence of maintenance costs make it financially more attractive to rent;

—The unlimited period to exercise "the right to buy" public housing;

—The large backlog in maintenance of public housing combined with the generally poor quality of the older housing stock.

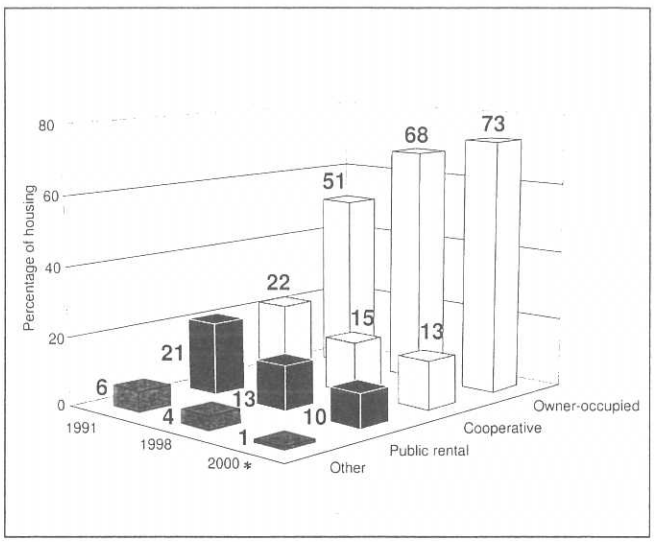
By the beginning of 1998, approximately 37 per cent of the public rental stock had been privatized. The expectations are that by the year 2000 this figure could increase to 55 per cent.

A third form of ownership transformation involves **the transfer of cooperative housing** into private ownership by existing cooperative members. The principles of privatization of cooperative housing are specified in the 1992 Act on Transformation of Cooperatives. One of the main provisions of this Act requires cooperatives to pay back the construction loan at the time of purchase. Prices to be paid for cooperative flats do not reflect regional differences. Furthermore, the right to privatize cooperative dwellings is unlimited. During the initial stage of the privatization process, interest among cooperative members appeared to be quite high—about 65 per cent wanted to buy their dwellings. By 1998 approximately 28 per cent of the cooperative housing stock had been privatized. It is expected that by the year 2000 some 41 per cent of the cooperative housing stock will be transferred into private ownership.

Major changes in the tenure structure took place mainly in urban areas. For example, in Bratislava private ownership of dwellings increased from 12 per cent in 1991 to about 70 per cent in 1998.

FIGURE VIII

Changes in the tenure structure



Sources: Ministry for Construction and Public Works, interview data (Bratislava, May 1998); United Nations Economic Commission For Europe, *Implementation of Human Settlements Policies on Urban Renewal and Housing Modernization: Case Study Bratislava* (forthcoming).

* Data for the year 2000 is based on expert estimates.

Exact figures on the present tenure distribution of the housing stock are not available. However, some estimates could be made taking into account progress in privatization and restitution. It is estimated that in 1998 the public rental housing stock represented only 13 per cent of the total housing stock, the cooperative sector about 15 per cent and the private sector close to 68 per cent. Given the pace of the privatization and rates of new housing construction, it might be expected that only 10 per cent of the housing stock will remain as public rental housing in the year 2000, 13 per cent will remain as cooperative, and 73 per cent will be in private hands. Changes in the tenure structure of the housing stock in 1991-2000 are presented in figure VIII.

[11] Nationalized housing sold to individuals after 1948 was excluded from the restitution scheme. Former owners or heirs are entitled to financial compensation from the State.

[12] In 1989 the price of an average flat amounted to SK 180,000.

[13] In 1996, for example, 148,000 tenants applied, but contracts were prepared for only 78,000 applicants.

The housing market

While a residential real-estate market in Slovakia is emerging, sales of real property are limited only to the properties restituted to former owners and privatized former State housing units. Many dwellings were sold by local governments to sitting tenants, but without registration of legal title and ownership rights at the time of sale. In addition, there is a procedure backlog in view of the fact that the land registration system is being established.

Available information on house prices in 1997 indicates that, due to their better quality (building materials, size and layout), the newly built housing units are 15-30 per cent more expensive than existing housing units. House prices in Bratislava (standard housing) are up to 25 per cent higher than house prices in regional centres with more than 30,000 inhabitants (table 8). **The regional and local price differentiation** also reflects differences in economic development and employment opportunities among cities and regions.

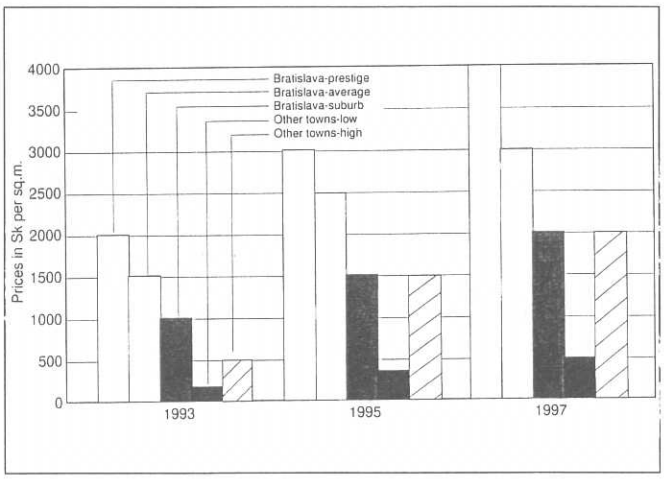
TABLE 8
House prices, 1997

House prices in SK per m^2	*Newly built housing*	*Existing housing*
Bratislava—housing of normal standard	19 000-26 000	15 000-20 000
Bratislava—housing of higher standard	30 000-35 000	..
Towns up to 30 km from Bratislava	14 000-18 000	12 000-15 000
Regional and district centres—more than 30,000 inhabitants	16 000-22 000	12 000-15 000

Source: Database of the First Slovak Building Savings Bank, 1998.

Land prices increased steadily between 1993 and 1997. Land shortages obviously push up the prices of newly built housing, particularly in Bratislava. Currently prices per square metre in the most desirable locations in the capital are twice as high as prices for similar dwellings in other towns (fig. IX). The fact that this correlation in prices has remained similar throughout the transition period, suggests that there are inefficiencies in the operation of urban land markets.

FIGURE IX
Land price dynamics, 1993-1997



Source: Litomeritsca, 1998.

While market prices of urban land are reported to be as high as US$ 510 per square metre depending on the location, the price of State land is determined by a formula based on the size of the town (Bratislava is the most expensive), and some basic amenity considerations (e.g. central versus peripheral location). Sales prices are not based on a true market appraisal. This formula yields base prices ranging from US$ 1 to US$ 24 per square metre, which are then subject to surcharges or reductions.

C. New housing construction

In 1980 close to 48,200 new dwellings were completed in Slovakia. During the transition period, when State subsidies for large-scale panel construction were abolished, new housing construction plunged from 24,700 dwellings in 1990 to 6,200 dwellings in 1996. There was a similar trend in other countries in transition. Bulgaria, Estonia and Latvia experienced a particularly pronounced decline, reflected in a record low of new dwellings per 1,000 inhabitants (table 9). **Slovakia underwent a recession in**

TABLE 9
New dwellings per 1,000 inhabitants in selected countries in transition

Country	*1980*	*1990*	*1996*
Bulgaria	8.4	2.9	1.0
Croatia	n/a	3.9	2.8
Czech Republic	7.9	4.4	1.4
Estonia	9.8	4.8	0.6
Hungary	8.3	4.2	2.8
Latvia	7.7	5.0	0.6
Lithuania	8.2	6.0	1.9
Poland	6.1	3.5	1.6
Romania	8.9	2.1	1.4
Slovakia	**9.1**	**4.7**	**1.2**
Slovenia	7.2	3.9	3.1

Source: United Nations Economic Commission for Europe, housing database.

TABLE 10
Dwellings completed by type of ownership, 1980-1996*

	Municipal rental dwellings		*Other public dwellings*		*Cooperative dwellings*		*Private owner-occupied dwellings*		*All dwellings*	
Year	*Units*	*Percentage*	*Units*	*Percentage*	*Units*	*Percentage*	*Units*	*Percentage*	*Units*	*Percentage*
1980	11 437	100	5 637	100	18 527	100	12 614	100	48 215	100
1990	4 153	36	154	3	10 033	54	10 365	82	24 705	51
1993	2 217	19	151	3	3 474	19	8 182	65	14 024	29
1996	1 428	12	13	0.2	1 306	7	3 510	32	6 257	13

Source: Statistical Office, *Statistical Yearbook* (Bratislava, 1997).
* Number of completed dwellings is compared to output in 1980 = 100 per cent.

new housebuilding with production levels of 1.2 units per 1,000 inhabitants in 1996, i.e. approximately 8 times less than its output in the 1980s.[14]

Recession in new housing construction did not affect all housing sectors to the same degree. **The public rental and cooperative sector suffered the most decline.** The decline in new cooperative construction was sharper than that in municipal rental housing. As table 10 shows, in 1996 levels of cooperative and municipal rental housing construction were 7 per cent and 12 per cent of the 1980 output. However, the most drastic change is evident in the construction of other types of public housing (company housing etc.) which by 1996 had virtually disappeared. Even the owner-occupied sector experienced a dramatic decline from about 12,614 dwellings in 1980 to slightly over 3,500 in 1996.

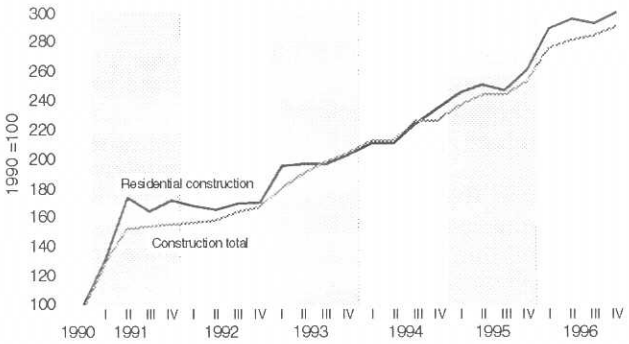
In 1997, the housebuilding industry started to recover. The number of completed dwellings in the public rental, cooperative and owner-occupied sectors grew. Data indicate that 7,142 dwellings were completed that year. Housing starts in 1997 doubled compared to 1996. It can be concluded that this upward trend will continue in the near future, especially in the owner-occupied sector, where new housing construction is growing rapidly. Data for 1997 indicate that housing starts of owner-occupied housing in 1997 reached their 1980 levels. However, despite an overall increase in housing investment, housing starts in the cooperative and public rental sector are a mere tenth of their 1980 levels (Statistical Office, 1998).

There is no private rental housing. Strict rent control and the fact that landlords have to provide alternative housing to tenants in case of eviction render investments in the rental sector unattractive.

The construction costs of new housing have increased dramatically since the liberalization of prices of basic inputs—building materials and labour (fig. X).

The elimination of production subsidies to State construction enterprises, as well as inflation, have further pushed up construction costs. Residential construction costs have tripled since 1990 and were particularly high in 1991 and 1996. These trends will obviously affect house price-to-income ratios and exclude many Slovak households from access to the market for new homes.

FIGURE X
Construction cost index, 1990-1996



Source: Statistical Office, *Statistical Yearbook* (Bratislava, 1997).

On the positive side, **new housing is bigger and better**. The average total floor area in new dwellings increased from 82 m² in 1990 to 109.1 m² in 1996, with an average of four rooms per dwelling. Public and cooperative housing in the same period had an average living floor area of 65 m², while privately owned housing had a substantially larger average living floor area of 81 m². With the increase in the prices of building materials in 1992-1993, as well as the lack of mortgage credits, self-help housing construction in rural areas and small towns has declined. Reportedly, most of the privately financed housing is for affluent consumers and/or medium-income households moving up the housing market, which explains the rapid improvement in size and quality.

Municipalities have difficulties acquiring land for residential use. They now have to negotiate the purchase of land with owners should they need it for building purposes. Municipal housing development is no longer a reason for land expropriation, and in view of their financial difficulties, municipalities are not in a strong bargaining position. **Another constraint for new housing construction is the provision of technical infrastructure.** Off-site provision of water supply, sewage networks and heat-

[14] By comparison, in 1996, in Austria, Finland and Switzerland annual new housing production per 1,000 inhabitants was 7.2, 4.1 and 6.1 units, respectively.

ing systems is a statutory responsibility of municipalities. In addition, municipalities are to invest in the development of infrastructure for municipal housing. State utility companies are not obliged to connect new residential areas to the existing infrastructure. Their primary responsibility is to maintain the existing infrastructure. The lack of municipal funds and the inability of the private sector to take over the task of infrastructure development in large-scale residential development areas, are important constraints to new housing development.