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A HOUSING PRIVATIZATION STRATEGY FOR LIBEREC

FINAL REPORT

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ABSTRACT

This report reviews the characteristics and condition of residential buildings owned by the City of Liberec in the Czech Republic, analyses the revenues accruing to the city from these buildings and the costs of operating them, and proposes a plan for privatizing the inventory by selling the buildings to their occupants. The plan includes a pricing policy, priorities for disposition of buildings, legal forms for the transfer of title, and an administrative schedule for the privatization program.

A HOUSING PRIVATIZATION STRATEGY FOR LIBEREC
EXECUTIVE SUMMARY

In 1991, the reform government of the Czechoslovakian Federal Republic (CSFR) transferred title of all predominantly residential state-owned properties to the municipalities in which the properties were located. The municipalities were free to make their own arrangements for management of their new possessions, but were bound by CSFR legislation governing privatization, rents, and charges for communal services; and subsequently by legislation of the successor government of one Czech Republic (CR).

The City of Liberec took title to about 2,300 residential buildings containing approximately 16,900 individual dwellings, nearly all occupied by rental tenants. To provide continuity in property management, Liberec contracted with former branch managers of the state housing management enterprise to continue their functions as private entrepreneurs.

National legislation sets rents for both city-owned and privately owned dwellings. Under the socialist regime, rents for state-owned dwellings and the prices of communal services were set far below the costs of providing services, the difference being covered by annual subsidies from the state. These subsidies were discontinued at the end of 1992, creating a fiscal crisis for municipalities newly responsible for maintaining the formerly state-owned dwellings. However, the central government authorized rent increases in 1992 and 1994 that roughly offset the lost subsidies.

Most municipalities, including Liberec, would like to privatize most or all of their newly acquired housing, but few have made much progress. In part, this is because local legislators are reluctant to disturb the vested rights of rental tenants, in part because property values are ill-defined, and in part because of disagreements about pricing policy. However, a major impediment to privatization has been the absence of convenient legal arrangements for joint ownership of large multiple dwellings. This problem was finally resolved in March 1994 by passage of a modern condominium law that enables a municipal government to sell individual apartments to their occupants and relinquish management responsibilities to an association of the new owners.

This report reviews the physical characteristics and financial performance of the current inventory of city-owned housing in Liberec and proposes a privatization strategy for its disposition.

CHARACTERISTICS OF THE MUNICIPAL HOUSING INVENTORY

About 80 percent of all residential buildings owned by the city contain ten or fewer dwellings; some were originally single-family houses, converted under the socialist regime to makeshift apartments; others were built as multiple dwellings. The great majority of these small and medium-sized buildings were built before World War II and many date from the latter part of the 19th Century. After World War II, the socialist government built large apartment blocs that now contain about half of the city-owned dwellings even though they comprise only 20 percent of city-owned residential buildings.

The older buildings are especially deficient in kitchen, bathroom, and heating facilities, and most are badly deteriorated. From a sample survey of building condition, we estimate that rehabilitating the entire inventory of 1,881 buildings would cost about Kc 350 million ($12.5 million), or about Kc 22,728 ($812) per dwelling. For comparison, the total rent earned from these buildings in 1992 was about Kc 47

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million ($1.7 million) or Kc 2,936 ($104) per dwelling. As might be expected, the older buildings and the smaller buildings require the largest outlays per dwelling.

THE FINANCIAL PERFORMANCE OF HOUSING MANAGEMENT COMPANIES

During 1992-93, five private housing management companies (HMCs) were under contract to manage the city's inventory of rental housing. These firms were responsible for physical maintenance of the buildings, including the care and replacement of city-owned heating, kitchen, and bathroom appliances in the individual apartments. Although each firm had a small staff of workmen and maintenance inspectors, most maintenance work was contracted to other enterprises. The firms had few responsibilities aside from overseeing general building maintenance. They did not choose or evict tenants, set or collect rents, or referee disputes between tenants. Each of the five HMCs devised its own record system which typically did not track income or expenses by property; the financial reports required by the city allowed the companies to aggregate their financial accounts for all properties they managed.

In 1992, their first year of operation, the HMCs obtained revenue from several sources: tenant payments for rent and communal services, general and special subsidies from the municipal and federal governments, and a monthly fee of Kc 45 per unit under management, paid by the city. With these resources, the HMCs were expected to maintain the buildings, pay the suppliers of communal services (except those directly metered to individual apartments), and pay their own staff and operating expenses.

Maintenance standards were not clearly specified by contract; instead, the HMCs understood that their expenditures for maintenance must not exceed the sum of shelter rent collected from the tenants and the annual maintenance subsidy granted to the city by the federal government. A few buildings that were in very bad condition were selected for rehabilitation, with individual budgets approved by the city government; in certain other buildings, federal subsidies were used to replace obsolete heating systems with natural gas furnaces. For all other buildings, the HMCs responded to emergencies such as leaking roofs, heating failures, or stopped drains; responded to most tenant complaints about other less urgent problems; and undertook a small amount of preventive maintenance.

In 1992, the five HMCs jointly reported a surplus of earned income over expenses in the amount of Kc 12.7 million. However, this surplus was partly theoretical because some tenants did not pay on schedule; the cash receipts of the five HMCs totaled only Kc 130.6 million and the cash surplus was only Kc 7.8 million. This surplus was credited to the city as the owner of the property managed by the HMCs.

At the time this report was prepared, final accounts for calendar 1993 were not available; however, we believe that the rent increases granted by the national government in mid-1992 only partly offset the loss of federal subsidy at the end of that year; and that the cost of maintenance increased by about 11 percent from mid-1992 to mid-1993. We infer that the level of maintenance was reduced to stay within budget.

A second rent increase, effective in January 1994, probably restored the status quo ante. However, during 1994, contracts containing elementary performance standards were negotiated with the HMCs; two HMCs declined the new terms, so their responsibilities were contracted to other firms. We are not optimistic about the coherence or completeness of the financial records for the discharged companies.

FINANCIAL PERFORMANCE OF INDIVIDUAL PROPERTIES

As noted, the HMCs did not maintain income and expense records for individual properties, information that we believe is critical for good management decisions and also for decisions about inventory disposition. We were able to construct basic income and expense records for 698 properties managed by two of the HMCs, firma LEMU and firma LIMIT. These properties do not comprise a representative sample of the inventory, but they do encompass the full range of property types. For this reason, evidence from the sample helps us to formulate a privatization strategy that takes account of the most salient property characteristics.

Although the HMCs collect (through an intermediary financial institution called SIPO) both shelter rent and tenant payments for various communal services (the most important is space heating), the service payments are passed on to the utility companies that provide the services. We focused on shelter rent, the indicated source of the HMC maintenance budget. Using 1994 residential rents and maintenance costs, we estimated the expected financial performance of individual buildings during that year. We found that about 42 percent of LEMU's properties and 54 percent of LIMIT's properties were likely to show an operating profit during the year. These were nearly all large new buildings. The older and smaller buildings are expected to have operating losses for that year; for some properties, the losses are as much as eight times the rental revenue, even though the properties have high occupancy rates.

Under current policy, the unprofitable properties are subsidized by the profitable properties and the residential units are subsidized by commercial units, whose rents are not regulated but are individually negotiated by the city authorities. A property's maintenance level does not reflect its own revenue, but the average revenue of all properties managed by the cognizant HMC. Our sample study of building condition indicates that current maintenance practices are insufficient to keep residential properties in stable condition; both unprofitable and profitable properties are rapidly deteriorating.

PRIVATIZATION STRATEGY

In our judgment, the challenge to the city is to create institutional arrangements that result in a higher level of maintenance for residential property than is now usual for city-owned properties. This could be done under city ownership, but only with the aid of subsidies from the city treasury--because the city does not have the authority to set rents above the levels decreed by the Czech Ministry of Finance. However, there is reason to think that it could also be done by transferring property titles to private owners.

The institutional obstacles that prevent the city from behaving as a responsible landlord would also apply to private landlords. Private investors may be interested in purchasing some city-owned buildings with a view to converting them to unregulated commercial uses or with the expectation that the national program of rent regulation will end within the foreseeable future, but the immediate returns from operating rental property are negligible.

Within the framework of national laws and decrees, the only escape from this impasse is to transfer title of city-owned residential property to its occupants. When the occupants become owners rather than tenants, they can scale the level of maintenance to their own preferences--but must pay the full consequences of their choices. If they are able and willing to pay for a high level of maintenance, both the market value of their property and their current enjoyment of it will rise. If they are unable or unwilling to pay for adequate maintenance, they must suffer the consequences; but every one suffers the adverse consequences of undermaintenance under city ownership and management.

We propose that Liberec undertake an aggressive program of privatization, selling small buildings to their tenants in joint ownership and selling individual apartments in large buildings to their tenants as condominium units. Prior to sale, each building should be inspected by city engineers whose report should include an estimate of rehabilitation costs for the building.

Because sitting tenants are given preference, dwelling prices cannot be set by competition, but must be administratively determined. We recommend that individual dwelling prices be set at approximately 20 times 1994 shelter rent, minus the prorated cost of rehabilitating the building, plus a pro-rated share of land value (also administratively set). Current shelter rent roughly reflects the size and design quality of each dwelling, while rehab cost reflects building condition. Location values should be reflected in land prices.

The highest priority for privatization should be the 557 properties with one to four residential units, whose management and maintenance is a major burden for the city. The pricing formula given above yields values for these properties in the range of Kc 16,100 to Kc 30,000 per dwelling ($575 to $1,071). At these prices, the dwellings will be perceived as bargains even though they need considerable expenditure for rehabilitation--about Kc 60,000 to Kc 80,000 per dwelling ($2,142 to $2,857). In these cases, only whole properties should be sold, so that the city can withdraw from management and maintenance on the day of sale.

The 951 properties with 5 to 10 residential units will be the most difficult to privatize because they are too large for joint ownership and marginally small for condominiums. We recommend that a team of appraisers visit each building and recommend a strategy for its privatization, reflecting its desirability for residential purposes, its physical condition, and the characteristics of its tenants. Some of the dwellings in this group may be retained in city ownership as "social housing" for those unable to afford the full cost of decent shelter. Because the rental revenues from most buildings in this group come close to covering their operating costs, the necessarily slow process of disengagement will not create a heavy financial burden for the city. Using the pricing formula described above, selling these properties to their tenants should yield Kc 40,000 to Kc 50,000 per dwelling ($1,429 to $1,786).

The city owns 351 buildings with more than ten units (some as large as 72 units); nearly all are currently profitable, so there is no urgency about privatizing them. It is not feasible to organize the tenants of such large structures into a joint ownership that could buy the entire building; but under the new condominium law, the city can sell individual units to their occupants while retaining title to the unsold units and sharing in management decisions of the condominium association. The pricing formula described above would yield an average of kc 70,000 per dwelling ($2,500).

By using privatization revenue to increase the staff of the Office of Property Sales, we think the city could dispose of most of its holdings within about five years, and that the occupants would be better off as owners of their apartments than they are now as renters who pay low rents for undermaintained dwellings.

I. INTRODUCTION

On 24 May 1991, the reform government of the Czechoslovakian Federal Republic (CSFR) transferred titles of all predominantly residential state-owned properties to the municipalities in which the properties were located.[1] The municipalities were free to make their own arrangements for management of their new possessions , but were bound by CSFR legislation governing privatization, rents, and charges for communal services; and subsequently by legislation of the successor government of the Czech Republic (CR).

The transfer was not well-documented; as nearly as we can determine, Liberec took title to about 2,300 residential building containing approximately 6,900 individual dwellings, nearly all of them occupied by rental tenants. To provide continuity in property management, Liberec contracted with former branch managers for the state housing management enterprise (BPML) to continue their functions as private entrepreneurs, operating from the premises of the BPML branch and inheriting its records. The city also began privatizing this stock under municipal ordinances passed 19 February 1991 and 28 January 1992.

Before the municipal government took title to state-owned residential buildings, about 480 apartments in 320 buildings had been privatized under national legislation dating from 1966. This privatization had little practical effect, inasmuch as the state housing management company continued to operate the buildings and the "owners" paid monthly fees corresponding to the rents charged other tenants of the same building. Liberec's privatization program is limited to selling entire buildings--usually small buildings--to their tenants. By mid-1993, about 220 buildings containing 530 dwelling units had been privatized in this way. The program continues at the rate of ten to twenty buildings per month; each transaction must be approved by the City Council.[2]

In September 1991, the federal government issued regulations governing maximum privatization prices for single-family houses; amendments in December 1992 covered apartments in multiple dwellings.[3] Within these maxima, local governments have considerable latitude to pursue their own pricing policies. Liberec adopted an elaborate plan for privatization that included administered prices, negotiated prices, and auctions.[4]

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[1] CSFR, *Law Concerning Transfer of Certain Property of the CR to Municipalities*, Law No. 172/91. Buildings containing one-third or more nonresidential uses remained the property of the state and continued to be managed by BPML, the state property management enterprise.

[2] The City of Liberec has an elected legislative assembly, the Chamber of Representatives (70 members); a smaller City Council consisting of the Mayor and four deputies plus nine Representatives has executive powers, including the adoption and implementation of program standards and procedures pursuant to more general legislation approved by the Chamber of Representatives.

[3] Decree No. 393 of the Ministry of Finance of the Czech Republic, *On the prices of buildings, land, permanent green areas, fees for establishing the right to personal use of land and compensation for the temporary use of land*, 5 September 1991; as amended by Directive 611 of the Ministry of Finance, 7 December 1992. Why Decree No. 393 omits multiple dwellings is not clear to me.

[4] *Procedures for Transfer of Real Property Owned by the City of Liberec*, approved 28 January 1992; amended 23 February 1993 and again late in 1993 (date unknown, effective 1 January 1994). City officials seem to regard the national price regulations as advisory rather than compulsory.

National legislation also sets rents for both municipal and privately owned dwellings. Under the socialist regime, rents for state-owned dwellings and the prices of communal services were set far below the costs of providing services, the difference being covered by annual subsidies from state. These subsidies were discontinued at the end of 1992, creating a fiscal crisis for municipalities newly responsible for maintaining the formerly state-owned dwellings. However, the central government authorized rent increases in 1992 and 1994 that roughly offset the lost subsidies.[5]

Most municipalities, including Liberec, would like to privatize most or all of their newly acquired housing, but few have made much progress. In part, this is because local legislators are reluctant to disturb the vested rights of rental tenants, in part because property values are ill-defined, and in part because of disagreements about pricing policy. However, a major impediment to privatization has been the absence of convenient legal arrangements for joint ownership of multiple dwellings. This problem was finally resolved in March 1994 by passage of a modern condominium law that enables a municipal government to sell individual apartments to their occupants and relinquish management responsibilities to an association of the new owners.[6]

This report reviews the physical characteristics and financial performance of the current inventory of municipally owned housing in Liberec and proposes a privatization strategy for its disposition. The review shows that the city's holding include many small buildings constructed before World War II, most of which need extensive repair and are unprofitable to operate at current rent levels; and a much smaller number of large postwar apartment houses that are in better condition and are currently profitable. However, all buildings are undermaintained because rental revenue is pooled before it is allocated for maintenance.

Because rents are set by the national government, neither the city nor a private landlord can obtain the revenue that would be needed to renovate the old buildings and maintain them thereafter. Privatization of small buildings--selling them to their tenants--offers an exit from this dilemma, shifting fiscal and managerial responsibility to owner-occupants not bound by rent regulations.

Privatization of larger buildings is feasible under the new condominium law but is less urgent because they currently pay their own way. However, for these buildings also, owner-occupancy provides the best hope of longrun solvency and adequate maintenance. We think that the city should proceed to sell individual units in these buildings to their occupants and support the formation of condominium associations to manage the buildings and set the fees that all owner--including the city, as residual owner of unsold units--must pay for building services and repairs.

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[5] Directive 15/1992 of the Federal Ministry of Finance *Changes and Supplements to Directive No. 60/1964 on payments for using an apartment and payments for services related to the use of an apartment*, effective 16 January 1992 (rent increases effective 1 July 1992); and Decree No. 176 of the Ministry of Finance of the Czech Republic, *On rents for residential units and charges for services associated with using residential units*, 17 June 1993 (rent increases effective 1 January 1994).

[6] *Condominium Act of the Czech Republic*, adopted 24 March 1994; effective 1 May 1994.

II. CHARACTERISTICS OF THE MUNICIPAL HOUSING INVENTORY

During the summer of 1993, we compiled a comprehensive list of 1,881 residential properties belonging to the City of Liberec and assembled data on each property from a variety of sources, including lists maintained by the five housing management companies, a centralized list maintained by the Department of Property, and the archives of the former state management company. Below, we describe these sources, the derivation of our files, and the physical characteristics of these properties that are pertinent to housing management and privatization policy.

SOURCES OF DATA ON CITY-OWNED RESIDENTIAL PROPERTIES

All the lists mentioned above derive from records of the state housing management company (BPML). During the second half of 1991 BPML prepared a list of transferable properties; the municipal Property Department merged property identifications from this list with descriptions of the same properties taken from cadastral and tax records and with counts of rental contracts maintained by SIPO, the public financial intermediary for rent collection.

In the meantime, the five newly created housing management companies (HMCs), each a former branch office of BPML, were checking the transfer lists against their archives, which in principle included a dossier (Pasport Domu) for every property within their jurisdiction. Apparently there were informal negotiations and communications by telephone between the Property Department and the HMCs about the inclusion or exclusion of various properties in each HMC's inventory, but no systematic reconciliation. At any rate, a year later, the lists maintained by the HMCs, labeled "SEZNAMn.TXT," differed significantly from the municipal property inventory, labeled "PDOMY.TXT."

Neither source contained much information about the physical characteristics of the principal building on the property or of the individual apartments and commercial units in that building. To obtain this information, we abstracted the Pasport Domu archived by each HMC, creating a new file of machine-readable records. We located only 1,754 pertinent dossiers, as compared to 1,929 properties listed in the municipal property inventory and 1,953 listed by the management companies; but some Pasport Domu cover more than one "building"--usually a situation in which a large residential complex contained several entrances or staircases, each of which had been assigned a separate building number and street address.

During the summer of 1993, with the help of the Office of Property Management and the individual HMCs, we reconciled property identifications and basic characteristics indicated by these three sources, identifying properties that were not transferred to city ownership or that had been demolished, sold, or restituted after title was transferred to the city. In August 1993 the city owned 1,881 "active" residential properties and we had at least a partial record of the characteristics of each property. The identifications are recorded in a file labeled "MASTER.DAT"; the property descriptions are detailed in "PROP7SUM.DAT."

BUILDING AGE AND CONFIGURATION

The unit of account in this description is a parcel of land so designated by the Liberec geodetic office on the basis of property records maintained by the city. Generally speaking, such a land parcel contains one and only one major building, though there may also be freestanding outbuildings or garages. The principal buildings range from single-family houses (usually subdivided into apartments) to high-rise structures containing as many as 72 individual dwellings. In some cases, the land under a continuous structure is divided into parcels each containing an entrance and staircase that gives access to certain dwellings. In addition to dwellings, many buildings have ground-floor commercial space that is rented by the city to private enterprises, for the most part small shops providing consumer goods to the neighborhood.

Table 1 shows the distribution of the City's 1,881 residential properties by housing management company and the characteristics of each HMC's inventory in August 1993.[7] These properties contained a total of 15,383 dwellings, of which 431 were privatized under the 1966 privatization law of the CSFR. They also contained about 580 commercial units and about 400 separately rentable garage spaces.

Table 2 considers the characteristics of the buildings on these properties: the year in which the building was completed and the building's size as measured by number of residential and commercial units (total units). Three-fourths of the buildings were built before 1945 and 30 percent were built before 1900. The older buildings are usually small; 93 percent of those built before 1945 contain no more than 10 units. Structures built after 1945 are much larger, up to 72 units; many of these are built in clusters on the fringes of the urban area, using large-panel construction technology.

Table 3 is similar to Table 2, but counts dwelling units instead of buildings. It shows that approximately half of all city-owned dwellings are in small buildings and approximately half are more than 50 years old (built before 1945). Nearly 6,700 dwellings have both characteristics. Over the years, many of these dwellings have been modernized in various ways, usually by improving kitchen and bathroom plumbing or installing central heating; however, as we shall see, the buildings and utility systems in them are expensive to maintain and many have fallen into serious disrepair.

CONFIGURATION AND QUALITY OF DWELLING UNITS

Table 4 shows the configuration of the residential units. About 6 percent are small units without kitchens. Nearly 24 percent consist of one bedroom plus a room that contains the kitchen (1+k).[8] The most common configuration is two rooms plus kitchen (39.6 percent), followed by three rooms plus kitchen (26.2 percent). Less than five percent have four or more rooms in addition to the kitchen.

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[7] The HMCs are important for several reasons. One is that much of our data was compiled by the HMCs, each using its own standards and formats; so the completeness and reliability of the information concerning property and dwelling characteristics varies by HMC. Another is that the HMCs may have pursued different policies with regard to their management and repair responsibilities, the consequences of which will be reflected both in building condition and financial performance.

[8] Although the interior arrangements of these apartments are doubtless quite familiar to citizens of Liberec, they are not entirely clear to foreigners. Some data sources designate one fairly large room as the kitchen, others describe it as a combined kitchen and living room. Additional rooms were usually intended as bedrooms, but their actual use is unspecified.

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Table 1
NUMBER OF CITY-OWNED RESIDENTIAL PROPERTIES AND UNITS BY HOUSING MANAGEMENT COMPANY: AUGUST 1993

Housing Management Company	Number of Properties	Number of Residential Units: City-Owned	Privatized	Total	Commercial Units	Total Units	Garage Spaces
LEMU	342	2,282	68	2,350	254	2,604	74
RBYBAR	389	3,766	21	3,787	139	3,926	73
STAVOS	436	2,786	222	3,008	52	3,060	118
LIMIT	356	3,315	77	3,392	35	3,427	73
DOMINA	347	2,731	41	2,772	86	2,858	64
Other	9	67	2	69	13	82	(a)
None	2	5	—	5	—	5	(a)
Total	1,881	14,952	431	15,383	579	15,962	402

SOURCE: Entries for properties and residential units were tabulated from PROP7SUM.DAT, a master file of active residential properties owned by the City of Liberec in August 1993. Entries for commercial units and garage spaces come from several uncoordinated sources and are not reliable.

NOTE: The counts of residential units include 431 privatized apartments in 289 buildings owned by the city.

(a) No data available.

Table 2
NUMBER OF CITY-OWNED RESIDENTIAL BUILDINGS BY SIZE AND YEAR BUILT: AUGUST 1993

Year Built	Number of Buildings by Size (Total Units): 1-4	5-10	11-20	21-50	51-75	Unknown	Total
Bef. 1868	73	71	6	—	—	4	154
1868-1900	156	236	21	1	—	1	415
1901-1915	118	190	11	1	—	—	320
1916-1934	113	197	35	10	—	1	356
1935-1944	49	101	5	—	1	1	157
1945-1964	44	109	41	8	—	2	204
1965-1984	1	34	100	42	19	2	198
1984-1992	2	13	23	28	6	1	73
Unknown	1	—	—	—	—	3	4
Total	557	951	242	90	26	15	1,881

SOURCE: Tabulated from PROP7SUM.DAT, a master file of residential properties owned by the City of Liberec.

NOTE: Buildings are classified by "total units," the sum of residential and commercial units. The count of commercial units is incomplete but rarely affects size-class.

Table 3
NUMBER OF RESIDENTIAL UNITS BY SIZE OF BUILDING AND YEAR BUILT: CITY-OWNED RESIDENTIAL PROPERTIES, AUGUST 1993

Year Built	Number of Residential Units by Size of Building 1-4	5-10	11-20	21-50	51-75	Total
Bef. 1868	212	435	73	–	–	720
1868-1900	512	1,500	231	21	–	2,264
1901-1915	402	1,162	129	42	–	1,735
1916-1934	373	1,287	504	259	–	2,423
1935-1944	181	624	64	–	65	934
1945-1964	100	733	522	272	–	1,627
1965-1984	2	281	1,420	1,184	1,324	4,211
1984-1992	4	98	319	744	303	1,468
Unknown	1	–	–	–	–	1
Total	1,787	6,120	3,262	2,522	1,692	15,383

SOURCE: Tabulated from PROP7SUM.DAT, a master file of residential properties owned by the City of Liberec.

NOTE: Buildings are classified by "total units," the sum of residential and commercial units, but only residential units are counted in the body of the table. Unit counts are missing for 15 buildings.

Table 4
NUMBER OF RESIDENTIAL UNITS BY CONFIGURATION AND SIZE OF UNIT: CITY-OWNED RESIDENTIAL PROPERTIES, AUGUST 1993

Configuration	Residential Units, All Properties: Number	Percent of Total	Average Unit Size (m2), Properties Managed by: LEMU	LIMIT
1 room	553	4.5	24.8	27.5
2 rooms	161	1.3	(a)	41.4
1 room + kitchen	2,888	23.6	42.9	40.9
2 rooms + kitchen	4,839	39.6	63.1	58.9
3 rooms + kitchen	3,211	26.2	84.2	68.7
4 rooms + kitchen	549	4.5	118.3	99.4
5 rooms + kitchen	34	0.3	129.5	129.7
Unknown	3,148	(b)	–	–
Total	15,383	100.0	67.3	55.0

SOURCE: Estimated from PROP7SUM.DAT, a master file of residential properties owned by the City of Liberec.

NOTE: Unit configurations are based on Pasport Domu records for 1,580 buildings. Average unit sizes for properties managed by LEMU and LIMIT are based on 2,282 and 3,255 unit records, respectively.

(a) Too few cases for reliable estimation.

(b) Omitted from percentage distribution.

The last two columns of Table 4 show the average floorspace of dwellings managed by LEMU and LIMIT, by dwelling configuration. LEMU's domain is all in the central area of the city (Casts I to V) where older dwellings are concentrated; LIMIT's domain includes part of the central area (Cast I), but extends to the northeastern suburbs of the city (Casts XI-XIV). They agree closely about the size of smaller units (e.g., 1, 1+k, 2+k), but the larger dwellings in LEMU's domain seem to have larger rooms. Overall, the dwellings managed by LEMU average 67 m2 and those managed by LIMIT average 55 m2.

The government of the CSFR promulgated norms for rating individual dwellings by general quality, depending mostly on the availability and completeness of hot and cold water, heating equipment, and enclosed baths and toilets. The ratings shown in Table 5 were taken from the Pasport Domu, so may not be current--both because some apartments were modernized without updating the Pasport Domu and because the rating rules have changed over the years. However, they give a general notion of the distribution of dwellings by quality. A third fall into Category I, which requires central heating, hot and cold running water, and enclosed toilet and bath within the dwelling. On the other hand, nearly 18 percent fall into Category IV, usually because they lack a kitchen or because their toilet or bath is shared with other occupants of the building.

The last two columns of Table 5 show that dwelling floorspace does not correlate closely with dwelling quality, which is based mostly on plumbing and domestic conveniences.

CONDITION OF RESIDENTIAL BUILDINGS

In April 1993, we assisted the Office of Property Management to conduct a field survey of a scientific sample of residential buildings in order to determine their physical condition. We randomly selected 20 buildings from the list of properties managed by each of the five HMCs, for a total of 100 buildings. Each building was examined by an inspector designated by the HMC, who completed a rating sheet indicating the condition of building components and the estimated costs of needed repairs. Because the inspectors were not jointly trained in the use of the rating sheet, there may be individual biases in the ratings especially as between HMCs. However, the survey still quantifies what everyone knows in a general way: That city-owned buildings have been neglected for many years and suffer from accumulated undermaintenance.

Table 6 summarizes the ratings awarded to various components of these buildings. Very few components were rated "excellent" in any building. "Good" was the most common designation, but the parts of the building that are exposed to the weather were often rated "poor" or "dilapidated." To repair the poor and dilapidated conditions would cost an average of Kc 327,000 ($11,700) per building in the sample; one building needed Kc 7.4 million ($264,000) in repairs.

We used the data from this sample to estimate the repair needs of the entire city-owned inventory, using a statistical model that takes into account the age of building, its size, and the amount of commercial floorspace. Using this model, we estimate that it would cost almost Kc 350 million ($12.5 million) to repair the entire inventory, an average of Kc 22,728 ($812) per dwelling. For comparison, the total rent earned from these buildings (including commercial rents) in 1992 was about Kc 47 million ($1.7 million) or Kc 2,936 ($104) per dwelling.

Table 5
NUMBER OF RESIDENTIAL UNITS BY QUALITY AND SIZE OF UNIT: CITY-OWNED RESIDENTIAL PROPERTIES, AUGUST 1993

	Residential Units, All Properties		Average Unit Size (m2), Properties Managed by:	
Quality Rating	Number	Percent of Total	LEMU	LIMIT
Category I (Best)	3,716	32.4	69.2	53.2
Category II	4,461	38.9	70.8	61.8
Category III	1,243	10.8	62.7	55.0
Category IV (Worst)	2,053	17.9	46.6	49.6
Unknown	3,910	(a)	—	—
Total	15,383	100.0	67.3	55.0

SOURCE: Estimated from PROP7SUM.DAT, a master file of residential properties owned by the City of Liberec.

NOTE: Unit quality ratings are based on Pasport Domu records for 1,529 buildings. Average unit sizes for propertie managed by LEMU and LIMIT are based on 2,303 and 3,235 unit records, respectively.

(a) Omitted from percentage distribution.

Table 6
CONDITION RATINGS FOR RESIDENTIAL BUILDINGS:
SAMPLE OF 100 CITY-OWNED RESIDENTIAL PROPERTIES, APRIL 1993

Building Component	Condition Rating						
	Excellent	Good	Poor	Dilapidated	Not Observed	Not Applicable	Total
Building Interior:							
Cellar	3	74	17	4	—	2	100
Attic	1	39	10	1		49	100
Stairs	4	87	3	3	1	2	100
Halls	5	77	16	1	1	—	100
Other common areas	—	37	6	4	—	53	100
Building Exterior:							
Front facade	5	59	27	9	—	—	100
Other exterior walls	5	57	31	7	—	—	100
Roof	7	43	36	13	1	—	100
Chimneys	3	27	20	5	1	44	100
Gutters	9	31	45	15	—	—	100
Windows	—	68	30	2	—	—	100
Doors	10	58	12	1	19	—	100
Utility Systems:							
Electrical	4	89	6	(a)	1	—	100
Water	4	85	10	(a)	1	—	100
Gas	5	53	2	(a)	—	40	100
Sewage	3	81	8	(a)	1	7	100
Septic Tank	—	19	7	(a)	—	74	100

SOURCE: Field survey of a random sample of 100 city-owned buildings (20 per HMC) conducted in April 1993.

NOTE: Field observations were conducted by HMC building maintenance staffs. The inspectors were not jointly trained in the application of condition ratings, so individual biases may be reflected in scores for each HMC.

(a) Utility systems were rated on a three-point scale.

Table 7 shows how these costs vary by age and size of building. The most expensive dwellings to repair are those in very old and very small buildings--about Kc 98,000 ($3,500) per dwelling. Following down the first column of the table, one sees that repair costs drop sharply for newer buildings; this pattern repeats in each column, though the absolute amount decreases substantially as building size increases. (Of course, few of the very old buildings are large and few of the large buildings are old, so the upper right and lower left portions of the table are either empty or contain few cases.)

That older buildings need more repairs per dwelling than new ones hardly needs explaining; but controlling for age, we also find that the repair cost per dwelling drops sharply as building size increases. For some components of a building, repair costs don't increase in proportion to the size of the building; for example, a roof of given size (say, 100 m2) can equally well cover a building of two floors containing 8 apartments or 6 floors containing 24 apartments, so replacing the roof would cost more per dwelling for the smaller building.

Table 7
ESTIMATED REHABILITATION COST BY SIZE OF BUILDING AND YEAR BUILT: CITY-OWNED RESIDENTIAL BUILDINGS, APRIL 1993

Year Built	Size of Building (Number of Units) 1-4	5-10	11-20	21-50	51-75	Total
	Estimated Rehabilitation Cost per Unit (Kc)					
Bef. 1868	98,126	52,104	41,983	(a)	(a)	74,096
1868-1900	73,155	41,903	36,901	16,316	(a)	53,363
1901-1915	53,982	35,683	35,972	16,963	(a)	42,383
1916-1934	46,181	28,419	19,085	14,450	(a)	32,759
1935-1944	34,135	22,744	26,598	(a)	36,932	26,536
1945-1964	33,615	17,556	13,020	9,569	(a)	19,817
1965-1984	31,886	10,682	9,304	7,237	2,961	8,600
1985-1992	41,023	9,107	9,492	6,463	9,827	9,149
Total	60,125	32,239	16,140	8,214	5,852	36,936
	Number of Buildings with Cost Estimates					
Bef. 1868	73	71	6	0	0	150
1868-1900	156	236	21	1	0	414
1901-1915	118	190	11	1	0	320
1916-1934	113	197	35	10	0	355
1935-1944	49	101	5	0	1	156
1945-1964	44	109	41	8	0	202
1965-1984	1	34	100	42	19	196
1985-1992	2	13	23	28	6	72
Total	556	951	242	90	26	1,865

SOURCE: The costs of needed repairs for individual buildings were estimated from a statistical model fitted to data from a field survey of 100 buildings conducted in April 1993. Inventory characteristics are from PROP7SUM.DAT, a master file of residential properties owned by the City of Liberec. The master list includes 1,881 properties, but we omitted a few that lacked pertinent data on building characteristics.

NOTE: The statistical model used to estimate the cost of needed major repairs has the following form:

Total cost (Kc/bldg) = 7,688 * dwelling units
- 74.2 * (units)2 + 1,739 * building age (yrs)
+ 1,713 * commercial floorspace (m2)

In this model, the regression constant was suppressed in order to avoid negative values for small, new buildings; all coefficients have t-values greater than 1.6. Cost per unit, reported in this table, is the predicted total cost per building divided by the total units (residential plus commercial) in the building.

(a) The inventory contains no buildings in this category.

III. FINANCIAL PERFORMANCE OF HOUSING MANAGEMENT COMPANIES

As mentioned in the introduction, the city's Office of Property Management contracted in 1992 with five private firms to manage nearly all of the city-owned residential properties.* These firms are responsible for the physical maintenance of the buildings, including city-owned heating, kitchen, and bathroom appliances in the individual apartments. Although each firm has a small staff of workmen and maintenance inspectors, most maintenance work is contracted to other enterprises. The firms have few responsibilities aside from overseeing general building maintenance. They do not choose or evict tenants, set or collect rents, or referee disputes between tenants.[10] Each of the five companies devised its own record system, which typically did not track income or expenses by property; the financial reports required by the city allowed the HMCs to aggregate financial accounts for all properties they managed.

In 1992, their first year of operation, the HMCs obtained revenue from several sources: tenant payments for rent and communal services, general and special subsidies from the municipal and federal governments, and a monthly fee of Kc 45 per unit under management, paid by the city. With these resources, the HMCs were expected to maintain the buildings, pay the suppliers of communal services, and pay their own staff and operating expenses.

Maintenance standards were not clearly specified by contract; instead, the HMCs understood that their expenditures for maintenance must not exceed the sum of shelter rent collected from the tenants and the annual maintenance subsidy granted to the city by the federal governments. A few buildings that were in very bad condition were selected for rehabilitation, with individual budgets approved by the city government; in certain other buildings, federal subsidies were used to replace obsolete heating systems with natural gas furnaces. For all other buildings, the HMCs responded to emergencies such as leaking roofs, heating failures, or stopped drains; responded to most tenant complaints about other less urgent problems; and undertook a small amount of preventive maintenance.

During the year, shelter rents were roughly doubled by federal decree and the prices of most communal services (electricity, gas, water, sewer service, etc.) increased substantially. Federal subsidies paid about 40 percent of the cost of repairs, maintenance, and rehabilitation, and municipal [federal?] subsidies were used to ease the tenants' transition to higher housing and service costs. At the end of 1992, all federal subsidies terminated; thereafter, if local governments wanted to subsidize municipally owned housing, they had to find the money in their own budgets. Also, the City of Liberec discontinued paying the management fee from public funds; beginning in 1993, each HMC's fee is paid from rent receipts for the properties it manages.

* Nine properties containing 69 dwellings and 12 commercial units are individually managed by small firms. Because of the difficulties of dealing with so many small firms, we learned very little about the management of these properties.

[10] Waiting lists for municipal dwellings are maintained by the Office of Property Management, which selects the tenants for vacant units. Rather than collecting rent and service charges for their tenants, the HMCs provide a list of each tenant's obligations to a state-owned fiscal intermediary called SIPO. The tenants pay SIPO each month; SIPO maintains the payment records, credits receipts to the appropriate HMC account and periodically informs the HMCs of delinquencies. Disputes between tenants or between tenants and the HMC are resolved by the Office of Property Management. Evictions are almost impossible under Czech law, even when a tenant does not pay his rent.

Table 8 summarizes the financial performance of each of the five HMCs for 1992, their first year of operation as private enterprises under contract to the city. (This table does not include financial data for the nine buildings that were managed individually; see note 9 above).

Table 8A shows earned income and accounts receivable. In 1992, the five HMCs together earned incomes totaling Kc 135.4 million. About 73 percent of this total was billed to tenants; federal and municipal subsidies accounted for 21 percent, and the contractual management fee accounted for the remaining 6 percent.

If all tenants had paid the amounts they were billed for rents and communal service fees in full and on schedule, the five HMCs would have received revenues from tenant payments equal to Kc 98.7 million: Kc 36.8 million from dwelling rents, nearly Kc 10.0 million was from commercial rents, and Kc 52.0 million for communal services. In principle, the rent payments are available to support the HMCs' maintenance activities, whereas the tenants' payments for communal services reimburse the HMC for its payments to the service providers. However, at the end of the year, tenants were delinquent in the amount of Kc 4.8 million, creating cash-flow problems for two of the HMCs.

Moreover, the HMCs have continued the retroactive settlement practices of their predecessor agency, BPML: The tenants are billed a fixed amount each month for rent and each service (including metered services). Then, at the end of the year the tenant is billed for underpayments or gets a refund for overpayments. When service charges were raised sharply in July 1992, three of the HMCs immediately increased service charges to their tenants and two billed level charges throughout the year. The retroactive accounting was slow; the tenants' full obligations for 1992 were not determined until mid-1993, and the HMCs did not collect balances due until late in the year if at all.[11]

Table 8B summarizes expenses for each HMC. During 1992, the HMCs together spent or obligated Kc 122.8 million (including the management fee). They paid Kc 54.8 million for communal services and Kc 59.4 million for building maintenance and repairs, rehabilitation, and replacement of appliances. The excess cost of communal services was funded by an advance of Kc 3.3 million from the city, to be recovered by retroactive billing at the end of 1992. We do not know how the management fee of Kc 8.6 million divided between management expenses and profit, but the total authorized fee is chargeable as an expense.

Table 8C combines income and expense totals from Tables 8A and 8B. Thus, in 1992 the five HMCs jointly reported a surplus of earned income over expenses in the amount of Kc 12.7 million. However, this surplus was partly theoretical because some residential and commercial tenants did not pay on schedule; the cash receipts of the five HMCs totaled only Kc 130.6 million and the cash surplus was only Kc 7.8 million. This surplus was credited to the city, as the owner of the property managed by the HMCs.

[11] This casual approach to cash-flow management is typical of state enterprises under the former socialist regime; we think it will be a major issue in the emerging mixed economy. The profits of private enterprises depend on timely collection of amounts due and carefully scheduled payments of obligations. The HMCs' management contracts partly insulate them from these problems: Their profits come out of a fixed management fee and are unaffected by delinquent tenant payments. However, they do need cash to pay for building maintenance and communal services; so delinquent receivables could affect their operating policies.

Table 8A
INCOME SUMMARY FOR FIVE HOUSING MANAGEMENT COMPANIES: 1992

Line	Item	LEMU	RYBAR	STAVOS	LIMIT	DOMINA		Total
		Housing Management Company						
		Earned Income from Operations (1,000 Kc)						
	Rent and communal services:							
1	Residential rent	7,422	8,519	7,062	7,448	6,301		36,752
2	Commercial rent	7,505	584	890	634	375	(a)	9,988
3	Payment for heat	3,208	10,111	8,004	9,763	5,665		36,751
4	Payment for other services	1,802	3,541	3,094	4,057	2,720		15,214
5	Total from tenants	19,937	22,755	19,050	21,902	15,061		98,705
	Municipal and federal subsidies:							
6	Water and heat advance	380	810	790	840	520		3,340
7	Repair and maintenance	3,353	796	4,005	3,046	3,714		14,914
8	Replacing gas system	1,544	1,868	3,746	1,960	740		9,858
9	Total from subsidies	5,277	3,474	8,541	5,846	4,974		28,112
	Other income:							
10	Management fee	1,434	2,008	1,682	1,868	1,603		8,595
11	Bank interest	—	31	—	—	—		31
12	Total other income	1,434	2,039	1,682	1,868	1,603		8,626
13	Total income, all sources	26,648	28,268	29,273	29,616	21,638		135,443
		Account Receivable (1,000 Kc)						
14	Residential rent and services	(367)	(825)	(594)	(643)	(640)		(3,069)
15	Commercial rent and services	(1,281)	(393)	(3)	(70)	—	(a)	(1,747)
16	Total accounts receivable	(1,648)	(1,218)	(597)	(713)	(640)		(4,816)

SOURCES: Entries are based on accounts submitted by the five HMCs to the Office of Property Management in May 1993 and interviews with the HMC staffs.

NOTE: Earned income includes all amounts billed to tenants for 1992 and amounts due from he City Treasury (subsidies and management fee). Accounts receivable are amounts billed to residential and commercial tenants but not paid during 1992. In 1993, the HMCs will also retroactively bill additional service charges where applicable.

(a) DOMINA's accountant reported only Kc 41,624 of commercial rent, which was clearly an understatement. From the number of commercial units in DOMINA's buildings, we estimate that earned commercial rent was about Kc 375,000. We are unable to estimate commercial accounts receivable.

Table 8B
EXPENSE SUMMARY FOR FIVE HOUSING MANAGEMENT COMPANIES: 1992

		Housing Management Company					
Line	Item	LEMU	RYBAR	STAVOS	LIMIT	DOMINA	Total
		Expenses (1,000 Kc)					
	Payments for communal services:						
17	Payment for heat	5,817	11,128	8,332	10,237	5,719	41,233
18	Payment for other services	2,435	3,798	2,742	2,117	2,478	13,570
19	Total for services	8,252	14,926	11,074	12,354	8,197	54,803
	Payments for building maintenance:						
20	Maintenance and minor repairs	8,655	2,005	6,272	4,578	1,666	23,176
21	New fixtures installed	1,610	1,526	505	3,295	786	7,722
22	Replacing gas system	—	6,124	3,746	975	740	11,585
23	Major repairs, completed	4,127	79	5,867	1,894	1,828	13,795
24	Major repairs, in progress	—	994	—	(a)	2,121	3,115
25	Total maintenance expense	14,392	10,728	16,390	10,742	7,141	59,393
	Other expense:						
26	Management services (b)	1,434	2,008	1,682	1,868	1,603	8,595
27	Total expense, all purposes	24,078	27,662	29,146	24,964	16,941	122,791

SOURCES: Entries are based on accounts submitted by the five HMCs to the Office of Property Management in May 1993 and interviews with the HMC staffs.

NOTE: STAVOS was unable to provide any information on actual payment for communal services. We estimated those payments from corresponding data for the other four HMCs. Of the payments for building maintenance, only line 25 is reliably and clearly reported by all five HMCs. STAVOS and DOMINA reported lines 20-24 clearly; corresponding entries for LEMU, RYBAR, and LIMIT are estimated from their reports for slightly different categories of expense.

(a) Not reported by project: amounts expended are presumably included in line 23.

(b) The HMCs do not rep[illegible]ual management expenses. They receive a fixed fee per unit under management, from which all administrative expenses mu[illegible] paid; any residual is profit for the HMC's owners.

Table 8C
NET INCOME AND CASH FLOW FOR FIVE HOUSING MANAGEMENT COMPANIES: 1992

		Housing Management Company					
Line	Item	LEMU	RYBAR	STAVOS	LIMIT	DOMINA	Total
		Amount (1,000 Kc)					
	Earned income:						
28	Rent and communal services	19,937	22,755	19,050	21,902	15,061	98,705
29	Municipal and federal subsidies	5,277	3,474	8,541	5,846	4,974	28,112
30	Management fee and other (a)	1,434	2,039	1,682	1,868	1,603	8,626
31	Total earned income	26,648	28,268	29,273	29,616	21,638	135,443
	Expense:						
32	For communal services	8,252	14,926	11,074	12,354	8,197	54,803
33	For building maintenance	14,392	10,728	16,390	10,742	7,141	59,393
34	For management services	1,434	2,008	1,682	1,868	1,603	8,595
35	Total expense	24,078	27,662	29,146	24,964	16,941	122,791
36	Net income and cash flow:						
37	Earned income minus expense	2,570	606	127	4,652	4,697	12,652
38	Accounts receivable	(1,648)	(1,218)	(597)	(713)	(640)	(4,816)
39	Net cash flow	922	(612)	(470)	3,939	4,057	7,836

SOURCES: Entries are based on accounts submitted by the five HMCs to the Office of Property Management in May 1993 and interviews with the HMC staffs. See Tables 8A and 8B for details.

(a) Entry for Rybar includes Kc 31,490 of interest on bank deposits.

We have not learned how 1993 income and expenses worked out; the HMCs did not close their books for 1992 until mid-1993, and may not even yet have closed their 1993 books. However, we have roughly estimated the effects of the 1992 rent and service-charge increases on 1993 income and the effects of general price inflation on the maintenance and repair expenses of the HMCs.

Earned income from tenant payments increased by about 21 percent because of federal decrees governing these payments; but the termination of federal subsidies for maintenance and the municipal subsidy for the management fee imply that total earned income probably decreased by about 12 percent, from Kc 135 million to Kc 119 million.

From national price indexes, we estimate that the cost of building maintenance and repair went up by about 11 percent from mid-1992 to mid-1993. The HMCs also paid about 15 percent more for communal services. We suppose that the city responded to the implied deficit by reducing budgeted expenditures for major repairs from Kc 20 million to (perhaps) Kc 15 million.[12]

We also lack information on the settlement of delinquent accounts carried over from 1992 and the settlement of retroactive bills for communal services used in 1992. If collections were poor and delinquency rates continued high in 1993, major fiscal problems will emerge in 1994. It should be noted that the housing management companies cannot be held responsible for delinquencies; they do not choose their tenants, they do not collect the rent and service fees, they do not even know about delinquencies until well after they occur, and they cannot evict a delinquent tenant. We think that collections would improve if rents and service fees were paid directly to the management companies and HMC profits depended on keeping delinquency rates low. It would help considerably if the civil code were revised so that landlords, whether public or private, could evict tenants who did not fulfill their obligations.

[12] In 1992, the city received about Kc 9.9 million in federal subsidies for converting heating systems to natural gas, but reported expenses of Kc 11.6 million for this purpose. We do not know whether the balance of Kc 1.7 million was paid from federal subsidies in 1993, nor whether the conversion program continued in 1993.

IV. FINANCIAL PERFORMANCE OF INDIVIDUAL PROPERTIES

Since the beginning of 1993, the City of Liberec has operated its housing inventory on the principle that total rental revenue should pay for all building maintenance and management fees. This is a new policy for rental housing; when the inventory was owned by the state, rents were routinely supplemented by state subsidies. Even so, the funds available to the state housing management companies never seemed adequate to maintain residential properties in good condition. In Sec. II, we discussed the cumulative maintenance deficit for residential buildings in Liberec now owned by the city.

However, the city does not control residential rent schedules; the national government regulates the rents that can be charged by both private and public landlords. If the national schedules do not provide enough revenue to maintain residential buildings, the city must make some hard choices--either allow the buildings to deteriorate or subsidize them from general tax revenues.

This section examines the expected financial performance of city-owned properties in 1994 using individual properties as the units of account. In our judgment, the financial reports prepared for the Office of Property Management by the HMCs do not provide an adequate basis for asset management. We hope to demonstrate the value of property-level financial data for management decisions by estimating 1994 operating revenue and operating expense for each property in a sample of city-owned residential properties and showing how the information can be used.

The sample consists of 698 residential properties managed by LEMU and LIMIT, although the exact number used for various analyses varies because of missing data. In principle, what we have done for this sample of properties could be done for all city-owned residential properties. However, considerable work was needed to organize, audit, and improve the records we received from the HMCs and the Office of Property Management, and some records we would need for complete coverage apparently do not yet exist in machine-readable form. We chose LIMIT's properties because LIMIT has the best machine-readable records of any HMC; we chose LEMU's properties because its domain in central Liberec, including many old buildings and many buildings with commercial uses. The properties managed by the other three HMCs resemble LIMIT's inventory in most respects.

The 698 properties we analyzed do not comprise a representative sample of the entire inventory of city-owned residential properties, but they do encompass the full range of property types, from converted single-family dwellings to high-rise apartment buildings, from buildings constructed early in the 19th Century to some constructed after 1980, from single-room apartments to apartments of four rooms plus kitchen, and from apartments of Category I to those of Category IV. For this reason, the evidence from the sample will help us formulate a privatization strategy that takes account of the most salient property characteristics.

OPERATING REVENUES FOR INDIVIDUAL PROPERTIES IN 1994

Since the beginning of 1993, the operating revenue of city-owned residential properties has consisted essentially of residential and commercial rents and tenant payments for communal services; though there may have been some continued subsidy payments from the national government during 1993, by 1994 this source of revenue was surely extinguished. As explained in Sec. III, the tenant payments for communal services are basically passed through to the suppliers of the services under their contracts with the HMCs. We decided therefor not to include tenant payments for communal services as operating revenue nor HMC payments to suppliers as operating expense. We are therefore left with residential and commercial rents as the principal sources of operating revenue.

State Regulation of Residential Rents

When the federal government transferred state-owned housing to municipal ownership in 1991, rents were governed by a 1964 decree that based the rent of each dwelling on its floorspace (distinguishing "living space" from "other space"), its quality category (reflecting the presence or absence of central heating and private bath and toilet), available utility services (gas, electricity, water, and sewage service), number and sizes of windows, doors, balconies, and terraces, height of ceilings, items of kitchen equipment provided by the state, and location in the building (floor, depending on availability of an elevator. Additional adjustments were possible to reflect especially good or bad quality, convenient or inconvenient location, the number and ages of household members in relation to living space, the health of the occupants.

This complex regulation was clearly the result of years of unsystematic amendment. To meet all its requirements, the state housing management company had to prepare a lengthy document for each apartment called the "Evidencni List" that described the apartment and its occupants in stultifying detail and provided a fill-in-the-blanks procedure for calculating the appropriate rent. The resulting rents were in fact so low that it probably would have been economical to abolish them altogether.[13]

In January 1992, the federal Ministry of Finance amended the 1964 directive to provide more rental revenue for the new municipal owners of the former state-owned housing stock, in preparation for the abolition of annual maintenance subsidies.[14] Beginning in July 1992, basic rents per m2 were doubled for all except Category IV apartments, various building services that were formerly included in basic rent became added charges, and discounts for households with children (formerly up to 50%) were abolished. However, this directive retained the complex detail of its predecessor.

In June 1993 (after partition of the Czech and Slovak Republics), the Czech Ministry of Finance redrafted and greatly simplified rent regulations, eliminating most considerations of household characteristics, but retaining the basic principles of space, quality, and equipment as the basis for shelter rent.[15] The distinction between living space and other space within the apartment was abolished, and the

[13] I do not have a translation of Directive No. 60/1964 *On Payments for the Use of an Apartment and Payments for Services Related to the Use of an Apartment*; my account of its provisions is based on secondary sources, including the text of Directive 15/1992, discussed below. As I understand these sources, the basic annual rent for a dwelling of Category I was Kc 26/m2 of living space and Kc 12/m2 for other space. For a typical apartment of two rooms plus kitchen, private bath and toilet, the basic rent would have amounted to Kc 1,350/year or about Kc 113/month. In 1991, the average household (2.5 persons) income was about Kc 40,000/year, rising to Kc 50,000 in 1992. In 1992, rent and communal services, including metered gas and electricity, amounted to Kc 2,913 for the average household, or 5.8 percent of income. (*Statistical Yearbook 1993 of the CR*, Tables 6-6 and 6-8.)

[14] Directive 15/1992 of the Federal Ministry of Finance, amending Directive No. 60/1964; although some provisions were effective on 16 January 1992, the rent increases were postponed until 1 July 1992. Because this Directive is in the form of an amendment to a document I do not have, its effects are not always obvious--for example, when a paragraph of Directive No. 60/1964 is canceled without revealing its contents.

[15] Czech Ministry of Finance, Decree No. 176 of 17 June 1993, *On Rents for Residential Units and Charges for Services Associated with Using Residential Units.* It sets maximum rents for all existing apartments, both municipally owned and privately owned, except apartments in villas (family houses) occupied by a new tenant; and for apartments built or substantially rebuilt with the aid of public funds after 30 June 1993. Rents are not regulated for dwellings constructed entirely with private funds after 30 June 1993. Special regulations govern cooperative

apartment was credited with half the floorspace of attached balconies and terrace and shared cellar or storage spaces elsewhere in the building. Beginning 1 January 1994 the following basic rent schedule applies:

Quality of Dwelling	Basic Rent (Kc/m2 of Total Floorspace)	
	Monthly Amount	Annual Equivalent
Category I	6.00	72.00
Category II	4.50	54.00
Category III	3.50	42.00
Category IV	2.50	30.00

The basic rent for each dwelling is subject to discounts of 3 to 10 percent for conditions that detract from livability but are not clearly reflected in the quality categories listed above. These include lack of electrical or gas service for cooking, lack of hot water for bathing, bath or toilet outside of the apartment (even though for the sole use of the occupants), ceiling height less than 3.4 m, apartment located below grade or above the fifth floor without an elevator. Furthermore, at the discretion of local officials, the basic rent for a specific building can be either increased by 20 percent or decreased by 15 percent to reflect the amenities of its environs.[16] In addition, the landlord is allowed to amortize the cost of kitchen appliances that he provides.

Rough calculations for exemplary cases indicate that a family occupying the same dwelling in 1991 and 1994 would find its shelter rent, including equipment charges, increased by a multiple of 3 to 4, depending on the characteristics of the dwelling and of the family. In addition to the increased shelter rent, the family would be paying substantially higher rates for electricity and communal services. Incomes have also increased, but not proportionately; probably, the housing costs of the average renter have gone from less than six percent of income in 1991 to at least 20 percent in 1994. (By way of comparison, the median ratio of housing costs to income for renters in the United States in 1990 was about 26 percent; for homeowners with mortgages--a more prosperous group--the corresponding ratio was about 21 percent.)

Revenue from Residential Units

To prepare for the rent increases allowed by Decree No. 176, Liberec's Office of Property Management instructed each HMC to update the Evidencni List for every dwelling under its management and calculate the allowable rent under the new schedule. This work apparently proceeded slowly. At the beginning of March 1994, we were able to obtain files detailing the new rents and service charges for individual dwellings on properties managed by LIMIT and DOMINA and a property-level summary of similar data for RYBAR. Neither LEMU nor STAVOS were then able to provide such data in machine-

apartments built after 1958, apartments administered by the Diplomatic Service, and apartments rented by nonresident foreigners, foreign embassies, and diplomatic missions.

[16] See Article 9 of Decree 176. It does not specify amounts; those given in the text are for towns of more than 50,000 inhabitants, and can be applied to no more than 30 percent of all dwellings in the jurisdiction. My source is the Deputy Mayor of Liberec.

readable form. Nor did we obtain updated Evidencni Lists for any of the five HMCs, although we did have earlier lists, obtained in May 1993.

To analyze the fiscal performance of city-owned residential properties, we needed revenue data for individual properties. The principal source of revenue is residential rent, so we sought to summarize 1994 residential rent by property. We began with LIMIT's properties because we knew LIMIT to be a well-managed firm. Nonetheless, considerable work was required to audit the 3,400 dwelling-rent records provided by LIMIT, fill in missing data, correct obvious errors, and assemble the records by property for the 356 properties under management by LIMIT at the beginning of 1994.

Table 9 shows how shelter rents vary with their two most important determinants, floor area and dwelling quality. The data are for 3,369 dwellings managed by LIMIT, whose staff calculated the rents by applying the rules of Decree No. 176 to the physical characteristics of the apartments.[17] Following across any row of the upper panel shows how rents vary with dwelling quality, as specified in Decree No. 176 and shown in the text table above. Following a column down shows how rents vary with floorspace, holding quality constant. Shelter rents range from as little as Kc 59/month for a very small apartment of Category IV to more than Kc 700/month for a very large apartment of Category I. The overall average for dwellings managed by LIMIT is Kc 331/month ($11.82).[18]

In the course of our work with the LIMIT rent records, we learned that we could reliably estimate shelter rent by applying 1994 rent regulations to the physical characteristics of a dwelling as reported in its Evidencni List. Subsequently, we used this method to estimate shelter rents for dwellings managed by LEMU. The results are consistent with the tests we could apply, so in the absence of data on the actual 1994 rents scheduled by LEMU, we will use our estimates.

Revenue from Commercial Units and Garages

In addition to residential units, some city-owned residential properties include ground-floor commercial units or garage spaces. In 1992, the five HMCs received nearly Kc 10 million from commercial and garage rentals, but this source of revenue is not evenly distributed (see Table 8.A, above). LEMU, which manages most city-owned residential property in central Liberec, took in Kc 7.5 million in rent from offices, retail shops, restaurants, and other businesses. The other four HMCs between them took in only Kc 2.5 million, mostly from small retail shops dealing in convenience goods for neighborhood residents and from garage spaces rented to the property's residential tenants.

[17] We audited LIMIT's rent calculations and concluded that in over 90 percent of the cases they slightly underestimated "basic rent" pursuant to the provisions of Decree No. 176; however, we were unable to identify a systematic reason for the errors. It is possible that they based their calculation on remeasured floor areas not available to us.

[18] Although the file obtained from LIMIT includes fields for 11 different service charges, it is clear from internal evidence that this portion of the record was incomplete. In particular, space-heating charges, had been entered only for Category I apartments. The records that look nearly complete suggest that service charges, which are dominated by space-heating costs, generally run about 2.7 time shelter rent, implying that the average total of shelter rent plus service charges was about Kc 1,225/mo ($43.74). That figure does not include electricity metered to individual dwellings or telephone service.

Table 9A
SHELTER RENT BY FLOOR AREA AND QUALITY OF DWELLING: RESIDENTIAL UNITS MANAGED BY LIMIT HMC, 1994

Floor Area (a) (m2)	(Best) I	Quality Category II	III	(Worst) IV	Total
		Average Shelter Rent (Kc/month)			
10.1-20.0	136	—	—	59	128
20.1-30.0	188	173	141	87	178
30.1-40.0	254	215	159	115	232
40.1-50.0	286	249	189	136	259
50.1-60.0	382	304	226	163	349
60.1-70.0	429	342	253	182	397
70.1-80.0	475	383	293	203	419
80.1-90.0	529	425	357	246	464
90.1-100.0	648	470	324	250	524
Over 100.0	711	548	566	340	587
Not reported	388	325	208	161	337
All sizes	355	327	224	151	331
		Number of Residential Units(b)			
10.1-20.0	32	—	—	5	37
20.1-30.0	158	5	5	15	183
30.1-40.0	404	37	26	53	520
40.1-50.0	295	128	29	36	488
50.1-60.0	593	244	21	31	889
60.1-70.0	485	130	19	27	661
70.1-80.0	115	81	13	9	218
80.1-90.0	55	47	6	5	113
90.1-100.0	26	22	6	3	57
Over 100.0	24	32	1	7	64
Not reported	84	31	6	18	139
All sizes	2,271	757	132	209	3,369

SOURCE: Dwelling unit records prepared by LIMIT in 1993 and 1994.

NOTE: Shelter rent includes payment for space and for equipment supplied by the landlord. In principle it may include discounts for specified inconveniences, premiums for business use of a residential unit, or adjustments for neighborhood quality; the LIMIT records include 100 discounts, but no other adjustments. The shelter rents reported here were calculated by LIMIT except for 76 cases in which we estimated missing rents from dwelling characteristics.

(a) Total floor area within the apartment, including kitchen, bath, toilet, halls, and closets as well as living and bedrooms. Does not include balconies, terraces, or allocated cellar storage space, even though half the floor area of such spaces should be counted in the rent calculation.

(b) Number of residential units for which shelter rent is reported or estimated.

Table 9B
SHELTER RENT BY FLOOR AREA AND QUALITY OF DWELLING: RESIDENTIAL UNITS MANAGED BY LEMU HMC, 1994

Floor Area (a) (m2)	(Best) I	Quality Category II	III	(Worst) IV	Total
		Average Shelter Rent (Kc/month)			
10.1-20.0	117	—	--	41	93
20.1-30.0	152	120	90	64	100
30.1-40.0	206	160	127	86	160
40.1-50.0	277	205	158	113	195
50.1-60.0	336	250	192	137	262
60.1-70.0	384	289	230	157	330
70.1-80.0	445	333	258	185	378
80.1-90.0	503	378	293	208	409
90.1-100.0	566	417	328	234	455
100.1-110.0	632	466	361	261	532
110.1-120.0	681	505	394	291	566
120.1-130.0	745	552	437	319	644
130.1-140.0	801	591	—	—	741
140.1-150.0	861	638	484	—	704
Over 150.0	970	718	—	—	824
Not reported	—	—	—	100	100
All sizes	429	327	225	121	343
		Number of Residential Units(b)			
10.1-20.0	21	—	—	10	31
20.1-30.0	22	14	7	37	80
30.1-40.0	80	42	12	46	180
40.1-50.0	46	70	30	41	187
50.1-60.0	115	195	33	32	375
60.1-70.0	239	174	25	19	457
70.1-80.0	162	138	23	10	333
80.1-90.0	68	120	15	5	208
90.1-100.0	53	74	10	8	145
100.1-110.0	50	55	5	2	112
110.1-120.0	31	25	4	5	65
120.1-130.0	31	20	3	2	56
130.1-140.0	25	10	—	—	35
140.1-150.0	6	11	1	—	18
Over 150.0	8	11	—	—	19
Not reported	—	1	—	1	2
All sizes	957	960	168	218	2,303

SOURCE: Estimated from dwelling unit records prepared by LEMU in 1993 and from rent regulations given in Decree No. 176 (1993) of the Ministry of Finance.

NOTE: Shelter rent includes payment for space and for equipment supplied by the landlord. In principle it may include discounts for specified inconveniences, premiums for business use of a residential unit, or adjustments for neighborhood quality; we did not have this information about individual dwellings, so did not adjust shelter rent.

(a) Total floor area within the apartment, including kitchen, bath, toilet, halls, and closets as well as living and bedrooms; includes half the floor area of balconies, terraces, and allocated cellar storage space.

(b) Number of residential units for which shelter rent is reported or estimated.

Commercial and garage rents are not regulated by the state; the Office of Property Management negotiates them individually. A partial list of commercial leases prepared for us in May 1993 indicates that commercial rents then ranged from 96 Kc/m2/year to as much as 1,000 Kc/m2/year, but over half of the listed contracts indicated rents of exactly Kc 500/m2/year.[19] The starting dates of these leases were nearly all in 1992, mostly in January 1992, so it is likely that most of the rental agreements were simple renewals of leases negotiated earlier by the state housing management company.

Many of the contracts were apparently renegotiated sometime during 1993. The Office of Property Management provided us with a list of 254 commercial and 74 garage units managed by LEMU dated "1994" which includes floorspace and rent per m2. In many instances where comparison is possible, the space-rent for 1994 was double or triple the value for 1992; about 39 percent of the commercial space-rents are now Kc 1,000/m2/year or more, and a few are as high as Kc 4,000/m2/year. Altogether, LEMU anticipated receipts from commercial and garage units of more than Kc 18 million for 1994, as compared to Kc 7.5 million in 1992.[20]

We had hoped to compile a property-level list of commercial and garage rentals that we could combine with our data on residential rents--especially for LEMU, whose commercial rents generate about twice as much income as their residential rents. Because of the data-quality problems discussed in the preceding footnote, we will not do so. However, it is important for the reader to understand the relationship between unregulated and regulated rents as revealed by the City's achievements as a commercial landlord.

Decree No. 176 of the CR Ministry of Finance sets maximum 1994 residential rents for dwellings of Category I (best quality) at Kc 72/m2/year. The Office of Property Management in Liberec routinely rents garage spaces for Kc 96 to Kc 165/m2/year! Commercial rentals routinely yield from 7 to 20 times as much revenue (Kc 500 to Kc 1,500/m2/year) as top-quality residential units in the same building. Although it is common in western Europe and America for ground-floor commercial units to yield higher space rents than residential units on the upper floors of apartment blocks, the disproportion is never so large and is limited to high-traffic streets.

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[19] This information comes from NEBYT2.DAT, a file of rental contracts prepared by the Office of Property Management. It does not include garage spaces (approximately 400 altogether) and seems to be seriously incomplete for commercial units; it reports only 100 commercial rental contracts for LEMU, whereas the HMC lists (without details) about 250.

[20] According to the Office of Property Management, the expected annual revenue shown in this listing includes both space rentals and payment for unspecified building services. When we multiplied the indicated floorspace by the indicated rent/m2 to calculate space rent separately, the results were often unreasonable. For example, the expected revenue from one commercial unit of 94 m2 was Kc 6,282 but the calculated rent (at Kc 1,500/m2) was Kc 141,000. In other cases, the calculated rent was far below the expected annual revenue, so that the implied service charges were nearly as much as the rent. The calculated rent exceeded the expected annual revenue for 71 out of 254 commercial units and 13 out of 74 garages; the aggregate of calculated rent exceeded the aggregate expected annual revenue by Kc 1.6 million.

A careful audit of the data suggested explanations of only a few of these anomalies. Moreover, the list includes 10 properties that do not appear on any inventory of city-owned residential property that we have seen. We concluded that, except as background for our general remarks in the text, the data are unusable.

OPERATING EXPENSES FOR INDIVIDUAL PROPERTIES

Although the HMCs report annually to the city on the expenses they incur in the management of city-owned properties, the reporting requirements are minimal. When we examined the expense data available for 1992, we found that the HMCs were allowed to aggregate their expenses for the operation of all buildings into a single account, divided into a few general categories of expense. Some maintained more detail for internal accounting, but none of the HMCs was able to summarize expense by property--the primary decision unit for management purposes. We urged the Office of Property Management to require reporting for individual properties in 1993 and thereafter, but have seen no indication that this requirement was adopted.

Roughly half of the HMC expenses in 1992 consisted of "pass-through" items: service charges that the HMC paid on behalf of the tenants, from whom full reimbursement was subsequently sought. For example, the HMCs jointly paid about Kc 41 million to a municipal enterprise that provides steam heat to city-owned residential buildings. The tenants whose dwellings were heated in this manner were billed monthly for heat, based on the heated floor area of their dwellings. The amount billed rarely matched exactly the amount paid out by the HMCs; at the end of the year the tenants' individual accounts were recalculated and the balances were settled by refunds or additional payments.

Although in principle this system should leave the HMC with no net annual expense for heat, the facts are different. If a tenant does not pay the amount billed to him for heat, the HMC must cover the deficit from rental revenues or from subsidies provided by the municipality or the state. Unfortunately, the payment system is so arranged that the HMC may not even learn about a delinquent account until three months after the event.[21] At the end of 1992, residential accounts receivable (including both space rent and service charges) amounted to Kc 3.1 million (see Table 8A, above).

We discovered no practical way to obtain data on communal service expenses for individual properties from the HMCs, because they do not have that information. After considerable effort, we did manage to compile the summaries for each HMC that are reported in Table 8B, covering both communal services and building maintenance. In addition, we were able to acquire building-level detail concerning the second major component of HMC expenses, their outlays for building maintenance. These expenses are discussed below.

Building Maintenance Expense by Property

We investigated building maintenance expense for individual properties by examining the maintenance records of LIMIT, one of the five HMCs managing city-owned properties. LIMIT had especially good records because the firm installed a computer-based system for tracking maintenance activity when it contracted with the city to manage some 374 properties containing about 3,500 residential units and 35 commercial units.[22] From their record system, we extracted a file of 5,472 records of maintenance service requests initiated during calendar 1992 and the responses to each request (see Table 10).

[21] Tenant accounts are maintained by a fiscal intermediary called "SIPO," which the HMCs are obliged to use. The HMCs provide SIPO with an account of each tenant's monthly obligations for rent and services; the tenants make their payments to SIPO, which accumulates the receipts and remits them quarterly to the HMCs along with a list of delinquent accounts. There are no effective remedies for nonpayment of these contractual charges.

[22] By August 1993, property sales, demolitions, and reallocated responsibilities had reduced the number of buildings managed by LIMIT to 356. See Table 1 for details.

Table 10
SUMMARY OF BUILDING MAINTENANCE ACTIVITY: LIMIT HMC, 1992

Code	Major Repair Group	Number of Repair Requests	Number of Repairs Completed	Average Cost (Kc) per Repair
1	Furnace, heating system	864	733	2,647
2	Space heating fixture	446	370	2,888
3	Electrical distribution	534	468	808
4	Electrical fixtures	56	40	575
5	Water distribution	358	297	930
6	Water heating fixtures	171	152	3,053
7	Bathroom water fixtures	372	260	1,567
8	Kitchen water fixtures	38	25	1,412
9	Sewage collection	566	489	1,394
10	Gas distribution	23	15	5,858
11	Cookstoves	413	347	3,736
12	Interior wall, ceilings	51	22	9,581
13	Floors, floor coverings	8	5	2,514
14	Windows, doors, skylights	103	53	596
15	Exterior walls, balconies	32	12	60,679
16	Roof, gutters, downspouts	490	221	5,285
17	Chimneys and vents	182	126	2,379
18	Laundry, drying facilities	19	11	2,017
19	Sheds, fences, grounds	11	6	1,487
20	Other unclassified	257	171	990
21	Unknown	478	296	3,234
	Total, all repair groups	5,472	4,119	2,517

SOURCE: Tabulated from property management records maintained by LIMIT HMC.

These data, prepared by LIMIT for internal administration, established to our satisfaction that LIMIT was doing its best, within the constraints of its resources, to respond to the maintenance problems of the properties it managed. Of the 5,472 service requests, about two-thirds were initiated by tenants and one-third by LIMIT staff. Twenty-three percent were classified as "emergencies" requiring prompt response to protect tenants from discomfort or danger or to forestall further damage to the property; the others were less urgent. After investigating each request, LIMIT's field staff reported that about 18 percent of the "emergencies" and 27 percent of non-emergencies did not require repair actions.

Overall, 4,119 repair actions were undertaken in response to service requests. For emergency requests, repairs were completed within 2 days for 43 percent of the cases and within 10 days for 76 percent; some difficult problems required longer to resolve, even though repairs commenced promptly. For normal requests, repairs were completed within 2 days for 27 percent of the cases and within 10 days for 53 percent.

The most common problems were failures of building services--heat, electricity, water, sanitary drains--and leaky roofs. Nearly a fourth of all service requests pertained to space-heating systems and 17 percent pertained to various problems with water pipes and plumbing fixtures; drain stoppages and electrical failures each accounted for 10 percent and roof leaks accounted for 9 percent. Nearly all repairs were done by outside firms under contract to the HMC; the invoiced cost of repairs completed during 1992 averaged Kc 2,517 per repair action and Kc 3,744 per dwelling unit.

Estimating Inventory-Wide Maintenance Costs

Taking LIMIT's experience as characteristic of competent, responsive maintenance, we analyzed the relationship between maintenance costs and building characteristics and used the results to estimate average annual repair costs for each building in the city-owned inventory, assuming that LIMIT's policies were generally applied. The results are shown in Table 11, where the results are stated as annual amounts (indexed to 1994 Kronar) per dwelling. It is important to understand that repair activity for individual buildings is highly irregular in time--the HMC responds when a water pipe ruptures or the tenants report a leak in the roof. The table entries should be regarded as planning estimates that are only reliable as averages for a group of buildings in a given year or for a single building over several years.

When all buildings are weighted equally, the average annual maintenance cost in 1994 Kronar is about Kc 3,487 ($125) per unit. As with the rehabilitation costs summarized in Table 7, the main factors affecting costs for individual buildings are building age and size. The most expensive to maintain are very old, very small buildings (Kc 6,194/unit). The least expensive are new buildings that are either very small or very large (less than Kc 1,900/unit). Curiously, middle-size buildings (5 to 50 units) built after 1945 all have about the same maintenance cost per unit (Kc 2,600 to 3,000); possibly this reflects intrinsic failings of the large-panel construction technology that was used for mass-produced housing in that period.

Table 11
ESTIMATED ANNUAL MAINTENANCE COST FOR CITY-OWNED RESIDENTIAL BUILDINGS GROUPED BY SIZE OF BUILDING AND YEAR BUILT: 1994

Year Built	Size of Building (Number of Units) 1-4	5-10	11-20	21-50	51-75	Total
	Estimated Annual Maintenance Cost per Unit (Kc)					
Bef. 1868	6,194	4,538	3,445	(a)	(a)	5,300
1868-1900	4,726	3,889	3,094	3,445	(a)	4,163
1901-1915	3,754	3,451	2,827	2,282	(a)	3,537
1916-1934	3,032	3,192	3,024	2,780	(a)	3,113
1935-1944	2,886	3,072	2,758	(a)	910	2,990
1945-1964	1,822	2,915	2,993	2,586	(a)	2,680
1965-1984	1,600	2,926	2,992	2,748	1,784	2,804
1985-1992	(b)	2,866	2,912	2,783	1,856	2,653
Total	3,949	3,459	2,997	2,751	1,767	3,487
	Number of Buildings with Cost Estimates					
Bef. 1868	73	71	6	0	0	150
1868-1900	156	236	21	1	0	414
1901-1915	118	190	11	1	0	320
1916-1934	113	197	35	10	0	355
1935-1944	49	101	5	0	1	156
1945-1964	44	109	41	8	0	202
1965-1984	1	34	100	42	19	196
1985-1992	2	13	23	28	6	72
Total	556	951	242	90	26	1,865

SOURCE: Annual maintenance costs for individual buildings were estimated from a statistical model fitted to repair 372 buildings maintained by LIMIT housing management company during 1992. Inventory characteristics are from PROP7SUM.DAT, a master file of residential properties owned by the City of Liberec. The master list includes 1,881 properties, but we omitted 16 properties that lacked pertinent data on building characteristics.

NOTE: The statistical model used to estimate annual maintenance cost has the following form:

Cost in 1992 (Kc/bldg) = - 3,905 + 3,098 * residential units
- 22.17 * [res units]2 + .6221 * [building age (yrs)]2
- 42.57 * commercial floorspace (m2)

All coefficients of this model have t-values greater than .95; the F-value of the model is 53 and the adjusted R2 = .37. Cost estimates for 1992 were adjusted to 1994 prices using a national index for building maintenance; the price increase from 30 June 1992 to 30 June 1994 is estimated at 19 percent. Cost per unit, reported in this table, is the predicted total cost per building divided by the number of residential units in the building.

(a) The inventory contains no buildings in this category.

(b) The model yields negative costs for both buildings in this category--no maintenance required until the buildings are older!

Management Fees

The Office of Property Management's contracts with the five HMCs for managing city-owned residential properties provide that the HMC will receive Kc 45 per month for each residential or commercial unit under management. During the first year of municipal ownership, these fees were paid by a direct appropriation from the municipal treasury. According to the accounts provided by the HMCs, the total fee for 1992 amounted to Kc 8.6 million. Subsequently, the local government decided that the management fee as well as the operating expense of city-owned buildings should be paid out of rental revenue.

Thus, the total charge against residential rental revenue for the typical building in 1994 will be maintenance expense of Kc 3,487/unit plus a management fee of Kc 540/unit, for a total of Kc 4,027/unit. Whereas the maintenance cost varies with building characteristics as explained above, the management fee is the same for all residential units.

EXPECTED FINANCIAL PERFORMANCE IN 1994: RESIDENTIAL PROPERTIES MANAGED BY LIMIT AND LEMU

The data-preparation and analysis reported in the preceding pages was designed to enable us to appraise the financial performance of individual city-owned properties, a fundamental factor in formulating a privatization policy. We planned to prepare such an appraisal for every city-owned property, but the outcome falls far short of that plan. Below, we present an analysis of financial performance for nearly all properties managed by LEMU and LIMIT, excluding the commercial units and garage spaces on these properties as sources of income or expense. In other words, we treat the residential portions as "profit centers" that can be managed separately from the commercial portions.

We did not include properties managed by the other three HMCs partly because we lacked the time and partly because we lacked essential data. We have 1994 rent information for RYBAR and DOMINA, but none for STAVOS--not even the 1993 Evidencni List that enabled us to estimate 1994 rent for LEMU. Given more resources, we could in principle extend our analysis of financial performance to include properties managed by RYBAR and DOMINA.[23]

We did not include commercial units and their revenues because we find the data incomprehensible. If the Office of Property Management could provide us with an **audited** machine-readable inventory of commercial units, floorspace, and 1994 rent for all HMCs, it would be possible (and desirable) to revise portions of the analysis to include this information.[24]

[23] Our experience with 1994 Evidencni Lists and rent records for LEMU and LIMIT indicate that each file requires about two weeks of preparation before it is usable for analysis. These files, prepared by the HMCs, contain many misidentified records, many incomplete records, and many data errors. For the most part, the HMCs have used their computers merely as typewriters that store the typewritten data in machine-readable form; they have not programmed data-entry aids (error checks) that would prevent many of the mistakes we encountered, and they have not audited the completed files.

[24] See Note 20 for a critique of SEZNAM1.TXT, the Office of Property Management's only complete account of commercial units managed by LEMU in 1994. An earlier file prepared by the Office of Property Management (NEBYTY2.DAT) is obsolete because most rents have since been renegotiated and because the file was apparently never completed; however, its individual records are internally consistent--which is not true of SEZNAM1.TXT.

The Performance Ratio

Our measure of financial performance for a city-owned residential property is the ratio of expected annual costs to expected annual revenue.[25] The expected annual costs consist of expected maintenance costs, estimated from the study of LIMIT's maintenance experience in 1992 (see above, Table 11 and associated text); and management fees calculated at the rate of Kc 540 per residential unit. The expected annual revenue consists of expected residential rents, either reported (for LIMIT) or estimated on the basis of dwelling characteristics (for LEMU); these rents are summarized in Tables 9A and 9B above.

The expected expenses do not include payments by the HMC for communal services (which they should in principle recover from the tenants) nor do they include the deficits incurred when the tenants do not meet their obligations for rent or communal services. The residential rents do not include payments for communal services, and the expected values make no allowance for non-payment of rent. Thus, the ratio is an "optimistic" performance measure, assuming no problems with tenant payments.[26]

The method we use for estimating the cost of building maintenance loads all of the cost on the residential units even when a building has some commercial space. This is rarely an important error, because few buildings have more than one or two commercial units and these are usually smaller than residential units. Although the HMCs collect a management fee for commercial as well as residential units, we counted only the fees for residential units in our financial performance ratio.

As explained earlier, our measure of financial performance excludes revenue from commercial units and garages even though we would prefer to include this information.

Factors Affecting Performance

Table 12 summarizes the expected financial performance in 1994 of residential properties managed by LEMU and LIMIT. The most profitable properties are those with the lowest ratio of cost to revenue; a ratio less than unity indicates that the property costs less to operate than it returns in revenue. Our estimates indicate that about 42 percent of LEMU's properties and 54 percent of LIMIT's properties will be profitable in 1994. Twelve of LEMU's properties and two of LIMIT's properties will do very well, with performance ratios under .40 (cost is less than 40 percent of revenue).

Properties whose performance ratios are greater than unity are unprofitable. Thirteen percent of the properties managed LEMU and 8 percent of the properties managed by LIMIT will cost more than twice as much to operate as they returned in revenue (performance ratio greater than 2). Obviously such properties are a drain on the city's fiscal resources.

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[25] The same information could be conveyed by the inverse of this ratio, but there are technical statistical reasons for preferring revenue rather than cost as the denominator.

[26] Although we know that delinquent residential accounts for 1992 totaled Kc 3.1 million (see Table 8A), we have no way to estimate the delinquencies by property. General experience with rental real estate indicates that different kinds of properties acquire different types of tenants, resulting in clear differences in rent delinquency.

Table 12
EXPECTED FINANCIAL PERFORMANCE IN 1994: RESIDENTIAL PROPERTIES MANAGED BY LEMU AND LIMIT

Ratio of Total Cost to Revenue	Number of Properties: LEMU	Number of Properties: LIMIT	Number of Properties: Both HMCs	Cumulative Percentage: LEMU	Cumulative Percentage: LIMIT	Cumulative Percentage: Both HMCs
			Profitable			
Under .20	4	2	6	1.2	0.6	0.9
.21-.40	8	—	8	3.6	—	2.0
.41-.60	19	14	33	9.3	4.6	6.9
.61-.80	49	95	144	23.9	31.6	27.8
.81-1.00	61	77	138	42.1	53.6	48.0
			Unprofitable			
1.01-1.20	59	45	104	59.7	66.4	63.1
1.21-1.40	32	36	68	69.3	76.6	73.0
1.41-1.60	28	19	47	77.6	82.1	79.9
1.61-1.80	17	18	35	82.7	87.2	85.0
1.81-2.00	16	16	32	87.5	91.7	89.7
2.01-3.00	30	23	53	96.4	98.3	97.4
3.01-4.00	7	3	10	98.5	99.2	98.8
4.01-8.00	4	3	7	99.7	100.0	99.9
Over 8.00	1	—	1	100.0	—	100.0
Total	335	351	686	100.0	100.0	100.0

SOURCE: Tabulated from PERFORM.DAT, an analytical file prepared from records for individual properties managed by LEMU and LIMIT housing management companies.

NOTE: Financial performance for each property is measured by the ratio of total residential cost to revenue from residential rent. Total cost is the sum of expected maintenance cost for 1994 and the scheduled management fee for the property. The 1994 revenue from residential rent reflects the application of current rent regulations to the structural characteristics and equipment of each dwelling on the property. Many properties managed by LEMU and a few properties managed by LIMIT also contain ground-floor commercial units that yield substantial rents. This table deals only with the residential part of each property, because we do not have a reliable account of commercial rents for 1994. This table also excludes 7 properties managed by LEMU and [illegible] properties managed by LIMIT for which we lack adequate data.

Tables 13, 14, and 15 explore the building characteristics that are systematically related to financial performance. Table 13 shows that residential quality as measured by official standards (Categories I through IV) is a powerful indicator of financial performance: The best buildings have the lowest performance ratios and the worst buildings have the highest ratios. The principal reason for this outcome is that the denominator of the performance ratio is strongly affected by the official quality classification, whereas the numerator is not. The state sets the maximum rent for apartments of Category I at Kc 6/m2, dropping to Kc 2.5/m2 for apartments of Category IV. In an unregulated market, it is likely that freely negotiated rents would vary with objective measures of quality, but not necessarily by the amounts postulated in Decree 176.

Table 14 shows that building age--or at least building vintage, the historical period of construction--is a less reliable guide to profitability. For buildings constructed before 1945, each vintage has a wide range of performance ratios, though the general trend over time is toward smaller ratios (greater profitability) and a narrower range. After 1944, most buildings are profitable, and the trend over time is unclear. We know from our analysis of LIMIT's repair experience that older buildings typically have much higher annual maintenance costs than new ones, so the numerators of the performance ratios should decrease over time. However, there is no consistent relationship between building age and official quality, so the denominator behaves erratically over time.

Table 15 shows that building size is associated with financial performance. Small buildings report a wide range of performance ratios, from extremely profitable to extremely unprofitable. For larger buildings, the range of values decreases and the median value rises. We expect all fourteen buildings with more than 50 residential units to do well in 1994. This pattern mostly reflects systematic variation in the numerator; because of economies of scale, maintenance costs per unit drop with building size whereas revenue per unit does not. Moreover, the larger buildings tend to be newer, another reason for low maintenance costs.

Asset Management Using Property-Level Accounts

If the HMCs would compile annual income and expense statements for individual properties, it would become possible for the Office of Property Management to examine the financial performance of individual buildings using actual data instead of estimates. The Office could then systematically investigate properties that perform badly and make individual decisions about their treatment, for example:

- Would it pay to remedy various problems with building characteristics or condition or tenant behavior that contribute to high performance ratios?
- Should the city rehabilitate or redevelop an intrinsically unprofitable property for continued but profitable operation in either residential or nonresidential uses?
- Should the city sell the property to its occupants or to others who would place a different value on it because of different calculations of costs and benefits? (This point may be obscure to the reader; it will be discussed in the next section.)

Table 13
EXPECTED FINANCIAL PERFORMANCE IN 1994 BY RESIDENTIAL QUALITY: RESIDENTIAL PROPERTIES MANAGED BY LEMU AND LIMIT

	(Best)		Average Residential Quality				(Worst)	
Ratio of Total Cost to Revenue	1.00	1.01 -1.50	1.51 -2.00	2.01 -2.50	2.51 -3.00	3.01 -3.5	3.51 -4.00	Total
				Profitable				
Under .20	1	1	4	—	—	—	—	6
.21-.40	—	4	4	—	—	—	—	8
.41-.60	12	9	10	2	—	—	—	33
.61-.80	74	18	43	7	1	—	1	144
.81-1.00	43	10	66	9	9	—	1	138
				Unprofitable				
1.01-1.20	4	8	54	21	12	4	1	104
1.21-1.40	2	1	28	21	13	3	—	68
1.41-1.60	2	1	17	8	12	7	—	47
1.61-1.80	2	—	9	10	6	5	3	35
1.81-2.00	1	2	4	6	11	4	4	32
2.01-3.00	1	1	7	6	9	18	11	53
3.01-4.00	—	—	—	—	4	2	4	10
4.01-8.00	—	—	1	—	—	2	4	7
Over 8.00	—	—	—	—	—	—	1	1
Total	142	55	247	90	77	45	30	686

SOURCE: Tabulated from PERFORM.DAT, an analytical file prepared from records for individual properties managed by LEMU and LIMIT housing management companies.

NOTE: Financial performance for each property is measured by the ratio of total residential cost to revenue from residential rent. Total cost is the sum of expected maintenance cost for 1994 and the scheduled management fee for the property. The 1994 revenue from residential rent reflects the application of current rent regulations to the structural characteristics and equipment of each dwelling on the property. Average residential quality is based on quality standards set by the national government, based primarily on the dwelling's heating system and kitchen and bathroom facilities. This table excludes 7 properties managed by LEMU and 5 properties managed by LIMIT for which we lack adequate data.

Table 14

EXPECTED FINANCIAL PERFORMANCE IN 1994 BY AGE OF BUILDING: RESIDENTIAL PROPERTIES MANAGED BY LEMU AND LIMIT

Ratio of Total Cost to Revenue	Year Built: Before 1868	1868 -1900	1901 -1915	1916 -1934	1935 -1944	1945 -1964	1965 -1984	1985 -1992	Total
Profitable									
Under .20	—	1	3	—	—	—	—	2	6
.21-.40	—	3	3	1	1	—	—	—	8
.41-.60	1	5	8	12	4	1	2	—	33
.61-.80	2	23	14	19	12	14	59	1	144
.81-1.00	6	24	15	22	7	29	34	1	138
Unprofitable									
1.01-1.20	18	22	15	27	2	15	2	3	104
1.21-1.40	17	25	10	13	—	2	—	1	68
1.41-1.60	10	25	7	4	—	1	—	—	47
1.61-1.80	13	13	4	2	1	1	—	1	35
1.81-2.00	15	8	4	3	—	1	—	1	32
2.01-3.00	15	28	5	4	—	—	—	1	53
3.01-4.00	4	5	—	1	—	—	—	—	10
4.01-8.00	2	3	2	—	—	—	—	—	7
Over 8.00	1	—	—	—	—	—	—	—	1
Total	104	185	90	108	27	64	97	11	686

SOURCE: Tabulated from PERFORM.DAT, an analytical file prepared from records for individual properties managed by LEMU and LIMIT housing management companies.

NOTE: Financial performance for each property is measured by the ratio of total residential cost to revenue from residential rent. Total cost is the sum of expected maintenance cost for 1994 and the scheduled management fee for the property. The 1994 revenue from residential rent reflects the application of current rent regulations to the structural characteristics and equipment of each dwelling on the property. This table excludes 7 properties managed by LEMU and 5 properties managed by LIMIT for which we lack adequate data.

Table 15
EXPECTED FINANCIAL PERFORMANCE IN 1994 BY SIZE OF BUILDING: RESIDENTIAL PROPERTIES MANAGED BY LEMU AND LIMIT

Ratio of Total Cost to Revenue	Number of Residential Units per Building: 1-4	5-10	11-20	21-50	51-75	Total
			Profitable			
Under .20	4	1	1	—	—	6
.21-.40	2	4	1	—	1	8
.41-.60	9	18	3	1	2	33
.61-.80	29	52	47	5	11	144
.81-1.00	19	80	25	14	—	138
			Unprofitable			
1.01-1.20	22	75	6	1	—	104
1.21-1.40	26	37	3	2	—	68
1.41-1.60	22	24	1	—	—	47
1.61-1.80	16	17	2	—	—	35
1.81-2.00	16	15	1	—	—	32
2.01-3.00	25	25	2	1	—	53
3.01-4.00	8	2	—	—	—	10
4.01-8.00	6	1	—	—	—	7
Over 8.00	—	1	—	—	—	1
Total	204	352	92	24	14	686

SOURCE: Tabulated from PERFORM.DAT, an analytical file prepared from records for individual properties managed by LEMU and LIMIT housing management companies.

NOTE: Financial performance for each property is measured by the ratio of total residential cost to revenue from residential rent. Total cost is the sum of expected maintenance cost for 1994 and the scheduled management fee for the property. The 1994 revenue fromresidential rent reflects the application of current rent regulations to the structural characteristics and equipment of each dwelling on the property. This table excludes 7 properties managed by LEMU and 5 properties managed by LIMIT for which we lack adequate data.

Lacking performance data for individual properties, the city now makes most of its decisions about asset management for the inventory as a whole. For example, the Office of Property Management has instructed the HMCs to limit maintenance activity to the amount that can be funded from rental revenue. Under this arrangement, the "good" buildings subsidize the "bad" buildings while both deteriorate because of undermaintenance. A policy that distinguishes individual buildings could be beneficial both to the city Treasury and to the tenants of city-owned housing because it would focus attention on the problem properties and free the earnings of the "good" buildings for their own maintenance.

V. PRIVATIZATION STRATEGY

The Czech Republic has approached housing privatization in a more leisurely way than most states of Eastern Europe and the former Soviet Union. More than three years have passed since the reform government took power; the new government was quick to transfer responsibility for the management and disposition of state-owned housing to municipal governments but slow to pass the legislation needed for mass privatization. In March 1994, the parliament of the Czech Republic finally approved a modern condominium law that enables local governments to sell large multiple dwellings to their occupants and enables the occupants to buy individual apartments and participate in building management.

The City of Liberec moved more promptly to establish a housing privatization program. In January 1992, the Chamber of Representatives passed an ordinance entitled *Procedures for Transfer of Real Property Owned by the City of Liberec*[27] that provided a complex procedure for the disposition of whole buildings to their occupants in joint ownership; or, under certain conditions, to other buyers. If sold to the tenants, prices are fixed pursuant to two national decrees of the Ministry of Finance;[28] if sold to other buyers, prices are not regulated by the state. However, the requirement to sell only whole buildings and the strong preference given to existing tenants greatly limit the market. According to the Deputy Mayor, the city sells between 10 and 20 small buildings monthly; each transaction is negotiated by the Department of Property and approved by the City Council. At a pace of 20 buildings per month, it will take 8 years for the city to divest itself of residential property.

Our analysis of the financial performance of the city's residential properties indicates that about half of the properties will be unprofitable at 1994 rents and maintenance costs. Although it is true that the unprofitable buildings can be subsidized from the earnings of the profitable buildings, it is equally true that the profitable buildings--or the city treasury--would benefit from the revenue that is now diverted to maintain the unprofitable buildings. Our sample study of building condition, reported in Sec. II, indicates that current maintenance practices, which are limited by available revenue, are insufficient to keep residential properties in stable condition; both profitable and unprofitable buildings are deteriorating rapidly.

In our judgment, the challenge to the city is to create institutional arrangements that result in a higher level of maintenance for residential property than is now usual for city-owned properties. This could be done under city ownership, but only with the aid of subsidies from the city treasury--because the city does not have the authority to set rents above the maxima determined by decree of the Czech Ministry of Finance. However, there is reason to think that it could also be done by transferring title of residential property to private owners. In this section, we will explore how this might be done on a scale that would divest the city of all or nearly all of its residential property.

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[27] This law was amended on 23 February 1993 and again late in 1993 (date unknown, effective 1 January 1994). It remains complex and cumbersome.

[28] Decree No. 393 of the Ministry of Finance, *On the prices of buildings, land, permanent green areas, fees for establishing the right to personal use of land and compensation for the temporary use of land*, 5 September 1991; as amended by Directive 611, 7 December 1993. Both the Deputy Mayor of Liberec and a staff member of the Czech Ministry of Economy have assured me that the price regulations promulgated by these decrees are advisory only. I do not understand the basis for this interpretation, which is contrary to my reading of the translated documents.

THE PROBLEM OF RENT REGULATION

The fundamental fiscal problem for city-owned residential properties is that rents are regulated by a third party (the Czech Ministry of Finance) but costs are not. Thus, the city cannot control the balance between revenue and cost except by adjusting the amount of maintenance work done on the properties. When the amount of maintenance is reduced below a certain level, the consequence is deterioration of the property, a form of capital consumption. The city does not escape the cost of maintenance, it merely postpones payment until such time as a property becomes uninhabitable and must be either rehabilitated or demolished. This strategy has been followed both by the state housing management company (BPML) and its successors, the private HMCs acting under instructions from the city government.

In the meantime, the occupants suffer the disadvantages of living in an undermaintained building, subject to frequent emergencies as aging building systems fail, to chronic malfunction of things needing non-emergency repairs, and to the simple ugliness of peeling paint and worn flooring. On the other hand, they benefit from rent regulation, paying less than the full cost of the housing services they consume. Occupants doubtless differ in their view of this arrangement--some place priority on low rents, others would prefer to pay more for better maintenance. To date, they haven't been allowed to choose, except that it is a common practice for the occupant of a city-owned dwelling to undertake permanent improvements within his dwelling at his own expense. For obvious reasons, a tenant is reluctant to pay from his own pocket for general improvements to the building such as a new roof or a new heating system.

The institutional obstacles that prevent the city from behaving as a responsible landlord would also apply to private landlords. Private investors may be interested in purchasing some city-owned buildings with a view to converting them to unregulated commercial uses or with the expectation that the national program of rent regulation will end within the foreseeable future, but the immediate returns from operating rental property are negligible.

Within the framework of national laws and decrees, the only escape from this impasse is to transfer title of city-owned residential property to its occupants. When the occupants become owners rather than tenants, they can scale the level of maintenance to their own preferences--but must pay the full costs of their choices. If they are able and willing to pay for a high level of maintenance, both the potential market value of their property and their current enjoyment of it will rise. If they are unable or unwilling to pay for adequate maintenance, they must suffer the consequences; but everyone suffers the adverse consequences of undermaintenance under city ownership and management.

Here too the city's freedom of action is in principle limited by national decrees governing transfer prices. In a country in which real estate markets have been moribund for 50 years, it is difficult to estimate the long-run market value of residential property to owner-occupants, and even more difficult to anticipate how much they could be induced to pay given their uncertainty about the future. However, it is not at all difficult to show that the city's fiscal circumstances would benefit from giving away residential property that otherwise must be perpetually subsidized.

NATIONAL PRICING POLICY

Our inquiries about national regulation of privatization "selling prices" led us to two decrees of the Ministry of Finance, No. 393 of 5 September 1991 and No. 611 of 7 December 1992. Both deal with the prices of buildings and land transferred from public to private ownership. Decree No. 393 focuses on single-family houses, especially farmhouses, dealing very briefly with "other residential houses" in Sec. 1, paragraph 3. Decree No. 611 amends this brief paragraph to deal more clearly with urban dwellings, including apartment houses. It inserts paragraph 3a, which reads:

(1) The price of a dwelling unit, including its fixtures and equipment and including its share of the common spaces, equipment, and fixtures of the residential building, will be the product of the floor area of the dwelling unit and the price per m2 according to the dwelling's quality category.

(2) The price per m2 of floorspace is as follows:

Category of Dwelling	*Price Range (Kcs/m2)*
I	*4,400 to 6,000*
II	*3,200 to 4,400*
III	*2,200 to 3,200*
IV	*1,300 to 2,200*

(3) Within these limits, other amenities of the dwelling, the building, and the neighborhood will be taken into account. These include location within the building, balcony, terrace, ratio of living space to other space in the dwelling unit; equipment of the buildings such as laundry, cellar, elevator, etc.; and the location of the building in the community (garden area, city center, dust level).

(4) When the unit is sold to the existing tenant, improvements done and paid for by the tenant are not considered when establishing the price according to subparagraph (2).

(5) With apartments, the building condition is taken into account. The price established according to subparagraphs (2) and (3) is reduced typically by one percent for each year of building age. The maximum reduction is 80 percent.

(6) Unless the price is established by expert evaluation according to subparagraphs (2) through (5), the following rule applies: Established price is the price based on the upper limit for the relevant category of dwelling , reduced by one percent for each year of building age, to a maximum reduction of 80 percent. Dwellings are classified according to the provisions of subparagraph (4) [that is, tenant's improvements are not counted].

(7) The established price of commercial space in residential buildings is negotiated. However, the minimum shall be Kc 2,000 per m2 of commercial floorspace.

As we understand Decree 611, it limits the authority of the City of Liberec to set selling prices for residential buildings sold to their tenants, but not for buildings sold otherwise. The maximum price is the upper limit for the applicable quality category (e.g., Kc 6,000/m2 for category I); the minimum price is the lower limit for that category (e.g., Kc 4,400/m2 for category I), reduced in proportion to building age (up to 80 percent reduction, or to Kc 880/m2 for a dwelling of category I in a building aged 80 years or more).

These limitations apply to the price of the dwelling and common parts of the residential building. Separate provisions of the decree pertain to the privatization of the land on which the building is located. Section 8 of Decree No. 393 sets land prices throughout the Czech Republic, varying for cities by number of inhabitants; however, *If the borough has a price map for the separate localities in its cadastral territory that has been approved by the Ministry of Finance of the Czech Republic, the prices listed in the map shall apply...[**Sec. 8 Lands**, paragraph 15(1)].*

MUNICIPAL PRICING POLICY

Although we have endeavored on more than one occasion to clarify the pricing policy adopted by the City of Liberec in its ordinance of January 1992 (as amended in 1993), we are still unsure that we understand the rules governing the sale of a residential building to its tenants. The ordinance presently in effect provides as follows:

§8. Price Determination

*The method of transfer according to **§3. Sale to Tenants and Co-owners of the Building**:*

(1) The price will be determined before the announcement of the City's intention to sell or complete the sale of the building. The price will be determined by the Municipal Office after consulting with the [Commission for the Transfer of Property]. If the opinions of the Municipal Office and the TP Commission differ, the City Council will decide the price. The determined price may not be lower than the sum of the fees paid by the Municipal Office and other expenses related to the property sale. Upon a sale according to §3, the property sale price will be increased by the cost of any repairs done at the City's expense after 1 January 1992.

*(2) Buildings of categories C1 and C2 [residential buildings outside designated zones, with or without nonresidential space] and apartment houses with at least 8 residential units of category B1 [residential buildings within the designated zones] without nonresidential space will be sold for an estimated price **according to the price regulations valid on the date of sale**. This price will be reduced as follows:*

Number of Dwelling Units	Maximum Reduction (%)	
	Cat. C1 or C2	Cat. B1
1-2	0	--
3-4	30	--
5-7	40	--
8-19	40	40
20 or more	60	60

The price of nonresidential space used for commercial purposes in buildings of categories C1 and C2 will be determined without the reductions indicated above. The starting price will be the estimated price and may be increased.

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For the sale of buildings of categories C1 and C2 with nonresidential space, the given reduction does not apply to that portion of the estimated price corresponding to the proportion of nonresidential floorspace to total floorspace of the building.[29]

(4) Upon sale of buildings of category B1 to which the regulation in paragraph (3) does not apply,[30] *or upon sale of buildings of categories B2 [nonresidential] or B3 [land, no buildings], the estimated price is to be determined* ***according to price regulations valid on the date of the transfer.*** *This is a starting price and may be increased.*

(4a) If the buyer of a building of category B1 agrees to keep at least 80 percent of its residential space in that use for five years, 30 percent of the selling price will be rebated. The rebate is payable only after the condition is fulfilled [i.e., if at the end of five years the residential space has been preserved]; the rebate may be claimed up to six months after the end of the five-year period.

The phrase "according to the price regulations valid on the date of sale" appears to refer to the regulations promulgated by the Ministry of Finance, discussed above. The effect of the Liberec ordinance is to reduce the national prices for individual apartments and shares in the common area of a residential building very dramatically for large buildings. We do not understand the reasoning behind this policy; it would seem more reasonable to reduce prices for small buildings, most of which are old and in poor condition.[31]

Section 7 of the Liberec ordinance deals with the sale of land. Paragraph (1) says:

The sale of a building always includes the entire area covered by the building [building footprint] and the land that makes up a functional whole with the building to a maximum of 800m2. Land exceeding the given area may also be sold in accordance with §7(6) [which requires approval of the Chamber of Representatives].

Nothing is said about the price of land in these transactions, but general context suggests that it is not included in the price of the building. Presumably, its price is determined by a land price-map prepared by Liberec and approved by the Ministry of Finance. We were given such a map early in 1993; it shows five roughly concentric zones with prices as follows:

[29] This paragraph seems to be merely a restatement of the rule in the preceding paragraph.

[30] The current version of the ordinance, as amended sometime during 1993, has no paragraph (3) in §8; consequently, this cross-reference is not intelligible. We are unable to find any price regulation for buildings of category B1 that (a) contain fewer than eight dwellings or (b) contain some nonresidential space, when such buildings are offered to the occupants. The missing paragraph (3) may have dealt with such cases.

[31] According to the Deputy Mayor, prices for apartments in large buildings were reduced to encourage applications for their privatization; however, even at the lower prices no such applications have been filed. We judge that the obstacle to privatization of these buildings has not been the dwelling prices but the lack of an appropriate method for transferring ownership of a large building to its tenants. The national condominium law, passed in March 1994 but not yet implemented in Liberec, provides a suitable method for such transfers.

Zone	Price (Kc/m2)
I	800
II	600
III	400
IV	150
V	50

The current privatization ordinance mentions "designated city zones" but does not refer explicitly to this map or to Zones I through V. Instead, its categories of municipal property suggest a Zone B (with property types B1, B2, B3) and Zone C (with property types C1, C2, C3). A communication from Deputy Mayor Hron suggests but does not say clearly that the approved price for land in "Zone B" is Kc 400/m2 and the approved price for land in "Zone C" is Kc 200/m2. We guess that Zone B is central and Zone C is peripheral, but have no idea of the boundary between them.

NEEDED: A NEW PRICING POLICY

The discussion above may convey some notion of the complexity and possibly even incoherence of the pricing policy set forth in Liberec's current privatization ordinance. We think it needs drastic overhaul. A communication to us from Deputy Mayor Hron, dated 3 May 1994, suggests a reasonable alternative:

2.2. Price of residential units and terms of payment

The price of a residential unit is set as a sum of three items:

- *Annual net rental (without services) according to Decree No. 176/93, multiplied by 20. (For a common flat of category I, with kitchen plus three rooms, the result would be about Kc 100,000.)*
- *Price of built-up land in Zone C at Kc 200/m2 and in Zone B at 400 Kc/m2, multiplied by the share of the site allocated to the dwelling unit that is sold.*
- *Costs of implementation of sale corresponding to the tax on the transfer of immovables.*

The price so established will be paid in the form of monthly installments for a period of 20 years. The first payment will be increased by the third item of the price [the transfer fee].....If the buyer chooses to pay in full at the time of sale, the price will be discounted by 20 percent of the first item [payment for the dwelling].

Mr. Hron comments that "Deriving the price of a residential unit from its rent expresses in the best and simplest way the price as a function of quality and size of unit. Monthly installments at a level of rental will be acceptable for almost all tenants, and will enable the new owners to pay for necessary maintenance and repair; thus the town is contributing to the maintenance of the houses sold."

We agree, except that Mr. Hron's proposal takes no account of the condition of the building. To be sure, the shelter rent under Decree No. 176 is based on the quality and size of a dwelling, but the "quality" measure concerns the dwelling's kitchen and bathroom equipment and how it is heated, not whether the roof leaks or the heating system is unreliable. Furthermore, unless some adjustment is made for building condition, Mr. Hron's pricing policy will yield prices that are often above those authorized by the Ministry of Finance in Decree No. 611/92.

In order to test this policy, we applied it to individual dwellings managed by LIMIT and LEMU, with the results shown in Tables 16A and 16B. The upper panel of each table shows average selling prices by size and quality of dwelling, calculated approximately according to Mr. Hron's proposal (we did not include fees). Over all sizes and qualities, the average selling price is Kc 83,000 for LIMIT and Kc 88,000 for LEMU. For the typical category I apartment mentioned by Mr. Hron (three rooms plus kitchen, 67 m2 (LIMIT) to 84 m2 (LEMU)), Mr. Hron's proposal yields selling prices of Kc 108,000 to Kc 138,000, including the price of the land.

We also estimated the selling price of each of these apartments under the provisions of the Ministry of Finance Decree 611/92, Sec. 1.3a(6). Like Mr. Hron's proposal, the decree starts with the size and quality of the dwelling (see above, p. 23-24), but also allows a reduction for the age of the building, which crudely reflects its condition. Consequently, Mr. Hron's proposal exceeds the decree's maximum for older buildings. We found that Mr. Hron's proposal exceeded that maximum in approximately 20 percent of the dwellings managed by LIMIT and 58 percent of the dwellings managed by LEMU.

We are not really sure whether Decree 611/92 was ever or is still binding on Liberec; but the point made here is important: **The value of dwelling to its owner depends not only on its size and its domestic equipment but on the condition of the building, inasmuch as the new owner will henceforth be responsible for upkeep.**

We therefore propose a modification of Mr. Hron's idea: After calculating the selling price according to his formula, we deduct the estimated cost of restoring the building to good condition--prorated among all residential and commercial units in the building. For purposes of illustration, we use estimates based on the sample study of building condition discussed in Sec. II and illustrated in Table 7, above. (For actual program purposes, we regard it as essential that each building be inspected and its rehabilitation cost be estimated by competent appraisers prior to setting the selling price of the units.)

The middle panel of Tables 16A and 16B shows the results of this modification. For LIMIT's dwellings, the overall average selling price drops from Kc 83,000 to Kc 64,000; for LEMU's dwellings, the price drops from Kc 88,000 to Kc 46,000. The larger drop for LEMU reflects the fact that its buildings are older and in worse condition. Comparing the selling prices in the middle panel with the maxima set by Decree 611/92, we find that our adjusted selling prices exceed the decree's maxima for only 44 dwellings managed by LIMIT and 30 dwellings managed by LEMU.

Table 16A
ESTIMATED SELLING PRICES FOR DWELLINGS MANAGED BY LEMU, WITH AND WITHOUT DETERIORATION ALLOWANCE

Floorspace (m2) of Dwelling	Quality Class of Dwelling				
	I	II	III	IV	All
	Average Dwelling Price without Deterioration Allowance				
Under 20	29,439	—	19,911	11,724	23,594
21- 40	51,169	40,232	31,950	21,860	38,298
41- 60	88,589	63,778	47,562	34,832	68,362
61- 80	108,916	83,200	66,413	47,379	93,153
81-100	137,549	104,318	82,606	61,752	112,970
101-120	167,624	126,490	101,393	76,457	143,268
121-140	194,941	148,920	119,203	85,691	175,149
141-160	222,612	174,798	—	—	189,350
161-200	254,062	198,269	—	—	238,121
Total	109,150	84,324	58,859	33,100	88,330
	Average Dwelling Price with Deterioration Allowance				
Under 20	16,400	—	(45,642)	(35,716)	(771)
21- 40	33,241	(4,584)	(16,012)	(28,932)	1,711
41- 60	62,863	25,163	(6,320)	(21,835)	31,157
61- 80	85,009	33,774	7,362	(12,506)	54,961
81-100	89,060	47,667	29,357	15,278	59,787
101-120	111,477	62,717	48,577	(362)	82,693
121-140	149,133	85,460	63,946	(11,245)	122,276
141-160	173,112	112,039	—	—	130,626
161-200	179,760	150,565	—	—	171,418
Total	78,769	35,804	4,209	(21,498)	46,474
	Number of Dwellings				
Under 20	25	—	1	11	37
21- 40	101	65	20	79	265
41- 60	246	301	61	70	678
61- 80	330	286	47	24	687
81-100	105	163	20	11	299
101-120	73	70	6	6	155
121-140	48	23	3	2	76
141-160	7	16	—	—	23
161-200	5	2	—	—	7
					0
Total	940	926	158	203	2,227

SOURCE: Calculated from 1994 shelter rents for individual dwellings and estimates of 1994 rehabilitation cost prepared by the author.

NOTE: Entries in the upper panel are based on dwelling unit prices calculated as follows:

Price = 240 * 1994 shelter rent (Kc/month)
+ 300 * allocated site area (m2)

Entries in the middle panel are adjusted by subtracting the estimated cost of restoring the building to good condition

Rehab cost = 1994 building rehab cost(Kc)/total residential and commercial units

See text for discussion of alternative pricing policies.

Table 16B
ESTIMATED SELLING PRICES FOR DWELLINGS MANAGED BY LIMIT, WITH AND WITHOUT DETERIORATION ALLOWANCE

Floorspace (m2) of Dwelling	Quality Class of Dwelling I	II	III	IV	All
	Average Dwelling Price without Deterioration Allowance				
Under 20	33,314	—	—	13,835	30,682
21-40	57,697	53,403	40,732	29,774	54,026
41-60	86,123	73,019	53,981	41,579	79,276
61-80	108,418	92,224	72,081	53,317	100,951
81-100	143,051	113,665	91,488	72,064	124,144
101-120	177,247	134,598	—	92,309	145,905
121-140	203,228	176,984	—	96,081	180,423
141-160	—	192,772	149,854	—	182,042
Total	87,318	84,401	59,651	42,085	82,934
	Average Dwelling Price with Deterioration Allowance				
Under 20	25,189	—	—	(23,711)	18,581
21-40	51,747	13,061	2,253	(12,925)	41,074
41-60	78,248	44,238	14,313	(4,834)	62,745
61-80	96,025	52,269	27,607	3,205	79,230
81-100	112,400	68,772	37,544	28,441	85,457
101-120	134,089	89,861	—	44,345	101,398
121-140	166,959	137,786	—	65,629	144,148
141-160	—	141,292	120,193	—	136,017
Total	77,477	49,456	17,775	(3,328)	64,113
	Number of Dwellings				
Under 20	32	—	—	5	37
21-40	562	42	31	67	702
41-60	888	372	50	66	1,376
61-80	600	211	32	36	879
81-100	81	69	12	8	170
101-120	20	27	—	6	53
121-140	4	2	—	1	7
141-160	—	3	1	—	4
Total	2,187	726	126	189	3,228

SOURCE: Calculated from 1994 shelter rents for individual dwellings prepared by LIMIT and estimates of 1994 rehabilitation cost prepared by the author.

NOTE: Entries in the upper panel are based on dwelling unit prices calculated as follows:

Price = 240 * 1994 shelter rent (Kc/month)
+ 300 * allocated site area (m2)

Entries in the middle panel are adjusted by subtracting the estimated cost of restoring the building to good condition

Rehab cost = 1994 building rehab cost(Kc)/total residential and commercial units

See text for discussion of alternative pricing policies.

FACTORS AFFECTING PRIVATIZATION PRIORITIES

Table 17 summarizes factors that should affect the city's privatization priorities as they apply to properties managed by LEMU and LIMIT.[32] The first five rows of each panel describe physical characteristics; the next five rows describe financial characteristics. Properties are classified according to the number of residential units per building, a factor which has a strong bearing on the financial performance and prospects of residential buildings--partly because it is important in its own right and partly because it is correlated with building age.

Properties Managed by LEMU

Consider the properties managed by LEMU, described in the upper panel. These are centrally located properties; 60 percent are located in Casts I and II (Stare Mesto and Nove Mesto) and the buildings average 97 years of age. They are predominantly small, averaging 7 residential units per property. Two-thirds of them contain one or more commercial units, which account for about 14 percent of the total floorspace in these properties.

LEMU manages 101 properties containing 1-4 residential units; these comprise 30 percent of all LEMU's properties, but only 12 percent of the dwellings, and 13 percent of the residential floorspace. These small properties require a great deal of management attention in proportion to the number of families they serve, and would be financial disasters for the city except for their revenue from commercial units. For the residential portion of these buildings, annual operating cost exceeds residential rent by Kc 319,000, or Kc 1,100 per dwelling. Based on our field study of rehabilitation needs, we estimate that bringing all 101 buildings up to current standards of habitability would cost Kc 23.6 million, or Kc 81,400 per dwelling. Applying the pricing policy we recommended in the previous subsection, we estimate that the buildings would sell for about Kc 4.7 million, or Kc 16,100 per dwelling, not including commercial units.[33]

LEMU manages 187 properties containing 5-10 residential units; these comprise 56 percent of all LEMU's properties, 51 percent of its dwellings, and 52 percent of the residential floorspace. The residential portions of these buildings, like those of the smaller buildings, lose money for the city--about Kc 290,000 per year; but the loss per dwelling is only Kc 240 annually for this group. The rehabilitation cost amounts to Kc 50.3 million, or 41,680 per dwelling--about half the amount we estimated for the smaller buildings discussed above. Revenue from selling these properties would amount to Kc 46.7 million or Kc 38,600 per dwelling.

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[32] We had hoped to be able to compile this information for all city-owned properties, but the task exceeded our resources, basically because so much effort is needed to reorganize and clean records prepared by the city and the HMCs. Consequently, we use these two HMCs as examples that display the probable range within which all properties fall. We can and will indicate how many properties and how many dwellings fall into each strategic grouping that we define in the following pages.

[33] Our proposed policy deducts from the base price of each dwelling its prorated share of rehabilitation costs for the building. Thus, the base price proposed by Mr. Hron, would be the sum of privatization selling price (last line of the panel) and the rehabilitation cost on the preceding line. For the 101 properties of the smallest size-class, the calculation is: Base price (1000 Kc) = 4,673 + 23,605 = 28,278.

Table 17
PRIVATIZATION FACTORS BY SIZE OF BUILDING: PROPERTIES MANAGED BY LEMU and LIMIT, 1994

Item	Number of Residential Units per Building					
	1-4	5-10	11-20	21-50	50-75	Total
	Buildings Managed by LEMU					
Number of buildings	101	187	35	10	3	336
Number of residential units	290	1,208	438	227	187	2,350
Residential floorspace (m2)	19,269	77,917	29,136	12,296	11,074	149,692
Number of commercial units	54	122	43	5	4	228
Commercial floorspace (m2)	3,920	9,892	4,956	785	1,320	20,873
Residential rent (1000 Kc/yr)	1,178	4,715	2,001	908	842	9,645
Commercial rent (1000 Kc/yr)	(a)	(a)	(a)	(a)	(a)	(a)
Operating cost (1000 Kc/yr)	1,497	5,005	1,442	755	405	9,105
Rehabilitation cost (1000 Kc)	23,605	50.349	14,515	3,358	2,899	94,727
Privat. selling price (1000 Kc)	4,673	46,662	26,020	15,153	16,370	108,878
	Buildings Managed by LIMIT					
Number of buildings	106	167	57	14	11	355
Number of residential units	344	1,044	764	459	781	3,392
Residential floorspace (m2)	20,962	58,448	42,520	21,294	34,162	177,386
Number of commercial units	10	18	7	—	—	35
Commercial floorspace (m2)	506	1,357	701	—	—	2,564
Residential rent (1000 Kc/yr)	1,256	4,056	3,339	1,663	2,710	13,024
Commercial rent (1000 Kc/yr)	(a)	(a)	(a)	(a)	(a)	(a)
Operating cost (1000 Kc/yr)	1,516	4,058	2,697	1,468	1,789	11,528
Rehabilitation cost (1000 Kc)	19,712	30,880	9,181	3,122	2,345	65,240
Privat. selling price (1000 Kc)	10,415	54,561	60,044	30,847	52,395	208,264

SOURCE: Tabulated from PERFORM.DAT, an analytical file prepared from records for individual properties managed by LEMU and LIMIT.

NOTE: LEMU manages 342 properties containing 2,350 dwellings and 254 units; LIMIT manages 356 properties containing 3,392 dwellings and 35 commercial units. A few properties and units were omitted here because of missing data.

(a) The available data for commercial rents in 1994 is unreliable.

Properties larger than 10 units typically return an operating profit from their residential rentals; for the group as a whole the 1994 profit should amount to about Kc 1,149 thousand, or about Kc 1,350 per dwelling. For these properties--especially for those with over 20 residential units--commercial rentals are relatively unimportant. Furthermore, these properties require much less rehabilitation to bring them up to current standards of habitability--about Kc 20.8 million in total, or Kc 24,400 per dwelling. Consequently, selling these properties pursuant to our proposed pricing policy would yield very substantial revenue for the city: Kc 57.5 million, or Kc 67,500 per dwelling.

The missing element of this analysis is the rental revenue and potential selling price of the 228 commercial units on LEMU's properties. In general, commercial rentals are highly profitable for the city, returning up to Kc 2,000/m2/year in rent, vs. Kc 72/m2/yr for the best residential space. Given a small effort by the Office of Property Management, the line in Table 17 for commercial rent could be (and should be) filled in. For LEMU, total revenue from 228 commercial units at least equals total revenue from 2,350 residential units. **But the inference to be drawn from this fact is not that commercial rents should be used to subsidize uneconomic residential units; rather, the residential units should be managed or sold on the basis of their own performances, separate from the performance of the commercial units on the same properties.**

Properties Managed by LIMIT

Although 42 percent of the properties managed by LIMIT are located in Cast I (Stare Mesto), its domain extends to the furthest suburbs northwest of the city and its inventory includes many modern buildings, including 11 properties with more than 50 residential units. The average property has about 9.6 residential units, and only 10 percent have any commercial units. Given the fundamentally different character of LIMIT's inventory from that of LEMU, one might expect new patterns to emerge from the second panel of Table 17. In fact, the data shown there by size of property tells much the same story as presented above for LEMU, except that LIMIT's younger buildings are in better condition.

LIMIT manages 106 properties containing 1-4 residential units; these comprise 30 percent of all LIMIT's properties, but only 10 percent of all dwellings and 12 percent of all residential floorspace. For the residential portion of the properties, annual operating cost exceeds residential rent by Kc 260,000, or Kc 756 per dwelling. To bring all these buildings up to current standards of habilitability would require an outlay of Kc 19.7 million, or Kc 57,300 per dwelling. Both operating costs and rehabilitation costs indicate that these buildings are in much better shape than the similar group of small buildings managed by LEMU; but they are nonetheless a direct financial burden to the city, a burden that is not offset by commercial revenue: These properties have only 10 commercial units. Under our proposed pricing policy, we estimate that the city could sell them for Kc 10.4 million, or Kc 30,300 per dwelling.

LIMIT manages 167 properties containing 5-10 residential units--about 47 percent of all LIMIT's properties, containing 30 percent of the dwellings and 33 percent of the residential floorspace. As a group, these properties break even; their residential rents are about equal to operating cost. Their total rehabilitation cost of Kc 30.9 million amounts to only Kc 29,600 per dwelling, as compared to Kc 41,680 per dwelling in the corresponding group of LEMU's properties. Consequently, the expected revenue from selling these properties (Kc 54.6 million) amounts to Kc 52,300 per dwelling, 35 percent more than the corresponding figure for LEMU's properties.

LIMIT's 82 larger properties stand out as good financial performers. They yield Kc 7.7 million annually in residential rent, with operating costs of about Kc 6.0 million, for a 1994 profit of about Kc 877 per dwelling. We estimate that these buildings need about Kc 14.6 million in rehabilitation work, or Kc

7,300 per dwelling. If the city disposes of them pursuant to our proposed pricing policy, they would yield revenue of Kc 143.3 million, or about Kc 71,500 per dwelling.

Privatization Priorities

Based on the evidence for properties managed by LEMU and LIMIT, discussed above, we recommend the following priorities for selling city-owned residential buildings:

First Priority: We think the city should concentrate initially on selling small properties, which require a great deal of management attention in proportion to the number of families they serve and consistently operate at a deficit that must be made up from other revenues that could be better employed. With rehabilitation costs per dwelling in the range of Kc 81,400 (LEMU) to Kc 57,300 (LIMIT), a general effort to improve these buildings to current standards of habitability would, in our judgment, require more management skill--not to mention money--than the city can muster.

In our judgment, the city would be well advised to dispose of the residential portions of these properties even if free of charge; the value of these properties is mainly due to their commercial uses, actual or potential. To make the residential units attractive to prospective purchasers, prices must be very low; our proposal to discount the basic price by the amount of rehabilitation required achieves this result, yielding average selling prices per dwelling of Kc 16,100 (LEMU) to Kc 30,000 (LIMIT).

Second Priority: Less urgently, the city should dispose of most of the properties with 5-10 residential units. These properties very nearly carry themselves, with residential rents only slightly below operating costs, so keeping them in the city inventory for a few years is not much of a burden. They need substantial rehabilitation work--Kc 41,700 per dwelling for LEMU's properties and Kc 29,600 per dwelling for LIMIT's properties--and this group contains about half the city's inventory of buildings. We think desirable improvements are more likely to be made by private owners than by the city, and the prospective revenue from selling this group of buildings is quite substantial-- Kc 38,600 per dwelling for LEMU's properties, Kc 52,300 for LIMIT's.

The main problem in disposing of these buildings will not be the prices of the dwellings but coordinating the sales of individual units and creating an effective system of property management under private ownership. These matters are discussed further in the next section; here, we note that we would expect the negotiations for most buildings of this group to be quite time-consuming; under the best of circumstances, we would expect the disposition program to require at least five years.

It has been suggested to us that the city should retain a certain number of dwellings or buildings as "social housing" for low-income families, with the expectation that such housing will continue to be subsidized by the city. We think the social housing should be drawn from this size-group of properties, either as whole buildings or as city-owned units in buildings whose other units are owned by their occupants.

Third Priority: We think that the least urgent privatization problem is the disposition of the large, mostly modern, apartment blocs in the city's inventory. With few exceptions, these properties return an annual operating profit, so they are not a financial burden to the city. Because the buildings are large and their designs are highly standardized, they are considerably easier to manage than the myriad small buildings of varying configuration, materials, and equipment. And as reflected in their low rehabilitation requirements (Kc 24,400 per dwelling for LEMU's large buildings and only Kc 7,300 per dwelling for LIMIT's), they nearly meet current habitability standards, which relieves the city of the odium of operating substandard buildings. We do think that the current net operating profit from these buildings should be used to raise the standard of current maintenance.

It seems to us that the principal reason for disposing of these buildings is the general social strategy of narrowing the scope of government and broadening the responsibility of citizens for their own livelihoods and domestic arrangements. The passage of the Czech condominium law in March 1994 makes privatization of large buildings institutionally feasible, and we think it is good social policy; but if there is any question where the city should focus its managerial resources for privatization, we judge that this sector has the lowest priority.

In the light of these considerations, we cannot understand the existing municipal pricing policy that allows up to 60 percent discounts from base prices for dwellings in large buildings (see above, p. 44). We recommend that it be repealed. Generally speaking, dwellings in Liberec's large new buildings, if sold to their occupants, should carry the highest, not the lowest selling prices.

TRANSFERRING TITLE TO PRIVATE OWNERS

In the preceding pages of this section, we have discussed the prices at which city-owned residential property should be sold to their occupants or to others, and the priorities for disposing of such property. Here, we turn to the processes by which these sales can be consummated. In this discussion, we will deal separately with each of the three priority groups described above. Whereas Table [illegible] described these groups for properties managed by LEMU and LIMIT, Table 18 describes them for the entire inventory, omitting financial data that we have estimated only for LEMU and LIMIT but adding other information that bears on title transfer.

Alternative Methods for Transferring Title

Liberec's privatization ordinance allows several methods for transferring such properties to private ownership. The first option (§3) is to offer the property to its current lessors (of both residential and commercial units) in joint ownership; if not all lessors are willing to participate in this transaction, the city may sell the property to those who are willing; the purchasers then become joint owners of the entire property and the nonpurchasers continue to occupy their flats as lessors of the new owners

If no transaction can be arranged under §3, the property can be sold to third parties who do not currently lease dwellings or commercial units on the property. Under §4, the Municipal Office[34] can solicit competitive bids for a property, offering it for sale subject to specific conditions as to property use, building repair, financial participation in other public projects, etc. The bidders must submit proposals incorporating these conditions, and the proposals as well as the bid prices are considered by a city-appointed Committee for Competitions.[35] The Committee's decisions are reviewed by the City Council and must be approved by the Chamber of Representatives.

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[34] The term "Municipal Office," which is used throughout the privatization ordinance, is unfamiliar. It seems to mean, collectively, the executive branch of the city government. Practically speaking, it would be the Office of Property Sales in the Department of Property.

[35] In the United States, this bidding procedure, sometimes used to sell development rights to public property, is called a "beauty contest" (the most beautiful proposal wins).

Table 18
SELECTED CHARACTERISTICS OF CITY-OWNED PROPERTIES BY HOUSING MANAGEMENT COMPANY: AUGUST 1993

Housing Management Company	Number of Residential Units per Property					
	1-4	5-10	11-20	21-50	50-75	Total
	Number of Properties					
LEMU	101	187	35	10	3	336
RYBAR	103	184	56	38	8	389
STAVOS	152	221	44	13	1	431
LIMIT	106	167	57	14	11	355
DOMINA	94	186	47	15	3	345
Other	1	6	3	—	—	10
Total	557	951	242	90	26	1,866
Percent	29.8	51.0	13.0	4.8	1.4	100.0
	Number of Residential Units					
LEMU	290	1,208	438	227	187	2,350
RYBAR	304	1,218	781	1,039	445	3,787
STAVOS	519	1,422	564	440	63	3,008
LIMIT	344	1,044	764	459	781	3,392
DOMINA	328	1,192	679	357	216	2,772
Other	2	36	36	—	—	74
Total	1,787	6,120	3,262	2,522	1,692	15,383
Percent	11.6	39.8	21.2	16.4	11.0	100.0
	Number of Commercial Units					
LEMU	54	122	43	5	4	228
RYBAR	1	29	9	26	49	114
STAVOS	6	33	9	1	—	49
LIMIT	10	18	7	—	—	35
DOMINA	3	53	20	2	1	79
Other	1	8	3	—	—	12
Total	75	263	91	34	54	517
Percent	14.5	50.9	17.6	6.6	10.4	100.0
	Number of Properties with Some Privatized Dwellings					
LEMU	7	28	13	1	2	51
RYBAR	2	10	4	1	—	17
STAVOS	46	80	10	—	—	136
LIMIT	11	35	2	1	3	52
DOMINA	11	19	—	1	—	31
Other	—	1	1	—	—	2
Total	77	173	30	4	5	289
Percent	26.6	59.9	10.4	1.4	1.7	100.0
	Number of Privatized Dwellings					
LEMU	10	34	20	2	2	68
RYBAR	2	12	6	1	—	21
STAVOS	73	136	13	—	—	222
LIMIT	13	58	2	1	3	77
DOMINA	13	27	—	1	—	41
Other	—	1	1	—	—	2
Total	111	268	42	5	5	431
Percent	25.8	62.2	9.7	1.2	1.2	100.0

SOURCE. Tabulated from PROP7SUM DAT, a master file of residential properties owned by the City of Liberec

Alternatively, the property can be sold at public auction (§5), with or without conditions. The City Council must approve the use of this procedure and also the conditions of sale and the minimum bid.

If the property cannot be sold by any of the preceding methods, a private sale may be negotiated (§6), normally through the intermediation of a real estate broker. The negotiated terms are reviewed by the Commission for the Transfer of Property and must be approved by the City Council.

The New Condominium Law

Passage of the national condominium law, effective in May 1994, provides a new method of transferring multiple dwellings to their lessors or to third parties. Whereas the joint purchase transactions described in §3 of Liberec's privatization ordinance results in common ownership of the whole property by the several lessors, the condominium law allows each lessor to buy his own flat, to which is attached an undivided interest in the common areas of the building. A condominium owner can mortgage, rent, or sell his flat and appurtenant interests without the consent of the other condominium owners of that property, a much more flexible arrangement than joint ownership of the entire building where all parties must agree before any can act.

Under the condominium law, the several owners form an association to manage the building and assess the owners for building maintenance and improvements. Voting power in the association is usually proportional to each member's private floorspace. Once approved by the association, assessments are legally enforceable obligations of all members.

A great advantage of the condominium law for privatizing city-owned residential property is that it is not necessary to privatize the entire property in one transaction. For example, if the city wishes to privatize a property with 20 residential units and two commercial units, it begins by preparing a foundation deed that declares the property to be a condominium consisting of these separate units (each described) plus common areas and equipment. Then, the city can offer each condominium unit for sale in a separate transaction. Different standards and procedures can be applied to the sale of the residential and commercial units. When a certain proportion of the units have been sold, the owners of all units form a condominium association for building management, as described above. The city, as continuing owner of the unsold units, is a member of this association and has the same voting rights as the other members--also the same legal obligations to pay assessments.

We believe that this is the only arrangement under which Liberec will ever be able to sell its large residential buildings, and it will sometimes be the most practical way to sell small ones.

Below, we discuss how these alternative methods might be applied to the disposition of city-owned residential properties, classified by size of building.

Transferring Properties with 1-4 Residential Units

As of August 1993, the city's inventory of residential property included 557 properties with 1-4 residential units, containing altogether 1,787 dwellings and 75 commercial units (see Table 18). Among these properties are 77 buildings in which at least one dwelling has already been privatized under national laws preceding the reform government; altogether, 111 privatized dwellings are in buildings owned and operated by the city.[34]

[34] This list does not reflect the extent of privatization in Liberec. Under the city's privatization ordinance adopted in January 1992, about 530 apartments in 220 buildings have been privatized. However, only whole buildings were

For this group of properties, we recommend that the city continue its policy of selling only entire properties in a single transaction. In our judgment, the best prospect for competent management of these elderly small buildings in which dwellings have often been improvised by subdivision of a structure designed as a single-family house is to return them to the ownership of a single party. If the several tenants of such a building can agree on a joint offer for the premises, that is an acceptable exit for the city, but not the most desirable outcome for the property.

Under single ownership, various operating policies may follow. Under Czech law, sitting tenants are protected from eviction at least until the expiration of their leases, and perhaps for longer. The new owner's aim may be to evict those tenants as soon as legally possible and convert the property entirely to his private use, as a personal residence or as commercial space. Especially if he is the proprietor of ground-floor shops with one or two residential units on the upper floors, he may be content to continue as landlord for the existing tenants even though their statutory maximum rent is barely enough to cover the marginal costs of their occupancy of otherwise unmarketable space.

In any case, we don't think the City of Liberec should add to the tenant protections already provided by national law. The immediate problem is to transfer uneconomic rental property into new ownership, allowing its use and tenants to be changed so that the property becomes self-supporting. If the city adopts our pricing proposal, these properties can be offered to their tenants at very low prices (averaging Kc 4,700 per dwelling for LEMU's properties and Kc 10,400 per dwelling for LIMIT's properties). With those prices, we think that prospective buyers will be more amenable to conditions of sale imposed by the city or to arrangements for joint ownership among purchasers.

For the 77 buildings in this group that already have one or more privatized dwellings, some form of joint ownership must be negotiated unless the owner of the privatized dwelling is prepared to buy the whole property. However, the city could legally transform the property, including the privatized unit, into a condominium and then sell the remaining units to other parties.[37]

Transferring Properties with 5-10 units

This group of 951 properties comprises about half of the city-owned inventory of residential properties and contains about 40 percent of the city-owned dwellings. These are the most diverse properties in respect to location, configuration, current use, rehabilitation needs, and current fiscal performance; few rules can apply to them all. Nearly a fourth contain one or more commercial units, and nearly a fifth contain one or more already-privatized dwellings.

We think that many of these buildings are suitable for condominium ownership, but others would be better managed by a single owner. We recommend that the city send out a team of appraisers to visit each building and recommend a strategy for its disposal. The guiding objectives should be finding a form of ownership that promises competent management and has the resources to maintain the property. Especially if the residential units are an uneconomic adjunct to a ground-floor commercial enterprise, the city should aim at selling the property to the enterprise; if it is wholly residential or has only a small commercial unit, the city should urge the tenants (including the shop-owner) to enter into an agreement

privatized under that ordinance (except in cases where at least one apartment had already been privatized), so a successful privatization transaction removed the property from the city's inventory.

[37] See *Condominium Act of the Czech Republic* (24 March 1994), §31(2) for the authority to transform an already privatized dwelling into a condominium unit.

to buy the whole building and make it a condominium. As a last resort, the city could found a condominium and sell off the individual units pursuant to the procedures of the Liberec privatization ordinance that now apply only to entire buildings.

This last possibility connects with another issue, whether the city should retain ownership of a certain number of dwellings for rental occupancy by low-income households. The Deputy Mayor has suggested that as much as ten percent of the city-owned inventory (about 1,500 dwellings) should be kept as "social housing" whose operation is subsidized by the city. This could possibly be done by earmarking certain properties as low-income housing, evicting their current tenants, and installing the eligible families there. A much less disruptive method would be for the city to identify the dwellings in which eligible families currently live and retain title to those dwellings--while selling the remaining units to their more prosperous neighbors.[38]

Transferring Properties with More than Ten Units

This group of 358 properties contains 7,476 dwellings, nearly half of all dwellings owned by the city. Most are large-panel apartment blocks built after 1945, some completed within the past decade. Most of the buildings are built to one of the several standard designs favored by the state housing construction enterprise; these designs are seldom attractive, and large-panel construction has some intrinsic jointure problems, but such buildings in the Czech Republic are better built and better maintained than we have seen elsewhere in Eastern Europe. Only 66 properties have any commercial units, and the total number of commercial units is 179. Only 39 already have any privatized dwellings and the total number of privatized dwellings is 52.

For such large properties, we think the selling procedure for whole properties specified in §3 of Liberec's privatization ordinance is unworkable. The ordinance requires all of the current tenants to agree on a joint purchase of the entire property--a plausible arrangement when there are only a handful of tenants, but out of the question when there are 20 or more. Nor do we think the alternative methods of whole-property sale specified in §4, 5, or 6 will work. These sections assume the existence of an investor who is financially able to buy the whole property and expects to operate it as a rental property. As noted earlier in this section, the rewards of rental property ownership in a nation with rent control are meager at best and uncertain. We don't think the city will find such investors.

Consequently, we advise the city to proceed without further ado to transform each such property into a condominium and offer the individual dwellings and commercial units for sale, first to the current tenants and subsequently to third parties. At the prices we propose, which take into account the actual condition of the structure rather than some crude estimate based on age, we believe that most of the dwellings will sell readily to their occupants.

When a certain number of units have been sold, the owners can be required by the foundation deed to form a condominium association for the management of the property.[39] At that point, the city

[38] Western housing sociologists generally agree that subsidized housing for low-income persons or families works best when the dwellings are intermixed with nonsubsidized housing occupied by self-supporting families. The latter set standards for housekeeping and child-management for the former.

[39] Although the Condominium Act, §11, clearly contemplates the formation of a "community of unit owners" and the appointment persons or families works best when the dwellings are intermixed with non-subsidized housing occupied of an administrator to manage the property, it does not specify when such a condominium association should be formed. The foundation deed, here called the "declaration of the owner," could specify that the

would relinquish its formal obligation to manage the building and keep it in good repair. Thereafter, the city would continue as owner of the unsold units, with voting rights proportional to its holdings. It would be necessary for the city to appoint a representative to attend association meetings and vote the city's interest in issues that arose there. The association's decisions about property management and assessments on its members are legally enforceable--on the city as well as on the other owners.

However, the city's aim should be to divest itself of ownership interests as rapidly as possible and thereby withdraw from participation in the management of these buildings. That will be a slow process, given the number of buildings and number of dwellings concerned; but by limiting the process to the larger buildings, it becomes more feasible.

Furthermore, the current national rent regulations allow the city to collect enough revenue from the dwellings it continues to own to cover the probable assessments and municipal management expenses. There is no reason to expect that transforming these buildings into condominiums will in any way add to the city's fiscal or administrative burden; and an aggressive sales policy can reduce those burdens. Finally, the revenues from privatization of this group of properties will be quite large, if we can judge by the estimates for LEMU and LIMIT. If all the dwellings in city-owned buildings larger than 10 units were sold at an average price of Kc 70,000 per unit, the total revenue would be Kc 523 million.

ADMINISTERING THE PRIVATIZATION PROGRAM

The housing privatization program recommended above entails disposition of 1,881 city-owned residential properties. The current privatization program is staffed to dispose of no more than 20 properties monthly under rather cumbersome procedures. Simplifying procedures might increase the pace somewhat, but it seems clear to us that the City of Liberec will not succeed in privatizing its housing inventory without a major change in staffing and administration of the Office of Property Sales.

We recommend the formation of three teams, one for each of the three major groups of city-owned properties. Each team should prepare a workplan pursuant to the special requirements of its agenda. Much of the work of each team will consist of negotiation, and the workload is such that negotiations must be delegated--they cannot all be done by the Director of Property Sales! Furthermore, it will not be feasible for the City Council to review each transaction in detail as they do now. The Department of Property Sales should prepare monthly summaries of transactions concerning which the Council can raise individual questions, but should normally approve without detailed examination.

association must be formed when a certain percentage of the units have been sold. We would recommend 51 percent, so that the city, as residual owner, no longer has a majority vote in the management of the building.

To provide some notion of the scale of the effort, we have prepared a tentative work schedule--a starting point for serious consideration of staffing:

Priority Group (Size of Property)	Number of Properties	Number of Residential Units	Number of Commercial Units	Monthly Workload (Properties/ Units)	Months to Completion
1-4 units	557	1,787	75	15/52	1-36
5-10 units	951	6,120	263	16/106	1-60
11-75 units	358	7,476	179	10/128 0/128	1-36 37-60
All groups	1,881*	15,383	517	41/286 16/234	1-36 37-60

* Includes 15 properties whose size is not reported.

We are not able to estimate the manpower required; that can be done only in conjunction with the preparation of a detailed workplan. Roughly speaking, we think the present staff must be multiplied by three in order to carry out the proposed privatization on a reasonable schedule. Such an expansion is fiscally feasible because the privatization program is fully capable of paying for its own administration: The revenues from the sale of the privatized units, under our proposed pricing policy, will be well over Kc 500 million. The greater difficulty is finding and hiring competent staff within the framework of general municipal personnel policies. It may be possible to persuade the Chamber of Representatives to approve a special salary scale for the privatization staff because of the temporary nature of their employment.