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Ministry of Housing and Urban Affairs



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IN DENMARK

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# Housing, Building and Urban Affairs in Denmark

Ministry of Housing and Urban Affairs, 1999



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## Contents

<b>1. Introduction .....</b>	<b>6</b>
1.1 A profile of Denmark. ....	6
<b>2. The building and housing sector .....</b>	<b>8</b>
2.1 The building stock .....	8
2.2 Housing situation .....	8
2.3 Owner-occupied dwellings .....	10
2.4 Rented dwellings and co-operative dwellings .....	10
2.4.1 Private rented dwellings .....	11
2.4.2 Public housing .....	11
2.4.3 Co-operative dwellings .....	13
2.5 The building and construction sector .....	14
2.6 Building activity .....	15
2.6.1 Housing construction .....	15
2.6.2 Acquisition costs for subsidised housing construction	17
2.7 Urban renewal activity and refurbishment costs .....	17
2.8 Building exports in 1997 .....	18
<b>3. Housing economy .....</b>	<b>20</b>
3.1 Financing of real property .....	20
3.1.1 Financing and taxation of owner-occupied dwellings	21
3.2 Government subsidies for housing construction and urban renewal .....	23
3.2.1 Financing of new public housing and co-operative dwellings .....	23
3.2.2 Government subsidies for urban renewal .....	26
3.3 Household expenditure on use of the home .....	30
3.4 Rent 1995 .....	32
3.5 Rent legislation .....	33
3.5.1 The Rent Act .....	34
3.5.2 The Rent Control Act .....	34
3.5.3 The Act on Public Housing Rent .....	36
3.6 Individual housing benefits .....	36
3.7 Public spending on housing in 1998 .....	40



<b>4. Urban affairs and housing policy initiatives .....</b>	<b>41</b>
4.1 Urban affairs policy and the Ministry's five outline issues .....	41
4.1.1 Formulating an urban policy.....	41
4.2 Community welfare initiatives .....	43
4.2.1 The Urban Affairs Committee .....	44
4.2.2 Neighbourhood gentrification .....	44
4.2.3 Community welfare programmes in public housing estates .....	45
4.3 Building structures (ecology, quality, architectural design) .....	46
4.3.1 Urban Ecology – Buildings and Housing .....	46
4.3.2 Follow-up on the Urban Ecology Action Plan .....	47
4.3.3 Architecture – housing, building and urban planning .....	49
4.3.4 Follow-up on the Architectural Policy Action Plan .....	49
4.3.5 Building legislation .....	50
4.4 Micro-economics initiatives .....	53
4.4.1 Building Policy Forum .....	53
4.4.2 Building Policy Report '97 .....	54
4.4.3 Building Policy Action Plan '98 .....	54
4.4.4 Current projects .....	55
4.5 Information Technology initiatives .....	56
4.5.1 The coordination of information.....	57
4.6 International initiatives .....	61
4.6.1 International work and projects .....	61
4.6.2 The Construction Products Directive .....	62
<b>5. Organisation chart .....</b>	<b>65</b>
<b>6. Building and Housing Statistics .....</b>	<b>66</b>



# 1. Introduction

## 1.1 A profile of Denmark

Denmark is an island kingdom. The country comprises the peninsula of Jutland, which borders on Germany in the south, and approx. 500 islands, 88 of which are inhabited, the two largest being Zealand and Funen. The Kingdom of Denmark also includes the partly independent overseas territories of Greenland (the world's largest island) and the Faroe Islands, and it has a portion of the continental shelf in the North Sea.

Denmark proper is small, with a land area of approximately 43,000 square kilometres. The landscape is flat: the highest point is no more than 173 metres.

The population of Denmark proper is approximately 5.2 million. About 1.4 million people live in the capital Copenhagen, and its suburbs, and another 0.6 million people live in the three other major cities - Odense in Funen and Århus and Aalborg in Jutland.

Denmark is divided into 275 municipalities and 14 counties.

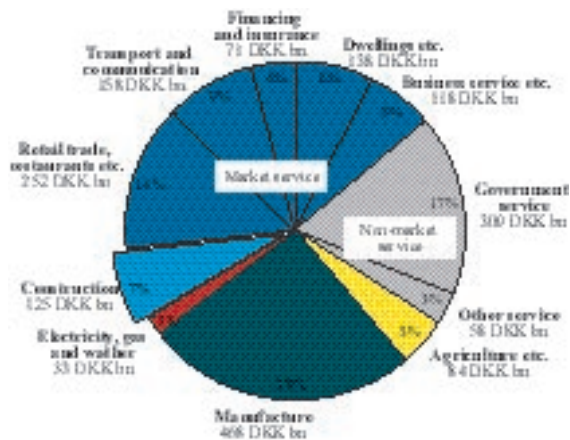
The unicameral parliament, the Folketing, has 179 members including two elected in Greenland and two in the Faroe Islands. The government is a minority coalition of two parties (the Social Democrats and the Social Liberals).

Danes have one of the highest standards of living in the world, and social welfare is given high priority. Income and wealth within Denmark are quite evenly distributed. Normally, both husband and wife work full time. With a gross national product of approx. DKK 1,170 billion in 1998, equivalent to approx. DKK 225,000 per capita, the Danish population is one of the most affluent in the world.

In 1998 the total labour force was about 2.9 million, or approximately 55 percent of the total population. The unemployment rate for 1998 was 6,3 percent, which is the lowest level in twenties years. In 1998 about 35 percent was employed within public services, about 19 percent in manufacturing, about 17 percent in trade, hotel and restaurant businesses, about 11 percent in financial and business services, about 7 percent in transport, post and telecommunication, about 4 percent in agriculture and about 7 percent in construction.

The Danish economy is based on private ownership, except for public utilities. In part because of its extensive social welfare system, Denmark has a relatively large public sector.

*Figure 1. Components of the Danish amount of production in 1997 - Total production 1,814 DKK bn.*



Since 1985 Denmark has continued to reduce the rate of inflation from approximately 4 percent in 1988 to 1.8 percent in 1998. The interest rate has decreased to a new low level of about 6 percent per anno for a 30 year bond at the end of 1998.





## 2. The building and housing sector

### 2.1 The building stock

The total building stock in Denmark comprises well over 2.4 million buildings distributed over an area of 637 million m<sup>2</sup>. 1.4 million of these are residential buildings and cover more than half of the total area of the building stock. 733,000 buildings, with a total floorage of 213 million m<sup>2</sup>, are commercial properties. Agricultural buildings account for more than half of this area.

### 2.2 Housing situation

Housing standards in Denmark are high. This can be seen by the fact that:

- There are *many* dwellings. The 2.5 millions dwellings for a population of 5.2 millions results in an average of 2.1 persons in each dwelling.
- The dwellings are *large*, with an average size of 108 m<sup>2</sup> or 51 m<sup>2</sup> per occupant. This is one of the highest average m<sup>2</sup> per occupant in the EU.
- The dwellings are of *high quality*. For example, 98% of all dwellings have their own toilet, 92% have their own bathroom and 98% have central heating.
- Residential buildings are *highly varied* with regard to type of ownership, size, fittings and price. Almost all population and age groups thus have an opportunity of finding a dwelling that meet their requirements.
- The supply of dwellings is relatively *new*. Nearly half of all dwellings were built after 1960. Only about a third were built before the Second World War.

The high housing standards reflect three basic circumstances:

- The population has traditionally given high priority to housing; housing expenditure currently comprises approximately a quarter of the average consumption.

- Because of the high demands the Danish building sector has developed numerous strengths.
- The housing market is subject to a high degree of public regulations, the goal of which is to ensure high quality housing for the entire population.

*Table 2.1 Housing Stock 1998 - Key figures*

	No. in 1,000	%
Dwellings total	2,461	100.0
<u>Type of building:</u>		
Farm houses	140	5.7
One-family (detached)	999	40.6
One-family (un- or semidetached)	308	12.5
Multi-family	959	39.0
Other	55	2.2
<u>Period of construction:</u>		
Pre- 1900	258	10.5
1900-1939	640	26.0
1940-1959	384	15.6
1960-1979	826	33.6
1980-1998	353	14.3
<u>Type of tenure:</u>		
Owner- occupied	1,260	51.2
Rented	1,105	44.9
Unoccupied or unknown	96	3.9
<u>Dwelling households, total</u>	2,357	100.0
Here of:		
with children	635	26.9
Singles	943	40.0
- with children	96	4.1
1 couple	1,295	54.9
- with children	502	21.3
Other	120	5.1

The various residential categories are discussed further below.

### 2.3 Owner-occupied dwellings

The total 1.3 million owner-occupied dwellings constitute one half of the total housing stock and house 62 per cent of the population.

Two thirds of the owner-occupied dwellings are detached houses. The average size is 136 m<sup>2</sup> and a typical detached house property covers 800 m<sup>2</sup>. Only 9 per cent of owner-occupied dwellings are owner-occupied flats.

Three-quarters of the owner-occupied dwellings are occupied by couples. In addition, households with children are overrepresented in the owner-occupied sector with a two-thirds share of the total number of households with children.

### 2.4 Rented dwellings and co-operative dwellings

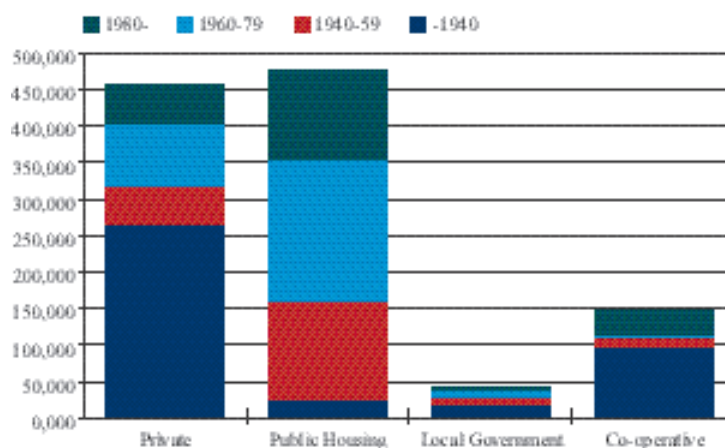
1.1 million dwellings, equivalent to 45 per cent of the housing stock, consist of various forms of rented dwellings (incl. co-operative dwellings) with the majority being private rented and public housing.

Rented dwellings are primarily intended to ensure that housing options are sufficiently varied to cover the housing needs of all groups in the population.

Rented housing consists entirely of multi-family dwellings, and while older buildings predominantly provide multi-storey housing, “dense-low” buildings have become increasingly common over the past few decades.

As opposed to owner-occupied dwellings, rented dwellings predominantly house single people, who represent two thirds of the households in the rented housing sector.

The final 4 per cent of the housing stock in 1998 is not accounted for here due to the fact that there were no persons registered as resident in the buildings in question at the time of the poll, either because the residents had recently moved or because the home was empty or used as a second home. Around 10 per cent of the housing stock changes hands every year.

*Figure 2.1 Rental and co-operative dwellings 1998*

The following provides a brief summary of the different types of rented housing.

#### 2.4.1 Private rented dwellings

Private rented dwellings are relatively old compared with the rest of the housing stock. Approximately 60 per cent of the buildings predate 1940, and in this sector of the housing stock in particular the need for refurbishment and urban renewal has accumulated.

Rent legislation for private rented housing is prescribed in two acts: the Rent Act and the Rent Control Act. As a general rule, the fixing of rental fees is restricted by law and does not reflect the market conditions (see section 3.5 for more details of rent legislation).

#### 2.4.2 Public housing

The majority of the 474,000 public housing units, equivalent to 19 per cent of the total housing stock, are relatively new, with a mere 5 per cent predating 1940.

The dwellings are built by public (non-profit) housing associations (a total 700 associations) and must be approved by the local authority district in which they are situated. Since this

sector receives government subsidy, the associations themselves are subjected to inspection by the local authorities.

The public housing sector is responsible for solving a range of social welfare problems which market forces have been unable to resolve to the extent required by government policy.

The public housing sector is characterised by extensive tenant participation (or “tenant democracy” as it is called in Denmark). The majority of the members of the boards of the housing associations are voted in by the tenants and the individual units have an extensive degree of autonomy.

The rent is set such that expenditures and revenues in the individual units balance out.

There are three different categories of public housing: family housing, housing for the elderly and youth housing.

### **Family housing**

The majority of public housing provide family housing. Family housing is not, however, reserved for specific groups in the population. In contrast to the situation in most other countries, Denmark sets no income limit for eligibility for public family housing. Households with children, however, are given priority on larger dwellings, just as the local authorities have the right to use one in four vacant flats to solve urgent social welfare cases.

### **Housing for the elderly**

The majority of elderly people reside in the general housing stock and through care services provided by the local authorities are able to receive care and assistance as and when needed.

Approximately 27,000 dwellings are government subsidised and purpose-fitted for the elderly and the disabled. The majority of such dwellings post-date the Act on Housing for the Elderly of 1987. The stock of public housing for the elderly fulfils a key objective of policies concerning housing for the elderly in that it enables the elderly to remain living in their own homes for as long as they are able.



Dwellings for the elderly are typically provided by new construction projects or conversions of residential properties and former commercial properties. It is a requirement that such housing be self-contained and fitted with own kitchen/kitchenette, bathroom and lavatory. The Law also requires that each dwelling is covered by a 24-hour emergency help call-out scheme and that the fittings and fixtures and accessibility be particularly adapted to cater to the needs of the elderly and the disabled, including wheelchair users.

The remaining stock of housing for the elderly consists of 35,000 places in traditional residential homes for the elderly, 5,000 sheltered dwellings and 3,000 quasi-communal dwellings.

### **Youth housing**

Around 20,000 of public housing units provide housing for young people. The total stock of youth housing consists of around 50,000 dwellings, of which 32,000 are in halls of residence. The target group for youth housing is made up of young people in education and young people with special needs, e.g. arising from social problems.

### **2.4.3 Co-operative dwellings**

The some 150,000 co-operative dwellings constitute an intermediate form of housing between owner-occupied and rented dwellings. Membership of a co-operative housing association does not involve the outright buying of a dwelling but a share of the association's total assets, i.e. the property in question. By buying a share, the member acquires the right to the use of a flat.

There are two types of co-operative dwellings:

- 1) New, government-subsidised purpose-built dwellings – approx. 40,000 dwellings have been built using subsidies since 1982.
- 2) Co-operative dwellings in the housing for the elderly sector have arisen through the pre-emptive Right-to-Buy guaranteed by Law, which enables occupants of private rented properties to buy a share in their dwellings when they come up for sale.  
This form of co-operative dwelling is not government-subsidised.

### 2.5 The building and construction sector

Put together as a single interrelated commercial sector, the building/construction sector had a total turnover in 1996 of DKK 320 billion and provided employment for 393,000 individuals, which translates into 291,000 in full-time employment. With a share of around one quarter of the overall private sector value increase, the building/housing sector therefore represents the largest private resource area in Denmark.

In 1998, the building and construction sector employed 141,000 individuals, of which 40,000 were employed in new building works, 47,000 in repair and maintenance work and 24,000 in civil engineering works. Also in 1998, the sector employed 25,000 white-collar workers.

Annual output amounts to only 1-2 per cent of the total building stock. This means that even small fluctuations in demand for buildings result in substantial changes in building activity trends and a corresponding need for flexibility in the industry.



*photo:  
Michael Kaadtmann*



While new building activities were previously the primary source of activity in the sector, this is now becoming more heavily weighted in favour of work in repair and maintenance of the existing building stock. Of the total investments in housing of DKK 47.3 billion in 1997, general repairs to housing accounted for just under half of the spending. In addition, investments in 1997 in civil engineering and building works, not including housing construction, amounted in 1997 to DKK 28.4 billion and DKK 33.7 billion, respectively.

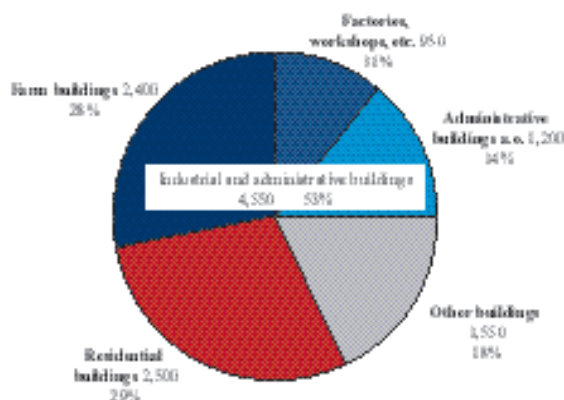
The building industry, which by tradition exclusively served the domestic market, has increasingly become an export industry, with total exports reaching DKK 35 billion in 1997. In addition to competitive prices, the high exports are due to the durability, eco-friendliness and architectural soundness of the products and solutions.

### 2.6 Building activity

New building works commenced in 1998 accounted for an area of approximately 8.6 million m<sup>2</sup>.

Construction for the commercial sector represented around half of new building works in 1998, of which well over 2 million m<sup>2</sup> were for agricultural building works.

Figure 2.2 Building activity 1,000 m<sup>2</sup> 1998



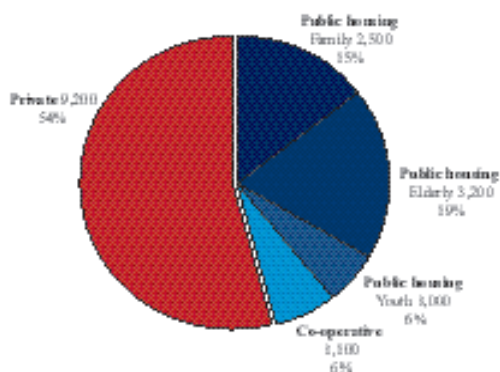
Approx. 30 per cent of new building commenced in 1998 was on residential property.



### 2.6.1 Housing construction

In 1998, construction commenced on 17,000 dwellings. 64 per cent of these were single-family dwellings: 8,100 detached houses and 2,700 terraced, linked and semi-detached houses. Two-storey houses accounted for 4,100 new construction works in 1998.

*Figure 2.3 Residential construction started in 1998 by type of builders*



Subsidised housing construction in 1998 accounted for approximately 7,800 new construction works, of which 2,500 were for public family housing and 3,200 were for public housing for the elderly.

The State and local authorities disburse subsidies to finance the costs of constructing subsidised housing. Since 1994, the administration of subsidised construction has been decentralised. Decentralisation has meant that it is up to local authorities alone to determine the scale of subsidised housing construction, including the types of housing required in the individual districts. The previously used system of quota management, i.e. where the Danish Parliament fixes the annual quota of dwellings that may be built, has been abolished for public housing, but still applies to co-operative dwellings.

Private sector housing construction, which receives no state subsidy, amounted to more than 9,000 works commenced in 1998. Detached housing accounted for approximately 65 per cent of private sector construction in 1998.

### 2.6.2 Acquisition costs for subsidised housing construction

The following table shows the average acquisition costs for subsidised housing construction in 1998 (DKK per m<sup>2</sup>).

*Table 2.2 Acquisition costs for subsidised housing construction in 1998*

(Average)	Public housing			Co-operative
	Family	Youth	Elderly	
DKK per m²:				
Land costs	1,800	2,100	1,800	1,900
Skilled labour	7,600	8,300	8,300	6,700
Other costs	1,400	1,300	1,700	1,500
Total	10,800	11,700	11,800	10,100
M² per dwelling	80	37	66	91

Financing and government subsidies for public housing and co-operative dwellings are described in more detail in section 3.2.1.

### 2.7 Urban renewal activity and refurbishment costs

Much of the demand for repair and maintenance services stems from the commercial sector, the public sector and the housing sector and is *unsubsidised*. As an estimate, public-subsidised urban renewal accounts for less than a tenth of the total investments made in large-scale refurbishment projects in 1998.

The emphasis in urban renewal is for the local authorities – who are responsible for making decisions in accordance with the Urban Renewal Act – to bear a significant share of the cost involved in “expensive refurbishment works” since a large proportion of the total refurbishment costs are to be treated as refurbishment losses. The size of these losses depends on the degree of wear and tear to the building and the extent to which rent ceilings can cover the costs. The size of the losses will therefore vary from property to property. Typically, all costs at a level above an estimated DKK 5,000 per m<sup>2</sup> will be converted to losses, and of these around half will be payable by the local authority.

*Table 2.3. Average refurbishment costs after the Urban Renewal Act in 1998*

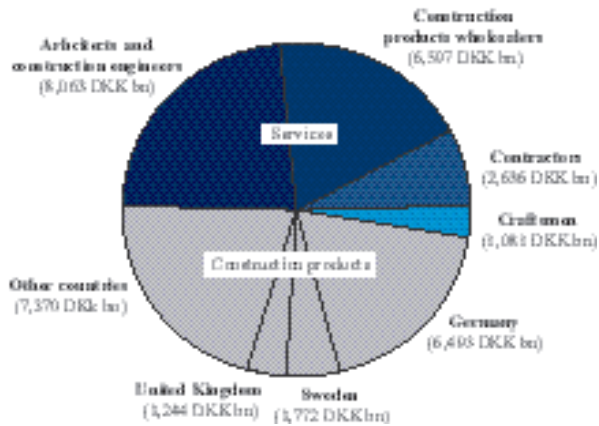
Number of dwellings	Refurb. cost (DKK million)	Refurb. cost per dwelling (DKK 1,000 )	Cost per m <sup>2</sup> (DKK)
1,931	725	380	5,000

In 1998, approval was given for urban renewal work on 2,000 dwellings at a total refurbishment cost of just over DKK 725 million, of which more than one third was reserved for dwellings in the City of Copenhagen.

Legislation, funding and government subsidies for urban renewal are described in more detail in section 3.2.2.

### 2.8 Building exports in 1997

In 1997, total Danish building exports amounted to DKK 35.3 billion. 52 per cent of exports were in the form of services, representing DKK 18.4 billion in 1997, while exports of construction products accounted for the remaining 48 per cent or DKK 16.9 billion. Consulting firms accounted for just under half of export turnover of services. These incorporate income from foreign subsidiaries of consulting firms, and allow for the provision of Danish foreign aid.

*Figure 2.4 Export sales in the building sector 1997*

Germany remains by far the largest single market for Danish construction products, with exports at DKK 6.5 billion in 1997, this being 38 per cent of total Danish exports of construction products. The second-largest market is Sweden, which bought for a value of DKK 1.8 billion. The third-largest market was Great Britain, which purchased for a value of DKK 1.2 billion in 1997.



## 3. Housing economy

### 3.1 Financing of real property

Financing of real property in Denmark is primarily achieved through mortgage loans issued by the mortgage banks. In recent years, mortgage loans have accounted for 90 per cent of all mortgages.

In the construction phase, the costs will typically be financed by a bridging loan from a bank. When construction has been completed, the developer will then apply for a mortgage.

Mortgage loans are calculated on the basis of the building's cash value and in accordance with the Mortgage Credit Act's provisions concerning lending limits, types of mortgage and the terms. Mortgage loans are raised through the sale of fixed-interest bonds or index-linked bonds on the Copenhagen Stock Exchange.

Apart from the security pledge from the borrower's personal liability, mortgages are secured by a registered loan against the value of the property. Provided that the borrower complies with the terms of repayment, the mortgage cannot be terminated by the lender. The borrower, however, has the right to make early repayment of the debt outstanding.

The mortgage loan will be issued either as a cash loan or a bond loan. Depending on which category the property belongs to, the purpose of the loan and to some extent the wishes of the borrower, mortgage loans may be repaid either as annuity loans, serial loans, index-linked loans or an adjustable-rate loan.

The following table summarises the lending limits and maximum terms for mortgages on different categories of property.

*Table 3.1 Lending limits and maximum terms for mortgages as at 1.1.1999*

Category of property	Lending limit (%)	Maximum term in years
Owner-occupied dwelling	80	30
Holiday home	60	30
Private rented	80	30
Co-operative (subsidised)	80	35
Public housing	84	35
Industrial	60	30
Agricultural	70	30

The costs of contracting a mortgage loan include a state stamp duty of 1.5 per cent of the loan, a land registration fee to the State of DKK 1,200, as well as a loan handling charge and commission. During the term of the mortgage, the borrower will usually make quarterly payments comprising interest on the outstanding loan and the repayment instalments (which sums the mortgage banks then transfer to the holders of the bonds forming the basis of the mortgage). In addition, the borrower pays a contribution to the safety fund and an administrative charge of approx. 0.5 per cent p. a. of the outstanding debt, which constitutes the earnings (interest margin) for the mortgage bank.

In 1997, the total amounts payable to the mortgage banks from mortgage loans on dwellings amounted to DKK 685 billion in 1997, with DKK 502 billion due from owner-occupied dwellings and DKK 183 billion owing from rented dwellings.

### **3.1.1 Financing and taxation of owner-occupied dwellings**

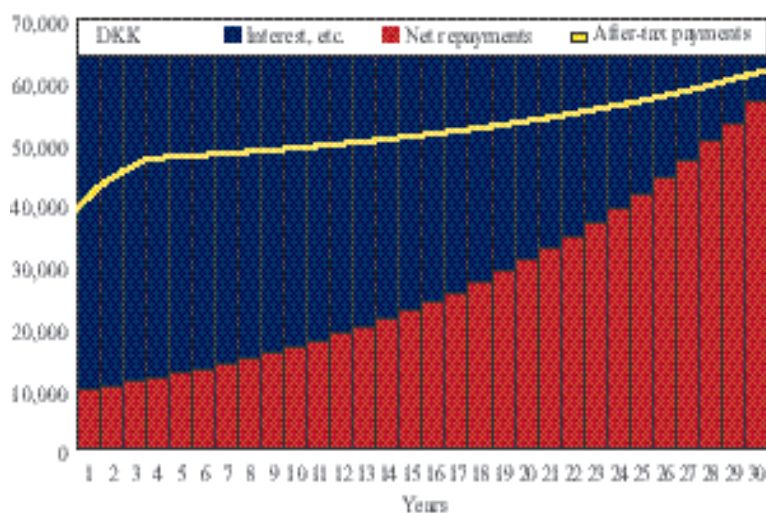
The purchase of an owner-occupied home is typically financed through an 80 per cent mortgage loan issued as a 30-year annuity loan. The remaining financing is typically secured by means of a mortgage deed or bank loan (10-year loan) and a cash payment.

Figure 3.1 shows the schedule of repayments on a 30-year mort-

gage loan of DKK 800,000. The figure also shows repayments after tax. In Denmark, interest expenses are tax deductible on the annual income tax return, while conversely, interest income is generally taxable. The taxable value of interest expenses for 1998 amounts to an average 46 per cent and this will be gradually reduced to 32 per cent by the year 2001.

The estimated total tax value of deductible interest amounts to DKK 20-25 billion in 1998.

*Figure 3.1. Repayments schedule on a 30-year mortgage loan of DKK 800,000 with interest at 6.3 per cent p.a. (nominal prices)*



Note: Tax rate set at 46.0 per cent for the initial year 1998

In addition to deductible interest, house owners (not incl. owner-occupied flats) are entitled to a standard deduction for home maintenance. The standard deduction amounts to 1 per cent of the basis of calculation used to calculate the *rental value of the dwelling*, though a minimum of DKK 400 and a maximum of DKK 3,000.

The standard deduction is set against the rental value of the dwelling (the imputed return on the housing investment). In



1998 the rental value was set at 2 per cent of the value set by the public land assessment but 6 per cent for the taxable value of the property above a limit of DKK 1.6 million. (The rental value percentage is reduced for pensioners).

Denmark's total tax value of the rental value of owner dwellings amounted to an estimated DKK 7 billion in 1998.

From the year 2000, the current tax on the rental value of own homes will be abolished and replaced by a *municipal property value tax*. For dwellings with a taxable value below DKK 2,150,000, the tax on property value will start at 10/1000 of the taxable value (30/1000 for the amount of taxable property value exceeding DKK 2,150,000.). The standard deduction will also lapse on change of ownership.

In addition to the rental value of their own homes, homeowners also pay a property tax in the form of *land tax*, which is a tax on the value of the land paid to the county and local authority. The minimum land tax payable to a local authority is 6/1000, with the maximum at 24/1000. In 1998 the average local authority land tax was 14.9/1000. The land tax payable to the county is set at 10/1000.

In 1997, total real property taxes in Denmark amounted to around DKK 10 billion, of which just under DKK 5 billion comprised real property taxes on owner-occupied dwellings.

### 3.2 Government subsidies for housing construction and urban renewal

#### 3.2.1 Financing of new public housing and co-operative dwellings

From 1 January 1998, the acquisition costs of *public housing* (family housing, youth housing and housing for the elderly) are financed as follows:

- |                                  |             |
|----------------------------------|-------------|
| • Resident's deposit             | 2 per cent  |
| • Local authority capital grants | 14 per cent |
| • Mortgage loan                  | 84 per cent |



The resident's deposit is payable by residents on taking up residence in the housing. The deposit is refunded to the resident when the resident vacates the housing.

The capital grants is a loan issued by the local authorities. The loan, which covers 14 per cent of the acquisition cost, is interest free and repayments do not have to be made for up to 50 years. The capital grants is frequently disbursed immediately after the issue of an undertaking to grant a state subsidy, e.g. to cover the costs of buying the land and the architectural design work ect.

Most of the acquisition cost is financed by means of a mortgage loan (84 per cent). Up to year-end 1998, the procedure has been for the granting of index-linked loans (type IS), in which the amount outstanding on the loan is index-linked with full inflation and where repayments are index-linked to  $\frac{3}{4}$  of the inflation or pay increases if they are lower than the inflation. The biannual net repayment percentage on an IS-loan amounts to 1.4 per cent, for a mortgage maturing within 35 - 50 years. The nominal interest on an index-linked loan is 2.5 per cent p.a. In the first term, no net repayments will be due on the mortgage loan.

Index-linked mortgages have been compulsory for subsidised new housing projects in the period 1982 to 1998. From 1 January 1999, a financing reform came into effect for public housing, whereby index-linked loans will be replaced by ordinary 30-year fixed-interest nominal mortgages, i.e. a mortgage based on regular net repayments (annuities) and without index-linking of the debt outstanding and repayments, which are typically used for owner-occupier financing. Later on, the option to take out different kinds of mortgage may be provided, since the fundamental principle will be to choose the type of financing that ensures the lowest possible long-term costs.

The State makes a repayments subsidy to cover the gross repayments on the mortgage loan not paid by the residents.

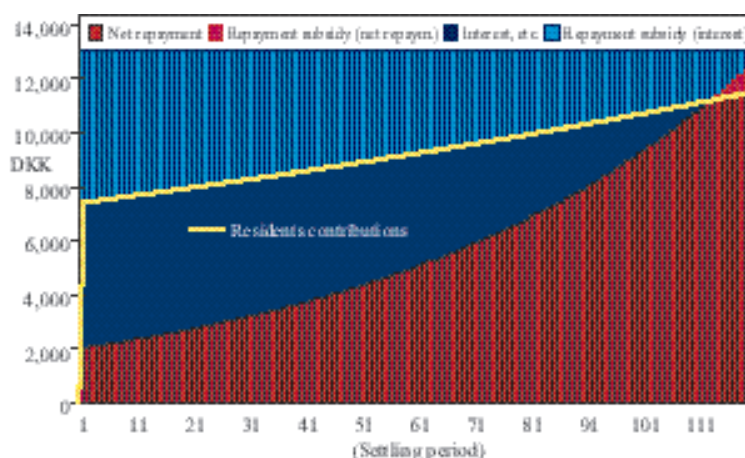
Residents' contributions are equivalent to 3.6 per cent p.a. of the total acquisition cost of the housing and are adjusted continually in the same way as the net repayments. The subsidy is disbursed throughout the term of the mortgage or until the residents' contributions cover the entire gross repayments and are referred to as "ydelsesstøtte" (repayments subsidy).

From 1999, residents' contributions will be made entirely independent of the financing. Residents' repayments will from then on be adjusted over a fixed term of 35 years. As opposed to the rules pre-1999, adjustable contributions will continue after the mortgage has been repaid. Once the mortgage has been repaid, the residents' contributions will instead be used to fund subsidies for future new housing projects.

Figure 3.2 shows the mortgage loan on a public family housing built for a total acquisition cost of DKK 825,000 (average for 1998) and financed as follows:

- Residents' deposit DKK 16,500
- Local authority capital grants DKK 115,500
- Mortgage (30-year fixed-interest nominal loan) DKK 693,000

Figure 3.2. Repayments schedule on a nominal mortgage loan of DKK 693,000. (Current prices).



Note: Effective interest of 6.3 per cent p.a.

With a discounting factor of 5 per cent p.a., the current value of the capital and interest repayments schedule shown above, including the residents' down payment and local authority basic capital, amounts to DKK 934,600. Of this, the subsidy amounts to just under 42 per cent, equivalent to a repayments subsidy for the mortgage loan of just under DKK 275,000 and for the capital grants of DKK 115,500.

For public housing for youth, the State disburses, in addition to repayments subsidy, *youth housing contribution* of an annual DKK 128 per m<sup>2</sup> (for 1998). The subsidy therefore amounts to approximately two-thirds of the total costs (based on current value).

*Co-operative dwellings* are financed by a 20 per cent co-operative down payment and an 80 per cent mortgage loan with repayments subsidies. For co-operative dwellings also, the index-linked loan will be replaced by nominal loans from 1.1.1999. The residents' contribution represents 4.48 per cent of the acquisition costs and is therefore larger than in the case of public housing. The direct state subsidy (consisting exclusively of a subsidy for the mortgage loan) amounts to 12 per cent of total repayments, including the down payment.

Total government spending on direct financing subsidies for public housing and co-operative dwellings amounted to DKK 4.8 billion in 1998.

### 3.2.2 Government subsidies for urban renewal

Since 1933, Denmark has had an act relating specifically to redevelopment/urban renewal. Over the past few decades, urban renewal activities have been concentrated on the conservation aspect of urban renewal.

In 1998, 219,000 dwellings, less than one tenth of the housing stock, were deficient with respect to one or more installations. Since 1980, the number of dwellings with installation deficiencies has been reduced by 205,000 dwellings and as such the most pressing urban renewal problems have been solved.

In recent years, an increasing need has emerged for a more holistic approach to urban renewal with the objective of



improving individual urban areas and residential areas on a broader scale. As part of a drive to meet this need, the Urban Renewal Act will be amended with effect from 1.1.1998.

The Act will help to effect a continued process of decentralisation, and will provide local authorities with the necessary instruments to allow them to organise their drives for urban renewal with a more holistic approach and make decisions about local conditions. The majority of resources for urban renewal will, however, still be allocated for refurbishment of the most severely run-down housing.

City councils can choose one or more of the following types of urban renewal:

- *Holistic urban renewal* aims for a total approach to re-establishing a defined city sector and will typically involve redirecting traffic flow, cultural activities, improvements to the structural qualities of buildings. The State reimburses 20-50 per cent of local authority expenditure.
- *Urban renewal* will typically involve improvements to housing and open spaces, as well as demolition and new constructions. The provisions for urban renewal apply to buildings predating 1970. The local authorities can opt to demolish buildings and erect new buildings if projected spending on refurbishment works exceeds approximately DKK 9,000 per m<sup>2</sup>.
- *Fixed-term home improvements*. The provisions apply to private co-operative dwellings and private rented properties. Owners and tenants are required to take the initiative for such improvements. For private rented properties, the State will grant a subsidy for 50 per cent of the formally agreed rent increase to cover home improvement works carried out in the first 8 years. In the following 8 years, the subsidy will be stepped down by 6.25 per cent per annum.
- *Property refurbishment committees* can provide interest and instalment-free loans for special property refurbishment. The committee, which is established under the auspices of the local authority, is able to disburse grants to listed and heritage-value buildings, and rural residential properties. State funding must not represent more than two-thirds of spending that qualifies for subsidisation.

The investment budget for urban renewal is drawn up each year by the Danish Parliament. For 1999, the investment budget is set at DKK 2,000 million, of which a maximum DKK 125 million has been allocated to holistic urban renewal programmes. An investment budget of a further DKK 400 million has been allocated for fixed-term home improvements.

The costs involved in radical home improvements are often so large that the residents of the properties are unable to carry the cost themselves. When a local authority passes a *resolution on urban renewal*, state subsidies will therefore be made available.

Government subsidies are granted to all works covered by the resolution, e.g. demolition, compensation for home-owners, re-housing of residents and the development of open spaces. In addition to these, there are the actual costs of refurbishing the properties.

These costs include:

- *Improvements*, i.e. works to increase the value of the property, e.g. the installation of central heating, sanitary facilities, roof insulation.
- *Refurbishment losses*, i.e. other refurbishment works which do not increase the value of the property, e.g. roof replacement, puttying of windows. Refurbishment losses may also include the portion of home improvement costs that cannot be financed through rent ceilings (83-100 per cent of the rent in new public housing in the area in question).

For the financing of these costs, the government will contribute a subsidy and/or benefits, depending on which costs come under improvements or refurbishment losses. The distribution of improvements and refurbishment losses is determined by the local authority. State guarantees are also available to cover portions of loans that exceed 80 per cent of the property's value.

From 1999 the costs of urban renewal are financed as follows:

*Improvements* to private rented properties are financed through mortgage loans. The loan is a fixed-rate annuity loan (i.e. the service on the loan is a fixed percentage of the principal) with a term of 30 years and cash proceeds equivalent to the approved expenditure on improvements. The state contribution is a subsidy which makes up the difference between a basic contribution of 5 per cent of the cash proceeds (the residents' contribution via rent) and the gross repayment on the loan. The contribution is stepped down by adjusting the basic contribution by a price index.

*Refurbishment losses:* in accordance with the Rent Act, refurbishment losses include all maintenance costs since these costs cannot be covered by a rent increase – and thereby an increase in value. Refurbishment losses will be financed by an 30-years fixed-interest nominal mortgage loan. Later on, the option to take out different kinds of loans may be provided. The State and local authority (50% each) will service the entire loan (repayments subsidies).



*Urban renewal in Istedgade-  
quarter, Copenhagen  
photo: Espen Jürgensen*

*Table 3.2 A private rented dwelling of 75 m<sup>2</sup> refurbished under an urban renewal scheme in 1999 at a total cost of DKK 390,000*

	Improvements	Refurbishment losses	Total
Cost	260,000	130,000	390,000
Financing	30-year loan	30-year loan	
Effective interest	7.4 per cent	7.4 per cent	
1 <sup>st</sup> year's total repayments	22,000	11,000	33,000
- Residents	13,100		13,100
- State	8,900	5,500	14,400
- Local authority		5,500	5,500
Current value	358,400	179,200	537,600
- Residents	265,400		265,400
- State	93,000	89,600	182,600
- Local authority		89,600	89,600

Note: Inflation: 2.5 per cent. Actual discounting factor: 2.0 per cent

Table 3.1 shows the breakdown of costs for an urban renewal investment of DKK 390,000 between residents, State and local authority for the first year and for the total cost (current value). The example is based on the assumption that the refurbishment costs are allocated by 2/3 for improvements and 1/3 for refurbishment losses.

The current cost calculation shows that government subsidy accounts for 50 per cent of the total refurbishment costs.

In 1998, the total government spending on ongoing subsidies for urban renewal amounted to DKK 1.4 billion.

### 3.3 Household expenditure on use of the home

The largest single item in Danish household expenditure is on use of the home. For rented dwellings, this expenditure consists primarily of rent (excluding recipients of housing benefits) and for owner-occupied dwellings, an expenditure equivalent to an estimate of what would be paid if the properties were rented. In 1995, average expenditure on use of the home

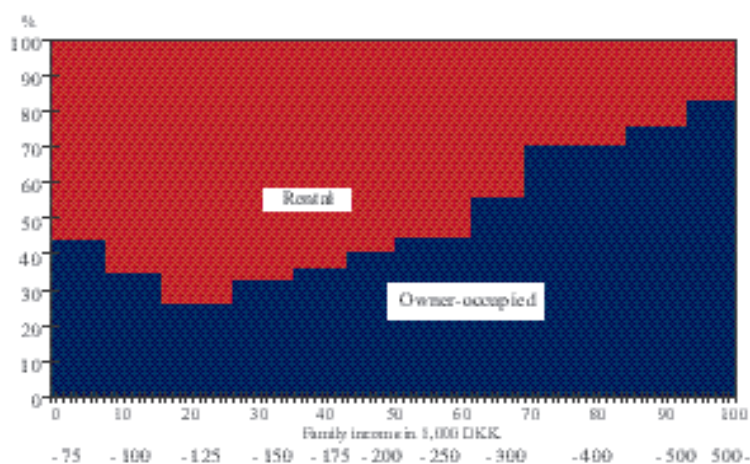


amounted to DKK 42,600, equivalent to 22 per cent of average household expenditure. In addition to this, an average DKK 11,800 is spent on heating and energy, equivalent to 6 per cent of household expenditure.

Household expenditure for owner-occupied dwellings and rented dwellings amounted to DKK 51,100 and DKK 33,600 respectively, the difference reflecting the fact that owner-occupier households spent slightly more than 50 per cent in comparison with rental households on use of the home. This is due to the fact that owner-occupied dwellings tend to be larger than rented dwellings, with more adults in the household and therefore a much larger income.

In 1995 the average household income before tax was DKK 305,300 in the owner-occupied sector, while the household income in the rented sector was DKK 190,700 (after tax DKK 188,600 and DKK 124,300 respectively.). Figure 3.3 shows that households with an income above DKK 250,000 are over-represented in the owner-occupied sector, while conversely households with an income below DKK 250,000 are over-represented in the rented sector.

*Figure 3.3 Housing type of households in percentages divided according to household income in 1995*





### 3.4 Rent 1995

Approximately every fifth year information about rent (not including heating charges, etc.) is obtained on rented dwellings and commercial leases. The most recent rent survey dates from September 1995.

#### **Rent throughout the entire rented sector.**

The average rent for all rented properties in September 1995 was DKK 437/m<sup>2</sup>/year.

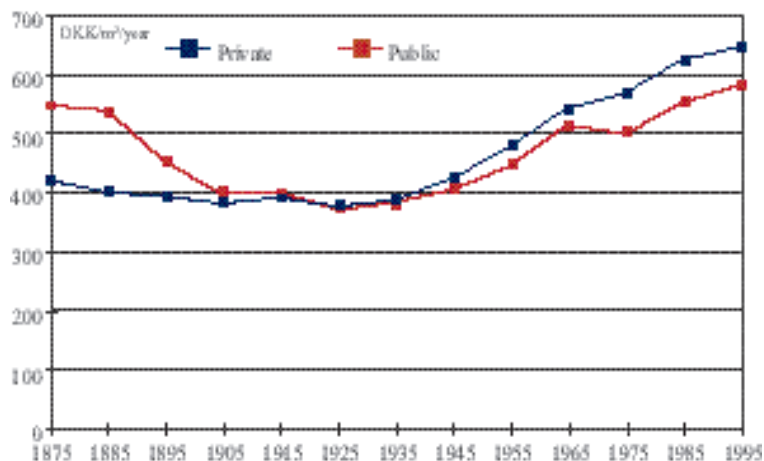
This average rent covers a relatively large spread, which is partly due to differences in the age of the building, ownership structure, and geographical location as well as differences in the quality, size, etc. of the dwellings. For dwellings built in the same year, the biggest rent spread is between the oldest houses, with the smallest spread between the newest houses. Rents are therefore more convergent the newer the dwellings get.

Taking all categories of rented dwelling as a whole, 80 per cent of the rents were between DKK 297 /m<sup>2</sup>/year (the 10 per cent quantile) and DKK 604 /m<sup>2</sup>/year (90 per cent quantile).

#### **Public housing and private rented dwellings**

For public housing, rents averaged DKK 445 /m<sup>2</sup>/year in September 1995. For private rented dwellings the rents were DKK 426 /m<sup>2</sup>/year. The difference between the average rents for the two categories of housing was thus DKK 19 /m<sup>2</sup>/year, equivalent to 4.5 per cent.

Figure 3.4. Average rent for public housing and private rented dwellings categorised by period of construction (DKK/m<sup>2</sup>/year)



### Commercial leases

Taking all commercial categories as a whole, the average commercial lease was DKK 560 /m<sup>2</sup>/year in September 1995. The highest leases were for offices and services, etc. and the hotel industry and catering, where the average leases amounted to DKK 634 and DKK 681 /m<sup>2</sup>/year respectively.

### 3.5 Rent legislation

Over the years, rent legislation has undergone numerous changes, partly as a result of changing trends in the housing market. The latest initiative is for the introduction of a universal rent act applying to public housing as at 1.7.1998.

The Rent Act relating to residential tenure will comprise three Acts:

- The Rent Act
- The Rent Control Act
- The Act on Public Housing Rent

The first two concern private rented housing, while the last concerns public housing.

#### **3.5.1 The Rent Act**

The Rent Act applies to all tenures in private rented dwellings (approx. 457,000 dwellings in 1998), i.e. not public housing units. The legal relationship between the lessor (usually synonymous with the owner) and the lessee is defined by the tenancy agreement, which must conform to the provisions of the Rent Act.

In principle, the Rent Act prohibits the lessor from unilaterally terminating the tenancy agreement. The lessee, however, may terminate a tenancy agreement at 3 months' notice.

The Rent Act contains a long series of provisions governing the relationship between the two parties with regard to, for example:

- the owner's use of the rented dwelling
- payment of rent
- changes to the conditions of tenure ("the value of the rented property")
- rent increases as a result of improvements to the property

The fixing and adjustment of the rent is associated with the concept of the "value of the rented property". If the rent is substantially different to that for comparable tenure in the same residential area, both the lessor and the lessee are entitled to ask for the rent to be adjusted.

Any dispute between the lessor and lessee concerning conditions provided for in the Rent Act, may be brought before the Rent Court, which is the judicial court of first instance for housing-related cases.

#### **3.5.2 The Rent Control Act**

The Rent Control Act replaces or supplements the provisions of the Rent Act. Its provisions are particularly relevant to the fixing of rent. The Rent Control Act is aimed especially at large city



councils, but it is up to each individual council to determine whether or not the Act is to be applied in the district under its authority.

149 districts containing 385,000 private rented dwellings (1998), equivalent to 85 per cent of the total stock of rented dwellings, have adopted the Rent Control Act.

The regulations of the Rent Control Act comprise a key provision whereby the rent is fixed and controlled according to the principle of costs-determined rent. The regulations are thus based on the fundamental principle that the lessor is entitled to ask for a rent increase if the total current rent is insufficient to cover the costs of running the property and an estimated return on capital.

Costs-determined rent also includes amounts, which according to the regulations, must be allocated for maintenance of the property. The return on capital is calculated as 7 per cent of the value according to the public land assessment of 1973. For properties built after 1963, the return on capital can, however, be set higher.

According to the Rent Control Act, special regulations apply to the fixing of rent for small properties (less than 7 dwellings). For administrative purposes such properties are not formally covered by the regulations applying to costs-determined rent, but are instead covered by a special variant of "the value of the rented property" principle which ensures that the actual rent does not differ significantly from the costs-determined rent. An estimated 135,000 dwellings are covered by these regulations. For private rented dwellings, taken into use after 1991, the fixing of the rent is unrestricted by law, irrespective of whether or not they are covered by the Rent Control Act. This applies to 10-15,000 dwellings.

Any dispute between the lessor and lessee concerning conditions provided for in the Rent Control Act may be brought before the Rent Board in each local district. The Rent Board is an admi-

nistrative complaints body, whose rulings may be brought before the Rent Court, cf. above.

### 3.5.3 The Act on Public Housing Rent

Regulations in the Act on Public Housing Rent are basically comparable to those of the Rent Act. The regulations are, however, extensively supplemented or replaced by special rules concerning the fixing of rent in public housing. The regulations apply in all districts.

The rent for public housing is fixed and controlled according to the “rent balance” principle, whereby the overall rent for a unit’s houses must at all times be sufficient to cover the unit’s operating expenses. The finances of each individual unit are independent of the finances of other unit’s in the housing association.

Any dispute between the lessor (the public housing association) and the lessee concerning conditions provided for in the Act on Public Housing Rent may be brought before the Residents’ Complaints Board, which like the Rent Board is an administrative complaints body, whose ruling can be brought before the Rent Court. Due to the balanced rent principle, disputes concerning the fixing of rent can, however, not be brought before the Residents’ Complaints Board. As opposed to what applies to private rented dwellings in districts with Rent Boards, breaches of house rules may be brought before the Residents’ Complaints Board.

### 3.6 Individual housing benefits

The aim of individual housing benefits disbursed by the Danish Ministry of Housing and Urban Affairs is to ensure that households on low incomes are able to obtain sound and fit dwellings.

Two types of individual housing benefits are available in Denmark: rent allowance and rent subsidy. Rent allowances are granted to pensioners and rent subsidies are awarded to non-pensioners. Both rent allowances and rent subsidies are primarily aimed at households in rented dwellings.



In 1998, an average of 333,000 households received rent allowances, while an average of 166,000 households received rent subsidies. The total 499,000 households, equivalent to approximately 21 per cent of all households in Denmark, received an average of DKK 17,000 in individual housing benefits in 1998. For households which received housing benefits in 1998, the average benefits covered 50 per cent of the rent (60 per cent for pensioners and 30 per cent for non-pensioners).

The granting and calculation of rent subsidies and rent allowances are based on a series of objective criteria, and principally on the income and expenditure on use of the home of each individual household. The household income is calculated as the sum of the incomes from each member of the household. Other highly significant criteria used for the calculation of housing benefits are the number of children and pensioners in the household.

Rent allowance is principally calculated as the difference between the threshold amount and 90 per cent of expenditure. The threshold amount represents 10 per cent of the proportion of the household income below DKK 123,500 DKK, plus 20 per cent of the household income exceeding this threshold.

Rent subsidy is principally calculated as 75 per cent of the difference between expenditure and the threshold amount. The threshold amount represents 16 per cent of the proportion of the household income below the threshold limit of DKK 123,500, plus 26 2/3 per cent of the proportion of household income exceeding this threshold.

For the household income used for the individual housing benefits calculation, a deduction of DKK 26,300 is made for each child in the household. For non-pensioners without children, the special rule is also applied whereby rent subsidies cannot exceed 15 per cent of expenditure on the house.

For recipients of rent allowances, a deduction is made for for single pensioners of DKK 26,900.

A household rent subsidy or rent allowance cannot exceed DKK 28,932 per annum. This maximum limit will be raised for households with four or more children or persons with severely restricted mobility.

The rent base used for calculating rent subsidies and rent allowances cannot exceed DKK 54,900 per annum. This maximum limit will, however, be raised for households with children or persons with severely restricted mobility.

In December 1998 a reform to the individual housing benefits scheme was adopted which contained a series of amendments and simplifications of the rules for calculating individual housing benefits. The reform will be introduced over a five-year period and has come into effect on March 1<sup>st</sup> 1999. When the reform has been fully implemented, individual housing benefit will be calculated as *a proportion of the rent less a proportion of the income*.

$$\text{Rent subsidy} = 0.6 \times \text{Rent} - 0.18 \times (\text{income} - \text{progression threshold})$$

$$\text{Rent allowance} = 0.75 \times (\text{Rent} + \text{DKK } 4,100) - 0.225 \times (\text{income} - \text{progression threshold})$$

where the progression threshold equals DKK 97,800 with an added DKK 25,700 per child for the 2<sup>nd</sup> – 4<sup>th</sup> child.

(All amounts are in 1999-level)

The proportion of rent is 60 per cent for recipients of rent subsidy and 75 per cent for recipients of allowances. The rent for recipients of rent allowance is raised by DKK 4,100 before calculation of the proportion.

Of the proportion of income exceeding a special threshold, an 18 per cent proportion of income will be calculated for recipients of rent allowance, and for recipients of rent subsidy, a 22.5 per cent proportion. For households with an income below the progression threshold, there will be no income-determined reduction of housing benefit.

The progression threshold is DKK 97,800 with an added DKK 25,700 per child for the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> child.

All recipients of housing benefit will be required to pay a standard minimum net rent. For recipients of rent subsidy, the minimum rent has been set at DKK 16,500. For recipients of rent allowance, rent payable is 11 per cent of household income, though at least DKK 10,300.

Housing benefit will also be made dependent on household assets with the introduction, for purposes of calculation, of an addition to the income in cases where the assets exceed DKK 500,000.

The current rules concerning income calculation, maximum housing benefit (DKK 28,932), the standard floorage of dwellings, etc. will remain unchanged. The special rule by which housing benefit for non-pensioners without children cannot exceed 15 per cent of the rent will similarly remain unchanged.

In Denmark, individual housing benefits are disbursed by local authorities. The State refunds 50 per cent of local authority spending on rent subsidies and 75 per cent of their spending on rent allowances.

*Table 3.3 Rent allowance 1999 for typical pensioners*

DKK per year	Pensioner Single	Pensioners 1 couple
Household income	95,640	138,128
Rent	30,000	35,000
Rent allowance	20,196	16,248

*Table 3.4 Rent subsidy 1999 for typical non-pensioners*

DKK per year	Unemployed Single without children	Unemployed Single with 2 children
Household income	143,416	143,416
Rent	35,000	40,000
Rent subsidy	5,256	19,200



### 3.7 Public spending on housing in 1998

In 1998, total public spending on housing-related benefits and subsidies was just under DKK 15 billion, equivalent to around 2.5 per cent of overall public spending.

Table 3.5 shows that the overall public spending on housing benefit in 1998 amounted to just under DKK 8.5 billion, equivalent to more than half of the overall spending. Spending on rent allowance accounted for three-quarters of total expenditure on housing benefits. The State covers an average 70 per cent of the expenditure on housing benefits.

Spending on subsidised housing construction amounted to DKK 4.8 billion in 1998. The expenditure includes government and local authority subsidies for financing of the construction costs for public housing and co-operative dwellings. The State financed around 4/5 of public expenditure on subsidised housing construction.

In 1998 public spending on redevelopment and urban renewal amounted to DKK 1.4 billion. As in the case of spending on subsidised housing construction, spending figures for redevelopment and urban renewal chiefly relate to investments made in previous years.

*Table 3.5. Public spending on housing in 1998*

	DKK million	%
Individual housing benefits	8,455	57.4
– Rent allowances	(6,458)	(43.8)
Subsidised housing construction	4,835	32.8
– Capital grants	(418)	(2.8)
Redevelopment and urban renewal	1,418	9.6
Other expenditure	27	0.2
Total	14,734	100.0

The statement of public spending on housing exclusively covers direct subsidy or benefits. In addition to these, indirect subsidies are also granted in connection with the entitlement to deductible interest. (See section 3.1.1 concerning taxation of owner-occupied dwellings).



## **4. Urban affairs and housing policy initiatives**

### **4.1 Urban affairs policy and the Ministry's five outline issues**

The Ministry of Housing and Urban Affairs's future-oriented initiatives can be categorised within 5 outline issues: community welfare, building structures (ecology, quality, architectural design), micro-economics, information technology (IT) and international initiatives. These outlines were presented in a Building and Housing Policy Report to the Danish Parliament in April 1995 and were revised in autumn 1996. The initiatives on these issues are reviewed in sections 4.2 - 4.6.

With the change in name from the "Ministry of Housing and Building" to the "Ministry of Housing and Urban Affairs" in spring 1998, the Government sought to place increased emphasis on urban affairs, issues and development. The aim of urban policy initiatives is to improve living conditions and services for the residents, associations and enterprises living and operating in the urban communities. See section 4.1.1 below.

#### **4.1.1 Formulating an urban policy**

In June 1998, the Minister of Housing and Urban Affairs presented the Government green paper "Urban Development – An Urban Policy Discussion Paper" to be followed up in early 1999 by a final Urban Policy Blueprint and Action Plan. Based on a principal vision for the city to be a desirable place to live and work – for disadvantaged groups in society also – it is the principal task of urban policy to create a foundation for integrated urban development, with an holistic approach to the urban community, where individual city sectors are addressed as a unified whole. In more concrete terms, the Blueprint and Action Plan is to ensure a process of urban development, in which Danish cities and large towns remain the wellspring of society's general growth – in terms of

economy, science, knowledge and culture. As stated above, the Action Plan will similarly help to sustain holistic urban development from city to city in order to ensure that urban growth and development does not ultimately result in detrimental social, economic or environmental impacts.

Themed around a discussion of urban development, international trends and the challenges presented by urban policy, the Blueprint will present an overall strategic framework for future urban policy, presenting both current urban policy instruments, as well as proposals for new instruments. This strategic framework will subsequently form the basis for a series of concrete project proposals in the final Action Plan.

To a large extent, both the Blueprint and Action Plan as a whole and the individual project proposals reflect the action plan for sustainable urban development presented by the European Commission in October 1998. The main objectives of the Action Plan are to reinforce economies and therefore also employment opportunities, to promote equality of opportunity, community involvement and renovation of urban areas, to protect and improve the urban environment in the interests of ensuring sustainable urban development and finally to improve urban administration and community participation. These are the objectives which the Government has already presented in June 1998 in its green paper "Urban Development", and which the Action Plan will help to realise. As such, the conditions and issues of growth, sustainability and full implementation, urban and community conditions, urban ecology and the environment, urban architecture, community participation and organisation, science and dissemination are incorporated as intrinsic components in the implementation of the individual project proposals.

The project proposals, prepared in collaboration with the respective ministries responsible, contain proposals for the co-ordination of existing schemes and initiatives, as well as proposals for new urban policy initiatives. The majority of the projects will call for wide-scale cooperation between the many instigators and organisers of urban policy, with a prominent role for local authorities in most of the projects. The local authorities will also often be the ones to take the



initiative for starting up and reporting on the actual projects themselves.

In broad terms, the project proposals of the Action Plan embrace the following concepts: 'The vital industrial and commercial city', private-public sector cooperation agreements, flagships in the city, urban transformation, 'art in the city', 'nature in the city', social and cultural scope in the city, alternative forms of housing, urban traffic and transport infrastructures, residents' participation, city management and administration, and creation of a City Forum.

Although all the projects as a whole embrace many facets of urban life and urban development, the Action Plan is far from exhaustive. Urban policy is not a project that starts and runs for a finite period, but is instead a process that has to be continually reviewed and further improved. The proposals for specific projects should therefore be seen as the Government's first crucial steps towards an urban policy. Projects of this nature will after a period undergo a "performance review" and this will then foster new project proposals. In this context, the City Forum will play a crucial role with respect to coordinating the many urban initiatives and the gathering and communication of first-hand experience and new knowledge.

### **The housing market in a future Øresund Region**

The establishing of the fixed link across Øresund, the Sound between Zealand and Southern Sweden, will lead to closer integration in the Øresund Region, including the potential for creating an integrated housing market spanning both sides of the waters. The bridge will serve to link not only two countries, but also the two major cities of Malmö and Copenhagen. In order to identify essential action areas and to define a strategy for building and housing issues with respect to a future Øresund Region, the Ministry of Housing and Urban Affairs and the City of Copenhagen have appointed a special working group.

### **4.2 Community welfare initiatives**

Community welfare initiatives are focused on two sub-objectives: the development of a cohesive urban policy and the formulation

of goals and instruments for the housing market of the future, particularly with regard to the preparation of a Community Welfare Action Plan to concentrate on marginalised groups in the housing market.

#### 4.2.1 The Urban Affairs Committee

The variety and complexity of problems in the cities and urban neighbourhoods necessitated an inter-ministerial drive. In September 1993, the Government appointed a special Urban Committee with the aim of implementing a holistic programme to tackle problem neighbourhoods. The majority of the 30 proposals in the Urban Affairs Committee Action Plan of October 1993 have now been implemented and comprise a change of priorities, particularly with regard to refurbishment and bringing down the cost of rent, as well as the appointment of Residents' Counsellors in Public housing estates, organisation of social events, community integration in schools, etc. In addition, the Urban Affairs Committee has started up 6 pilot schemes for neighbourhood gentrification.

At Government level, the Urban Affairs Committee comprises 6 ministers with the Minister of Housing and Urban Affairs as Chairman.

#### 4.2.2 Neighbourhood gentrification

The Government's Urban Affairs Committee adopted the decision in November 1995 to carry out pilot projects for neighbourhood gentrification in Denmark. The projects aim for a holistic approach to urban neighbourhoods that on the one hand have major problems, and on the other have abundant resources, which could be drawn on to resolve the problems and which would therefore enable the participation of community-based forces. The aim of the projects is partly to improve the selected housing estates and partly to gather experience from the initiative, and transfer this to other city councils and areas with a need for similar initiatives.

In June 1997, 6 cooperation agreements for neighbourhood gentrification projects were finally processed by both the government's Urban Affairs Committee and the relevant local authorities.



The agreements are largely framework agreements, within which the final specifications of the projects will be made. On a number of points they therefore convey information and declarations of intent rather than precise undertakings, just as they also seek to make provision for the fact that the projects may evolve during the democratic process. The agreements also define how the project might conceivably be organised, and set out the criteria for success in order that achievements may be measured.

In the agreements, the Ministry of Housing and Urban Affairs typically undertakes to provide an adjustable grant of DKK 1-2 million to the local authorities, with a 75% state reimbursement in 1997 for project planning and a similar amount for each of the years 1998-2001 and has also issued declaration of intent for grants within an adjustable investment framework of more than DKK 400 million. Many of the project concepts will also be eligible for grants from various funds or other Government schemes. The Urban Affairs Committee has undertaken to work actively to promote this form of funding.

### 4.2.3 Community welfare programmes in public housing estates

During the period 1994-1997 subsidies have been granted to a series of community welfare programmes aimed at problem housing estates and their residents.

An essential element in the community welfare initiatives has been the resident counselling schemes, which for each of the years has been allocated a subsidy of DKK 40 million. Grants have also been awarded to a series of community welfare initiatives in selected neighbourhoods, including those containing Public housing. Examples of this type of initiative would be the grants for running meeting and activity centres for residents, day centres aimed at immigrant and refugee mothers and recreation activities for groups of young people at risk.

In February 1997, the Urban Affairs Committee decided that both the community welfare activities and the residents' counselling schemes should be continued in the period 1998 - 2002.

Against this background, approval has now been granted for the appointment of a total of 73 residents' counsellors and the start-up of approximately 80 community welfare activity projects in the hardest hit urban neighbourhoods and estates.

#### 4.3 Building structures (ecology, quality, architectural design)

The aim of the initiative for building structures is to generate increased demand in the building and housing sector for ecological solutions and techniques, together with sound architecture and quality. One element will be the gradual targeting of public demand and state regulation in order to create incentives in the sector to promote these conditions.

For this outline issue, the Ministry has produced two Action Plans: "Urban Ecology – Buildings and Housing" and "Architecture – housing, building and urban planning", both of which are available in English.

##### 4.3.1 Urban Ecology – Buildings and Housing

The objectives of the Ministry's Action Plan for urban ecology "Urban Ecology – Buildings and Housing", from May 1995 are as follows:

- In collaboration with other ministries, and through legislation and regulation of building and housing, to contribute to resource savings and thereby also contribute to savings in operational expenditures.
- Through the establishment of norms and standards for building and housing, to contribute to avoiding or minimizing environmental loads and unhealthy conditions.
- To adapt environmental requirements so that the completed building can appear as the result of an optimal coordination of all the relevant requirements to the building trade.
- To assure that the building sector does not suffer unreasonably large economical burdens due to the implementation of environmental requirements.
- To encourage environmental awareness in the operation and management of buildings.
- To emphasize local conditions and local efforts in the



organization of the building and housing policies, as this offers the greatest impact of environmental measures.

- To ensure that an improved productivity in the building trade especially includes ecological products. This will give them better competitive conditions – also on an international level – compared with traditional building products.
- To stimulate the development, production and use of materials, constructions systems and buildings that live up to environmental requirements and thereby can replaces products that stain the environment.
- To gather knowledge and publish information concerning ecological solutions in the building trade through trails, research, analyses and development projects.
- To stimulate building export with ecological content.
- To work for the incorporation of aesthetic, architectural and quality requirements in environment friendly buildings and outdoor spaces, including the requirements aimed at good living conditions.

### 4.3.2 Follow-up on the Urban Ecology Action Plan

Follow-up on the Action Plan is already fully underway and the majority of Action Plan projects have reached completion. In this context, the Urban Renewal Project and Eco-House 99 are discussed in more detail in section 4.4.5. Also completed are the Action Plan's projects concerning review of the Ministry's legislation for ecology, a follow-up on the Measuring Committee's recommendations, the OECD project, the Ecological City and the green positive list.

The Ministry of Housing and Urban Affairs has entered into talks with the Confederation of Danish Industries and a number of building materials manufacturers and the Ministry of the Environment and Energy concerning strategies for environmental impact assessments and how the necessary coordination of the different systems might be achieved.

A strategy plan has been drawn up for the next generation of directives on noise pollution and sound resistance. A report has also been produced on the special sound resistance problems involved in the kind of light constructions that are increasingly favoured for apartment block buildings. Finally, a



booklet has been prepared on “Sound insulation against neighbouring noise pollution – what can be done?” as well as a folder called “Urban renewal and neighbouring noise pollution”.

Relaxation of the fire safety regulations in cases where wood is used as the construction material for multi-storey housing of a certain height is currently in preparation. The new regulations are expected to come into effect in mid-1999.

The 1995 Building Regulations and the 1998 Building Regulations for Small Dwellings contain a number of directives concerning energy-efficiency and the concept of total quality in constructions, but in the long term the aim is for the Regulations to become even ‘greener’. Building legislation is discussed in more detail in section 4.3.5.

In order to fulfil the Government’s Energy 21 objectives for new energy regulations in the Building Regulations due in the year 2005, the Ministry of Housing and Urban Affairs and the Danish Energy Agency have initiated a major fact-finding project, to be completed in 1999. The project addresses the consequences of tightening up regulations through the use of recognised and thoroughly tested solutions.

#### **Life-cycle economy**

The need to reduce the consumption of resources in residential properties has generated increased interest in the application of life-cycle economy in construction projects, a concept which takes into account the total cost not only of construction, but also of running the building. In extension of the existing guidelines on life-cycle economy, the Ministry of Housing and Urban Affairs has therefore carried out a development project which resulted in a model for calculating life-cycle economies.

The model enables the economic consequences of operation and construction that would result from the proposed technical solutions for a building to be compared with the economics of a standard reference building.

The model, produced as a computer program, requires only a few keystrokes by the user and has been released on diskette and CD-ROM in March 1998.



### 4.3.3 Architecture – housing, building and urban planning

The objectives in the Ministry's Architectural Policy Action Plan, "Architecture – housing, building and urban planning" for 1996 are as follows:

- In collaboration with other ministries, to exert a coordinated, goal-oriented effort to improve the general understanding of good architecture.
- Through legislation and regulation, to participate in the creation of a sound framework for good architecture.
- Through the establishment of standards, etc. for the building and housing sector, to participate in the improvement of architectural quality.
- To assure that architecture becomes a natural part of building product development, including the development of building materials.
- Through research, analysis and demonstration projects, to gather knowledge and pass on experience about good architecture.
- To promote architecture through goal-oriented trial and development efforts in the area of building and product development.
- To stimulate the export of Danish architecture.

### 4.3.4 Follow-up on the Architectural Policy Action Plan

In 1997, under the Ministry of Housing and Urban Affairs's Architectural Policy Action Plan a full evaluation was made of the Ministry's legislation from the perspective of architectural policy. The results of the evaluation have been presented in a report in autumn 1998.

In April 1997, in collaboration with Gammel Dok – the Danish Centre for Architecture, the Ministry of Housing and Urban Affairs set up the Architectural Policy Contact Forum, with the task of providing principal guidelines, consulting services and inspiration for the follow-up work.

Furthermore, as part of the follow-up on the Action Plan in 1997, a series of information and promotion activities have been organised, including the publishing of a collection of examples of high quality refurbishments of subsidised buildings from the 60s and 70s, together with an accompanying

lecture tour, aimed at informing decision-makers in Public housing unit boards about architectural quality in the extensive conversions and refurbishments currently taking place in the Public housing sector of the building industry.

Finally, planning is underway for a cooperation between the Minister of Housing and Building and the Minister of Culture on a series of activities relating to the issue of architectural policy. These activities will be launched in autumn 1998 and in 1999. In the interests of promoting increased transfer of experience between the different developers, the Danish Building Development Council (BUR) has set up three network groups to support state-subsidised housing developers, non-profit developers and private developers, respectively.

Other noteworthy elements in the Action Plan concerning building quality, would be, for example, the revision work to the Quality Assurance Circular, the drive for improved efficiency in building hand-over, differing contributions to the building defect funds, ongoing pilot-scheme construction projects and awards for building excellence.



*photo: Espen Jürgensen*



### 4.3.5 Building legislation

Danish building legislation consists of a Building Act and two sets of building regulations, one published in 1998 applying to single-family dwellings and weekend cottages, “Building Regulations for Small Dwellings” and the other set of regulations, “Building Regulations of 1 April 1995” – both of which are available in English.

The purpose of building legislation is to ensure sufficiently high standards of safety and health in constructions. This is achieved through statutory provisions for how buildings must be constructed and arranged.

Basically, the statutory provisions are intended to ensure:

- that buildings are satisfactory in terms of fire protection, safety and health
- that the developer counters unnecessary consumption of energy and raw materials in the building
- that certain neighbouring property interests in the form of rules applying to boundaries to neighbouring properties, height requirements, the size of the building in relation to the grounds are observed.

### Technical requirements

While the Building Act prescribes the principal and general requirements applying to buildings and building quality, the two sets of building regulations provide a more detailed description of the minimum requirements for the construction and arrangement of buildings.

The following principal technical requirements are prescribed by the 2 sets of building regulations:

#### *1. The position and arrangement of buildings*

In addition to the requirements to safeguard the rights of residents of neighbouring properties – e.g. 2.5 m from boundary with neighbouring properties, maximum plot ratio, height of buildings, etc. – a number of requirements are specified for the arrangement of buildings – e.g. level access to buildings, guidelines for the construction of corridors and stairs,

the height of habitable rooms, sanitary accommodation and kitchens. The requirements may vary for residential and commercial buildings.

*2. Housing suitable for the disabled*

A building must be fit for use by everyone, including persons with restricted mobility or wheelchair users.

*3. Sound construction*

Building constructions must be of such dimensions that they are able to withstand normally occurring static and dynamic impacts. The precise requirements for building dimensions are prescribed in conformity with Danish and European norms and standards, as referred to in the Building Regulations.

*4. Fire protection*

The most important means of achieving the desired standard of fire protection is achieved by fire-separating structures and fire compartments as well as the provision of escape routes and rescue access. Furthermore, a number of fire protection requirements are prescribed with respect to technical specifications for installations, construction elements and materials.

*5. Indoor climate*

The health issue concerns the comfort and well-being of normal, healthy individuals as well as those more susceptible to contamination of the indoor climate, e.g. people with allergies. The regulations cover the use of asbestos, mineral wool and formaldehyde in building materials, the extraction of nitrogen oxide flue gases from stoves, the air-tight sealing of building constructions in contact with the ground to prevent the penetration of Radon gas, etc. Specific ventilation rates are also indicated for different types of rooms.

*6. Energy efficiency*

The Building Regulations set out 3 different methods for achieving the desired reduction of energy consumption and specifies the maximum degree of flexibility that may be exercised in the design of the building.



### 7. Chimney cleaning

City and district councils are responsible for ensuring that council residents can obtain chimney cleaning services as required by law.

### The official responsibilities of the developer

Both in the case of new building works and major conversions of existing buildings, the developer is required to submit an application in writing to the city or district council for permission to carry out the intended building project.

It is the responsibility of the developer to ensure that the intended building conforms to the requirements of the law.

### Enforcing the Law

As the supervising authority, the city or district council has the duty of ensuring that building legislation is observed. The council is therefore entitled to request whatever information it deems necessary to the lawfulness of a building project.

If a council becomes aware of conditions that are in breach of the law and the Building Regulations, it is required to request that the developer do whatever necessary to remedy such conditions.

## 4.4 Micro-economics initiatives

Micro-economics initiatives aim to provide enterprises with sound market structures in which to operate. This is, for example, achieved by channelling public demand and structuring regulatory systems in such a way that building and housing sector development and terms of competition may be improved as much as possible. The improvement of market structures is, for example, achieved through a goal-oriented programme of research, development and dissemination, with the aim of increasing the industry's knowledge base and competitive power.

### 4.4.1 Building Policy Forum

Ongoing dialogue with the parties of the building industry is a key process in the Government's building policy work. The cooperation with the industry has been formalised through the establishment of the Building Policy Forum as well as widely representative user panels on important business policy areas such as economic trends in the building industry,

international conditions and in experimentation, research and development. Representatives from the business community play a central role in these user panels.

Over the next few years, the Government will be concentrating its building policy initiatives on the continual and cohesive re-channelling of market structures – particularly with regard to consumer demand. In this process, individual developers will take on a more central role in developments in the industry. And in general there will be promotion of new, closer and more effective ways of cooperating between the individual players in the building industry.

#### **4.4.2 Building Policy Report '97**

In November 1997, the Minister of Housing and Urban Affairs presented the government's building policy report. The overall aim is to enhance building industry quality and productivity – both in terms of products and processes as well as new construction projects and refurbishments. This will benefit consumers in the form of better and cheaper buildings and will also benefit the construction firms, whose competitiveness will be improved.

The Government also believes that re-shaping the market structures in the building industry will, in the long-term, create a basis for a more stable development of activities in the building sector. At the same time, the building industry will be better able to attract and keep a qualified workforce.

#### **4.4.3 Building Policy Action Plan '98**

Building Policy Action Plan '98 presents a total of 33 action-oriented initiatives aimed at improving the building industry's micro-economy. The initiatives are concentrated on the following five action areas:

- Quality in the building industry
- Productivity and cooperation in the building industry
- Improving building industry activity (seasonal adjustment and trend monitoring)



- International competitiveness in the building industry
- Research and exploitation of expertise in the building industry

The Ministry of Housing and Urban Affairs will therefore concentrate its future building policy drive on 13 concrete building policy initiatives, with particular emphasis on quality development and productivity in the building industry. The Ministry believes that in these areas in particular it will be possible to achieve good micro-economic results even in the short term.

### 4.4.4 Current projects

#### **Process and product development in the building industry**

In collaboration with the Agency for Development of Trade and Industry, the Ministry of Housing and Urban Affairs is in the process of completing its initiative for “Process and Product Development in the Building Industry”. The aim is to market the building sector’s common fund of expertise in process and product development and in this way to regenerate the industry and increase exports.

12 building projects were initiated in 1998, and these will result in just over 600 new dwellings. Further building projects, amounting to 900 dwellings are being planned for up to the year 2000 (a total of 1500 dwellings).

#### **ECO-HOUSE 99**

One of the aims in the Minister of Building and Housing’s Action Plan for Urban Ecology, “Urban Ecology, Buildings and Housing”, is the construction of show-case buildings to demonstrate a whole new innovative approach to building design based on ecological and architectural considerations.

Following a competition, two projects are ready for start-up, with occupants set to move in at the end of 1998. A special computer program has been prepared for evaluating the buildings, just as their planning has also been processed using the computer model for life-cycle economy.



**The Urban Renewal Project**

The Urban Renewal Project is a 4-year development project which was launched by the Ministry of Housing and Urban Affairs in 1995 and which will be completed in spring 1999 with four themed seminars and a closing seminar, which will include a presentation of the results from 100 projects promoting new products, new processes, ecology and the export industry.

The aim of the Urban Renewal Project is to contribute to a clear industry-based reinforcement of the urban renewal sector and the enhanced efficiency of the general process of renewal, not least to promote the sector's export potential. An important element here has been to stimulate the building trade to launch activities to enhance the flexibility of individual companies in the industry.

Regular reports and factsheets are being issued on the completed projects, with a total 24 reports and 22 factsheets released to date. Information is also available from the Urban Renewal Project web site:  
<http://www.byggecentrum.dk/projektrenovering>

In view of the substantial funds allocated to the Urban Renewal Project (DKK 170 million p. a. in the period 1995-1997), the Project is to be regarded as one of the most substantial micro-economic drives in recent years.

**Project House**

Project House aims to give higher priority to the use of industrially produced components in a joint venture between architects, skilled workers and manufacturers. The ultimate aim is for individualised, highly functional buildings of sound architectural design based on knowledge-intensive products with high added value.

Another aim of Project House is to improve the building industry's market structures and secure the necessary basis of common expertise for the development work. A pilot project was completed in April 1998 with the report "Project House – double the value at half the price".



### 4.5 Information Technology initiatives

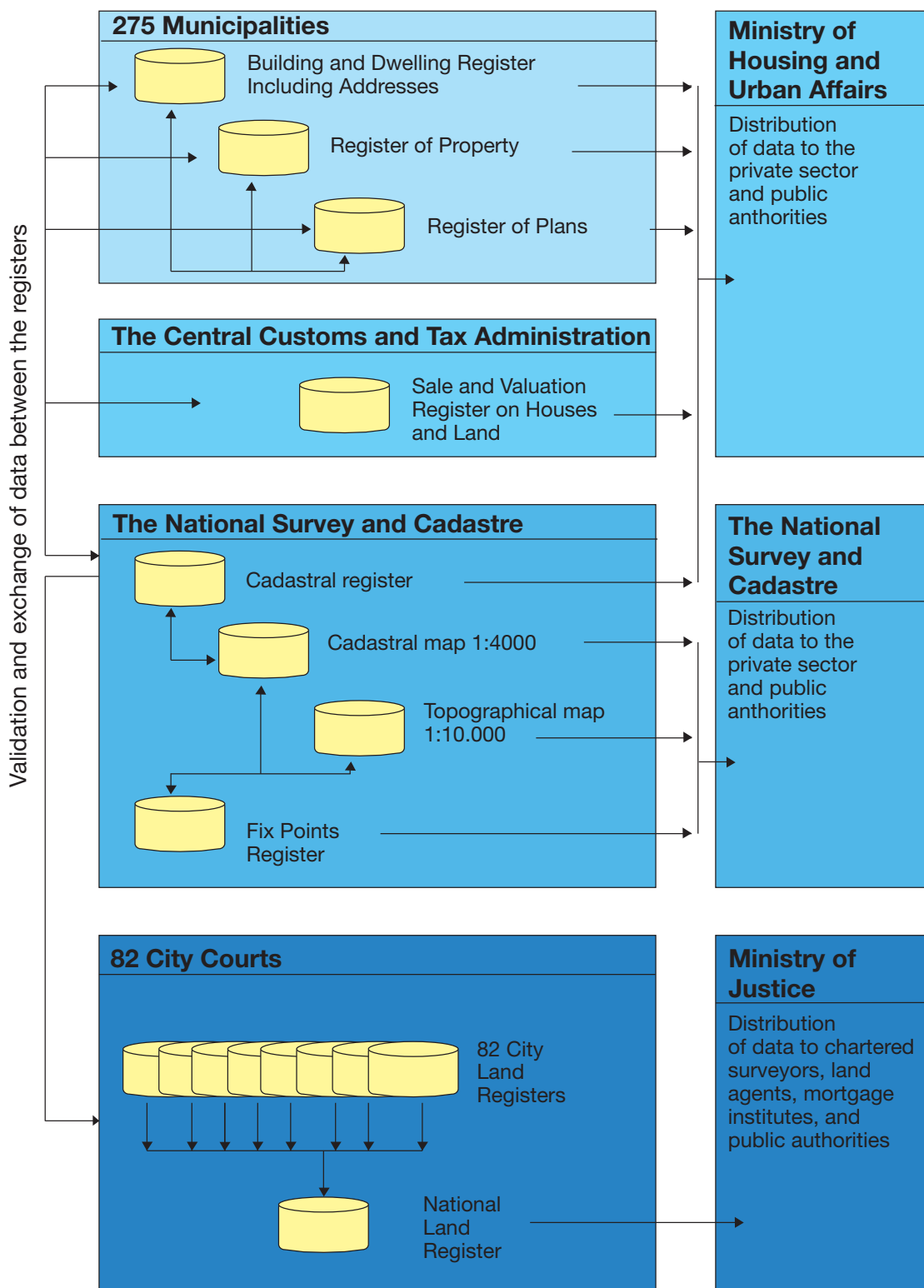
With its Information Technology initiative, the Ministry of Housing and Urban Affairs is launching drives to help effect a means of linking and exchanging data on property and geographical distribution with data on people and companies. Without violating the respect for privacy and dataprotection principles, the data will be made available to the general public, as well as to the authorities and private companies.

#### 4.5.1 The coordination of information

The drive over many years to coordinate information has meant that a cohesive system exists in Denmark for recording property data. The data include information about property and housing conditions, ownership structures, public land assessment and taxation structures, land register relationships and land registration rights. The records are associated with a series of management and administration tasks handled by the government and local authorities.

The Ministry of Housing and Urban Affairs is responsible for the principal coordination of property data. In order to effect this, the Ministry has appointed a permanent committee of representatives from the ministries involved and local council organisations. The purpose of the Coordination Committee is the mutual exchange of information between members of the Committee concerning proposed and ongoing development activities, as well as discussion and recommendations concerning future organisation of administrative procedures for the updating, distribution and pricing of data from the various records and registers.

The coordination system has helped to create key identifiers that enable use of data from the various registers and records. Property data are used in a number of contexts in administration, including public land assessment, population and housing censuses, disbursements of rent subsidies, surveys and planning, and so forth. In addition, property data are sold to the private sector, including estate agents, lawyers, mortgage banks and financial institutions, insurance companies and utilities (water, heating, electricity, gas and telephone, etc) by means of access to databases or mass data extraction.





### **Property data registers**

The following presents the most important property data records and registers, all of which are currently available in electronic form, apart from the Land Registration Register, which is, however, due to be computerised by the end of the year 2000. A series of administrative procedures have been instituted to deal with the validation and exchange of data between the registers by means of daily electronic transfer. The use of global object-definitions and identifications in the registers ensure the consistency of the shared data. New data are updated manually or performed by job routines linked to the registers.

### **The land registry system**

The land registry system consists of the Land Register and the Cadastral Map, which was issued in digital form at the end of 1997. The Land Register contains information about land register designations, land area, property titles, records concerning compulsory use of land for agriculture and forestry, and case references. The Cadastral Map, together with dimensional data, forms the legal basis for official determination of property boundaries and thereby the rights associated with real property. Land Register data are updated at the instigation of private chartered surveyors.

### **The Building and Dwelling Register**

The Building and Dwelling Register contains information about building and housing conditions, including data on building materials, residential and commercial building area, installations, how properties are used and other data on the characteristics of buildings and residential/commercial units. The Register is updated by the local authorities on the basis of data received from the owners of the properties, e.g. in connection with the completion of building projects or on change of ownership.

### **The joint local-authority Register of Property**

The Register of Property contains information about the current and previous owners of real property and information about property taxes and land assessments. The records are updated by the local tax and land assessment authorities in connection with the public land assessments (conducted each year from 1998) and individually on change of ownership.

**Planning records**

Planning records contain information about local authority and district planning. The records are updated by the local authorities in connection with local authority and district planning.

**Sales and Valuation Register on Houses and Land**

The Register contains data on selling and assessment. The Register is updated by the Ministry of Taxation, Central Customs and Tax Administration in connection with the sale of properties and in connection with the annual public land assessments.

**The Land Register**

The Land Register is a public register of documents concerning titles to real and personal property or personal assets. Updating is carried out at each city court upon applications for registration of charges, encumbrances, claims, land area and any records on the property. A number of legal effects are associated with registration, primarily those relating to third parties.

**Development drives**

In recent years, as a result of the Government's IT-action plans, considerable attention has been focused on improved exploitation of data held in the public registers. One issue here has been a call for public authorities to make a one-off requisition for information from citizens and companies. The data collection can then be recycled. In connection with the Action Plan, another Plan has been proposed for the modernisation of the Building and Dwelling Register. Similarly there is the aim of establishing a universal data model for the entire property sector. Attention is also being focused on making data held in public registers more readily accessible by the private and public sector through the creation of a new distribution system. In December 1997, a working group presented a survey of different systems for the supply and sale of public data to other public authorities, private companies and citizens.

As a means of promoting better use of societal investments in registers and digital maps, the Ministry of Housing and Urban Affairs, in cooperation with the National Survey and Cadastre



and local authorities, is seeking to develop a product containing national address records with data on geographical location in the Building and Dwelling Register and the joint local authority Register of Property.

A large-scale project comprising the districts of Funen has now been completed. The project served to demonstrate the feasibility of establishing the geographical location of addresses by cross-referencing address records from the registers with coordinates for addresses in technical maps.

### 4.6 International initiatives

One of the international initiatives is the aim to reformulate the Ministry's export promotion drive. There is a need to improve the export of systems and information exchange concerning "Danish solutions" in the building trade in order to champion Denmark as a European catalyst for quality drives in the building sector. Another sub-objective is for the Ministry to give new impetus to the campaign to develop an international policy and knowledge network for issues concerning urban affairs, building and housing.

#### 4.6.1 International work and projects

##### The European Union

The harmonisation of housing, building and urban policies is not a unilateral process, and indeed, EU regulation and the transfer of experience taking place in various sectors under the auspices of the EU are having an increasing impact on Denmark's building and housing sector. As a result of the creation of the Single Market, the building industry is, for example, now governed by European directives on tendering. The work of establishing a single market for building materials is now also well underway and the Ministry of Housing and Urban Affairs is closely following EU research programmes.

Added to this are the issues covered by the Amsterdam Treaty which are set to affect the housing, building and urban affairs sector. Such issues include a declaration concerning special provisions for the needs of the disabled in the adoption of regulations for the Single Market, with a cross-sectoral call for integration of the environment in sectorial policies.

With regard to urban affairs policies, the Commission has identified the need for an in-depth debate at EU-level on the *increasing social, economic and environmental problems in urban areas*. At the same time, the Commission has found that measures instituted so far to deal with urban development have been random and uncoordinated. The Commission has therefore stated that it will be necessary to examine the options for improving urban development and enhance the efficiency of current urban affairs programmes in the Union as a whole.

#### **European building and housing exhibition in 2001, Malmö**

A building and housing exhibition entitled Bo01 CITY OF TOMORROW, is being planned for the year 2001 and will be held in Malmö, in cooperation with the Swedish Government, Denmark, the European Commission and other EU Member States. The exhibition will comprise a permanent new city area close to Malmö city centre, as well as a temporary area.

#### **Aid to Eastern and Central Europe**

One of the main elements in the Ministry of Housing and Urban Affairs's collaborative activities with countries in Central and Eastern Europe is the implementation of sectorial programmes for the building and housing in the Baltic countries. Through the period 1996-1999, two sectorial environment programmes are being conducted in Estonia, Latvia and Lithuania, with a sectorial programme in Lithuania through 1998-2000 as part of the intersectorial environmental drive. The programmes are intended to aid the reduction of energy consumption in buildings (primarily residential) and are organised as programme agreements between the Ministry of Housing and Urban Affairs and the responsible authorities in the recipient countries. Grants of a total DKK 32.5 million have been awarded to the programmes in the period 1996-2000.

#### **4.6.2 The Construction Products Directive**

The Construction Products Directive – a directive concerning mutual harmonisation of Member State laws and administrative provisions regarding materials intended for construction – was adopted by the Council in December 1988 and formally entered into effect in the Member States in June 1991.



The purpose of the Directive is to ensure the free movement of construction products in the Single Market, i.e. to remove all technical trade barriers to allow construction products to be traded and used freely in all EU countries.

The Directive is a framework directive and still requires the preparation of technical specifications, i.e. harmonising standards and European technical approvals for construction products. The preparation of technical specifications is handled by the European standardisation bodies CEN/CENELEC and EOTA.

The provisions of the Directive specify requirements for products that are manufactured to form a permanent part of structures. The fundamental regulations are subdivided into the following six aspects:

1. Mechanical strength and stability
2. Fire safety
3. Hygiene, health and environment
4. Safety of use
5. Sound nuisance
6. Energy savings and heat retention

The fundamental requirements have been formulated and described in technical terms in 6 “base” documents. The primary aim of the base documents is to establish the correlation between the fundamental requirements in the Directive and the mandates issued by the Commission to the standardisation bodies for the purposes of producing harmonised standards (CEN/CENELEC) or guidelines for European technical approvals (EOTA).

#### **Certification of compliance**

According to the Directive, certification must be made to document that a construction product complies with the requirements prescribed by a harmonised standard or a European technical approval. Responsibility for certification rests with each individual manufacturer. Certification of compliance also forms the basis for CE-marking.



The manufacturer is required at all times to have a system for production monitoring at the plant. For some products, there will also be requirements concerning the use of a testing laboratory supplementary to production monitoring for first-time testing of products or a certification body to certify compliance with the standard of the products themselves or the company's production monitoring. This will depend on the product's impact on, for example, safety and health. The certification level is defined by the Member States in cooperation with the Commission and is indicated in the harmonised standards and European technical approvals.

### **CE-marking**

In accordance with the Construction Products Directive, construction products may be CE-marked when they have been certified as being in compliance with a harmonised standard or a European technical approval. CE-marking means that without further testing, the product may be marketed and traded in the Single Market.

### **Implementation of the Construction Products Directive**

According to the Commission, the issue of mandates, i.e. the requisitioning of standards and guidelines for European technical approvals is to be concluded in 1998. With this, the main framework for the Single Market for Construction Products will have been fully implemented by the Commission and the Member States, and responsibility for completion of the necessary standards and technical approvals will then rest with the standardisation and approvals bodies CEN/CENELEC and EOTA.

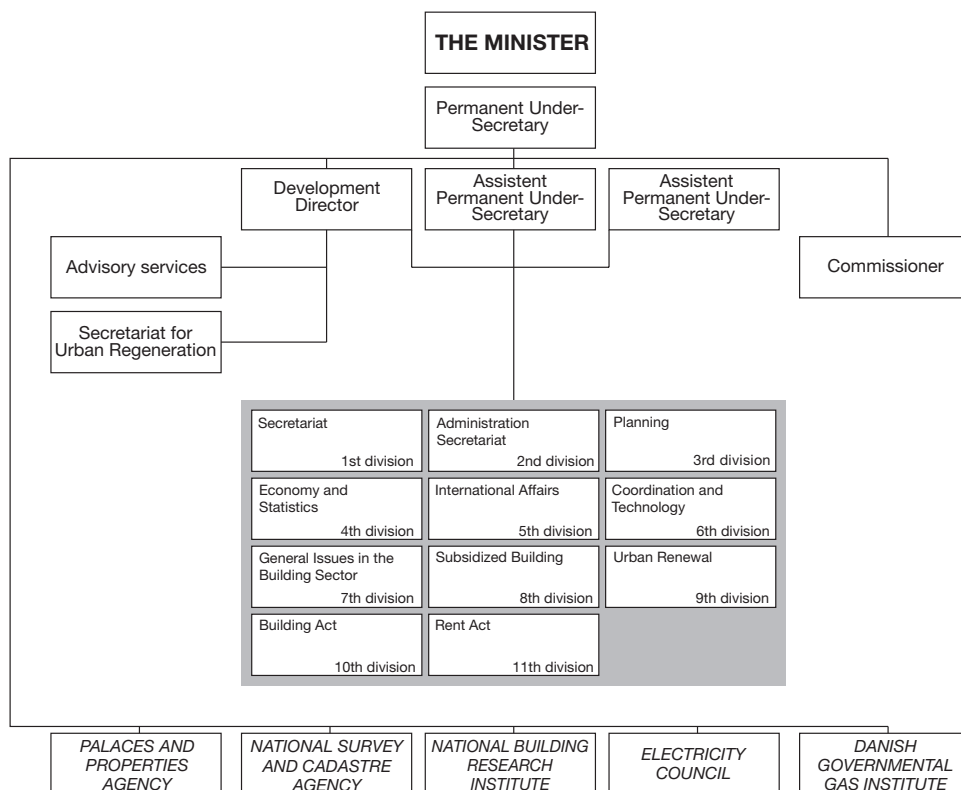
It is expected that the first harmonised standards will become available during the course of 1999. At present, a European technical approval has been issued and this means that the first CE-marked construction product has now appeared.

## 5. Organisation chart

### The offices of the Ministry of Housing and Urban Affairs

The Ministry of Housing and Urban Affairs handles issues relating to building, housing and urban affairs matters. The Ministry deals with its ministerial services, principal management and planning functions, as well as legislation concerning building and housing conditions.

Through the Palaces and Properties Agency, the Ministry of Housing and Urban Affairs also handles the administration of premises for Central Government and royal palaces and gardens. Through the agencies of the National Survey and Cadastre, the Ministry handles the surveying and production of land and maritime maps and the Land Register and land surveyance authorities. Research and development work on building and construction takes place at the Danish Building Research Institute. Finally, through the agencies of the Electricity Council and the Danish Governmental Gas Institute, the Ministry handles regulation, monitoring and approval work concerning electricity and gas.





## 6. Building and Housing Statistics

### 1. Introduction

Table 1.1. The Danish economy

1,000 mill DKK	1980	1985	1990	1995	1998
GDP	374	615	825	1,014	1,168
Exports of goods and services	122	226	319	358	416
Imports of goods and services	126	223	254	316	391
Balance of goods and services	-4.1	-0.5	45.9	45.4	21.6
Current account of balance of payments	-13.4	-28.4	8.2	10.8	-13.5
Current account in pct of GDP	-3.6	-4.7	1.0	1.1	-1.2
Net foreign debt at end of year	99	243	282	266	282
GDP at factor cost	316	520	712	875	1,000
Construction costs in pct of GDP at factor cost	7.7	5.9	5.2	4.6	5.5
Gross rent in pct of GDP at factor cost	12.5	12.2	12.6	12.3	11.8
Consumer price index	100	146.4	177.4	195.6	207.8
1,000 persons					
Population	5,122	5,111	5,135	5,216	5,295
Labour force	2,626	2,834	2,908	2,896	2,887
Employment	2,442	2,598	2,674	2,617	2,705
- private sector	1,666	1,774	1,859	1,797	1,887
- public sector	776	824	815	769	818
Construction industry	144	140	144	139	141
Unemployment	184	235	234	279	183
in pct	7.0	9.1	9.5	10.3	6.3

### 2. The Building and Housing Sector

#### The Housing Situation

Table 2.1 Dwellings by type of building

1,000 dwellings	1980	1985	1990	1995	1998
Farm houses	165	161	156	150	140
One-family houses (detached)	878	919	959	975	999
One-family houses (other)	154	205	266	299	308
Multi-dwelling houses	891	899	922	948	959
Other dwellings	21	44	50	54	55
Total	2,109	2,228	2,353	2,427	2,461
Occupants per dwelling	2.33	2.24	2.14	2.11	2.10
Sqm per occupant	46	48	50	51	51

Table 2.2 Dwellings by type of tenure

<i>1,000 dwellings</i>	1980	1985	1990	1995	1998
Owner-occupied	1,099	1,181	1,217	1,224	1,260
of which:					
Detached houses	780	826	853	866	899
Freehold flats	65	95	85	102	112
Rented dwellings	880	935	993	1,076	1,105
of which:					
Private <sup>1)</sup>	466	443	432	454	457
Public housing	304	356	395	445	466
Co-operative dwellings <sup>2)</sup>	45	70	105	124	146
Government housing	65	66	61	53	35
Not occupied, etc. <sup>3)</sup>	131	122	143	126	96
Total	2,109	2,228	2,353	2,427	2,461

1) Including rented freehold flats and detached houses.

2) Figures from 1980 and 1985 are estimated, statistical surveys of co-operative dwellings are inaccurate before 1/1/1988.

3) Including not stated, corresponding to 5,497 dwellings in 1998.

Table 2.3 Condition of the dwelling stock

<i>1,000 dwellings</i>	1980	1985	1990	1995	1998
Good dwellings	1,685	1,851	2,027	2,170	2,242
-built before 1950	686	725	763	822	852
Dwellings lacking basic amenities <sup>1)</sup>	424	377	326	256	219
-built before 1950	381	333	288	227	193
Dwellings with no bath	372	318	271	218	187
Dwellings with no heating <sup>2)</sup>	199	171	128	85	57
Dwellings with no wc	124	101	85	70	59
Total	2,109	2,228	2,353	2,427	2,461
- built before 1950	1,068	1,059	1,052	1,049	1,045

1) Basic amenities: Bath, wc and heating.

2) Dwellings with no district or central heating and one-family houses with no electrical heating

Figure 2.1 Floor area per occupant 1997

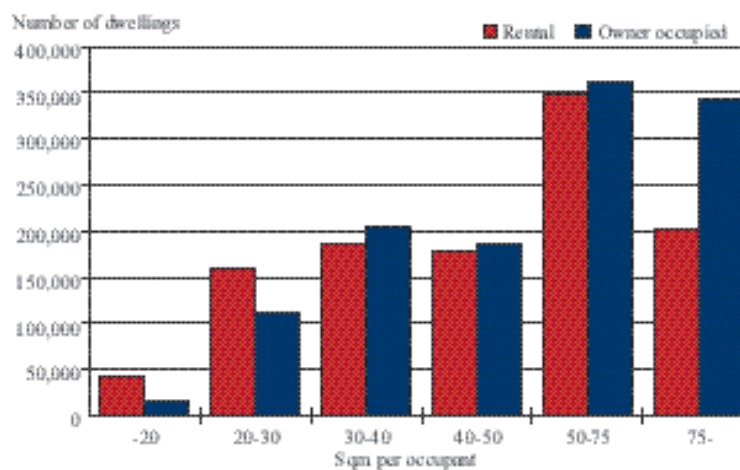
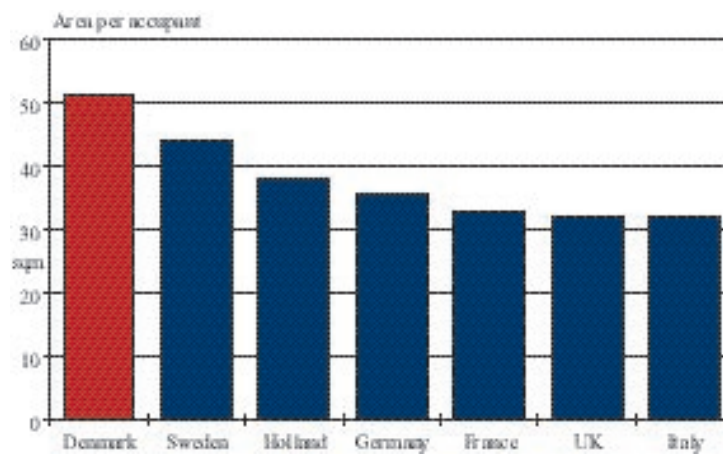


Figure 2.2 Average floor area per occupant by country 1991



## Construction

Table 2.4 Gross investments in construction 1980-1997

1,000 mill DKK (current prices)	1980	1985	1990	1995	1997
House building	19.8	26.5	31.2	38.9	47.3
- hereof reconditioning of housing	-	-	12.8	21.6	20.9
Building exc. house building	15.2	19.5	26.5	24.8	34.6
Civil engineering	9.1	15.3	24.0	23.7	28.7

Figure 2.3 Construction sector employment

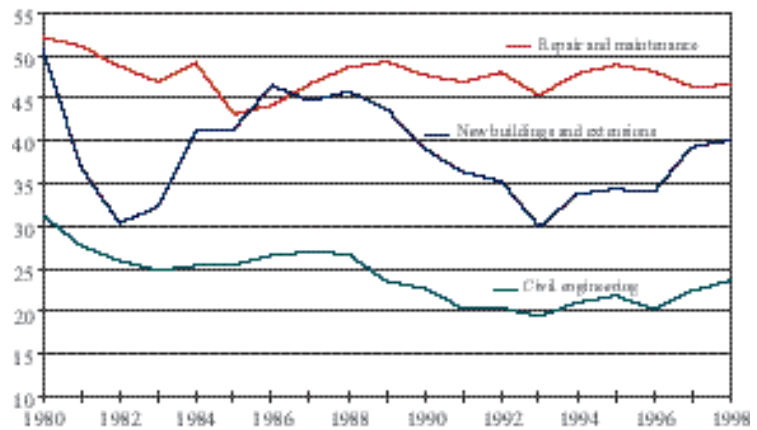


Figure 2.4 Buildings started 1980-1998

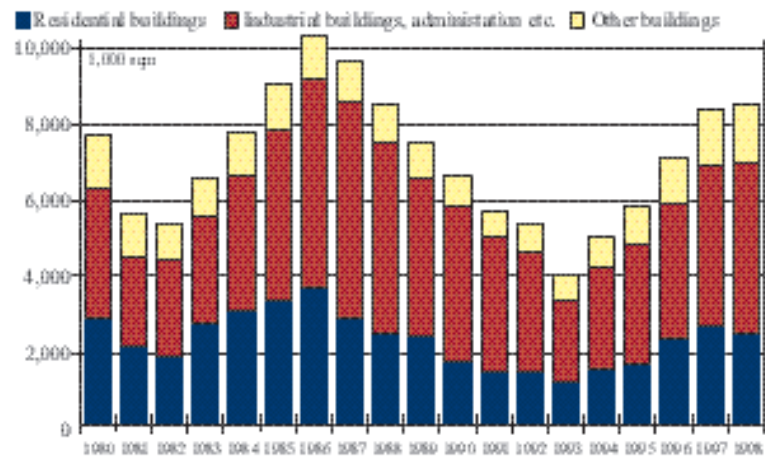


Figure 2.5 Number of dwellings completed 1980-1998

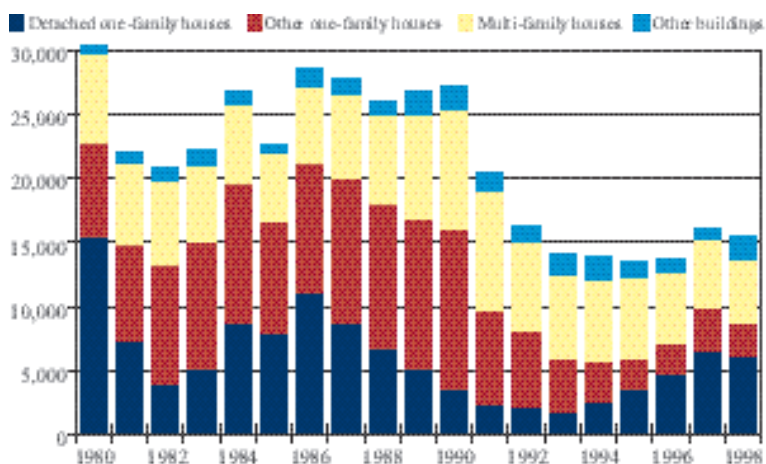


Figure 2.6 Number of dwellings started 1983-1998

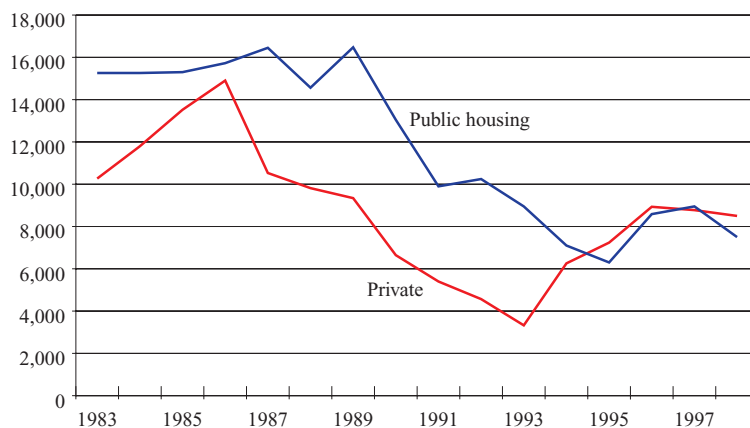


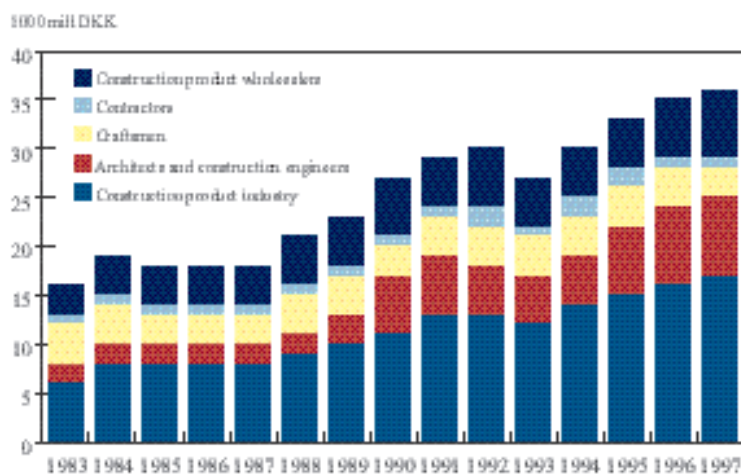
Table 2.5 Acquisition costs for subsidised housing construction

DKK per sqm	1993	1994	1995	1996	1997	1998
Public housing:						
- family	9,100	9,400	9,200	9,500	10,300	10,800
- elderly	9,100	9,900	10,300	10,900	11,300	11,800
- youth	9,600	10,800	10,200	10,700	10,800	11,700
Co-operative housing	8,900	9,200	9,300	9,500	9,900	10,100

*Table 2.6 Average refurbishment costs of urban renewal  
1992-1998 (budget figures. 1998-prices)*

	1992	1993	1994	1995	1996	1997	1998
Dwellings	5,253	7,693	5,566	5,574	2,894	3,458	1,931
Size (1,000 sqm)	382	547	404	366	202	258	146
Refurb. cost (million DKK)	1,916	2,672	2,313	1,954	1,185	1,374	725
Cost per dwelling (1,000 DKK)	360	350	420	350	410	400	380
Cost per sqm (DKK) 5,000	4,900	5,700	5,300	5,900	5,300	5,000	

*Figure 2.7 Danish export sales in the building sector 1983-1997*





*Table 2.7 Exports of construction products 1996-1997, according to country*

<i>Million DKK in current prices</i>	1996	Change in pct compared to previous year	1997	Change in pct compared to previous year
Total	15,512	6.7	16,879	8.8
France, Monaco	550	-7.9	666	21.1
Belgium, Luxembourg	350	-7.2	420	20.0
Netherlands	756	-3.6	823	8.9
Germany	6,786	3.2	6,493	-4.3
Italy	267	5.5	362	35.6
Great Britain	1,025	8.4	1,244	21.4
Norway	817	24.2	960	17.5
Sweden	1,449	21.1	1,772	22.3
Finland	288	35.2	390	35.4
Baltic's	91	42.2	140	53.8
Poland	277	12.6	354	27.8
Czech Rep	94	11.9	113	20.2
Slovakia	28	12.0	24	-14.3
Hungary	57	1.8	76	33.3
Russia	91	18.2	109	19.8
Other	2,586	8.2	2,933	13.4

### 3. Housing economy

*Figure 3.1 Effective yield of 30-year bonds 1980-1998*

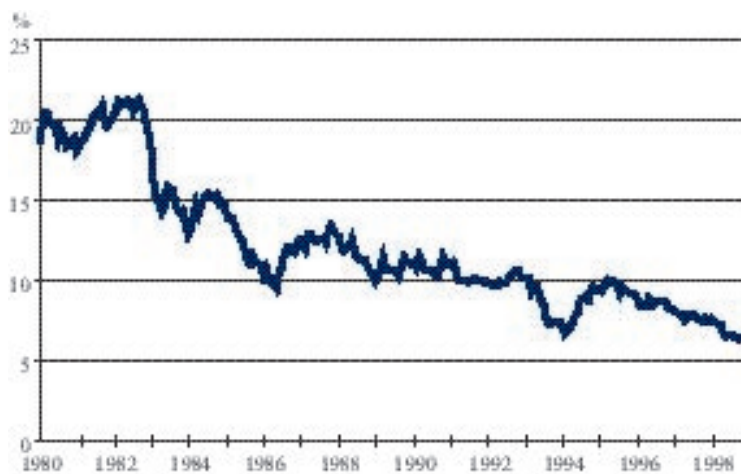


Table 3.1 Effective yield of bonds, end-year

<i>Pct. p.a.</i>	1993	1994	1995	1996	1997	1998
30-year bonds	6.6	9.7	8.4	7.9	7.3	6.3
Index-linked bonds	2.5	3.9	3.5	3.1	2.8	2.5

Table 3.2 Lending activities etc. of the mortgage credit sector

	1980	1985	1990	1995	1997
<i>Net new loans, million DKK</i>					
Rental homes	2,015	8,939	13,585	10,537	12,611
- hereof newly built	1,455	6,161	10,793	4,168	5,214
Owner-occupied homes	14,041	44,744	10,434	31,204	53,695
- hereof newly built	6,887	10,745	2,966	1,332	5,060
Farms etc.	4,948	6,795	4,336	4,970	7,061
- hereof newly built	7	37	165	44	160
Manual and manufacturing industries	1,167	6,963	2,124	1,634	2,602
- hereof newly built	268	1,256	625	409	-91
Offices and shops <sup>1</sup>	1,990	7,391	4,968	1,844	4,616
- hereof newly built	913	1,895	2,314	35	-51
Other properties <sup>2</sup>	864	574	768	599	1,293
- hereof newly built	442	417	679	99	303
Total	25,025	75,407	35,990	50,788	81,877
- hereof newly built	9,972	20,511	17,543	6,087	10,594
<i>Volume of bonds in circulation (1,000 mill DKK)<sup>3</sup></i>					
Mortgage bank bonds	335.6	540.4	762.8	904.3	1,013.2
Government bonds	90.8	359.8	405.6	649.6	667.5
Other	22.3	41.0	55.7	91.6	112.6
Total	448.7	941.2	1,224.1	1,645.5	1,793.3
No. of loans, (1,000 units)	3,088	3,332	3,425	2,393	2,140

Annotation: New loans are made up to cash value.

1) Incl. hotels etc., and water, gas, heating and electricity plants

2) Property for public use

3) Nominal value, end-year

Source: Association of Danish Mortgage Banks

Table 3.3 Sales of real property 1980-1997

	1980	1985	1990	1995	1997
Total sales	11,248	160,627	121,534	126,209	133,119
Agricultural holdings with buildings	3,309	6,540	6,125	7,246	6,626
One-family houses	53,874	74,328	61,125	61,195	59,601
Freehold flats	—	25,378	17,477	19,890	24,072
Other sales	40,351	37,141	30,405	31,147	42,820
Building sites, under 2,000 sqm	13,118	14,070	3,839	5,046	7,490
Average price per property (1,000 DKK)					
One-family houses	511	560	555	656	803
Freehold flats	-	429	438	474	536
Average price per sqm					
Building sites, under 2,000 sqm	118	137	105	148	129

Table 3.4 Property values 1981-1998

Million DKK	1981	1986	1992	1996	1998
Total property values	802	1,462	1,698	1,919	2,161
One family houses	326	594	572	714	851
2 and 3 family houses	11	21	20	23	25
Multi-dwellings and other	115	243	388	398	422
Freehold flats	30	66	71	74	83
Week-end cabins	30	51	52	62	72
Factories	33	65	106	104	111
Agricultural properties	105	158	171	190	210
Other properties	150	267	318	354	386

Figure 3.2 Real cash prices and sales prices of one-family houses 1980 - 1998

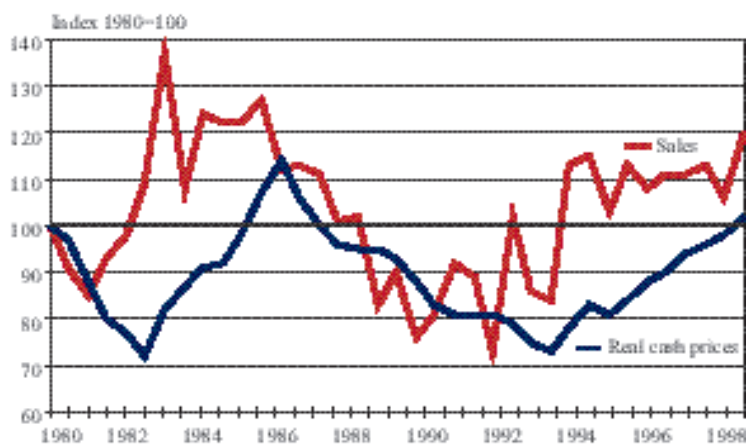


Figure 3.3 Housing, electricity and heating expenditure as share of total consumption. According to income levels. 1995

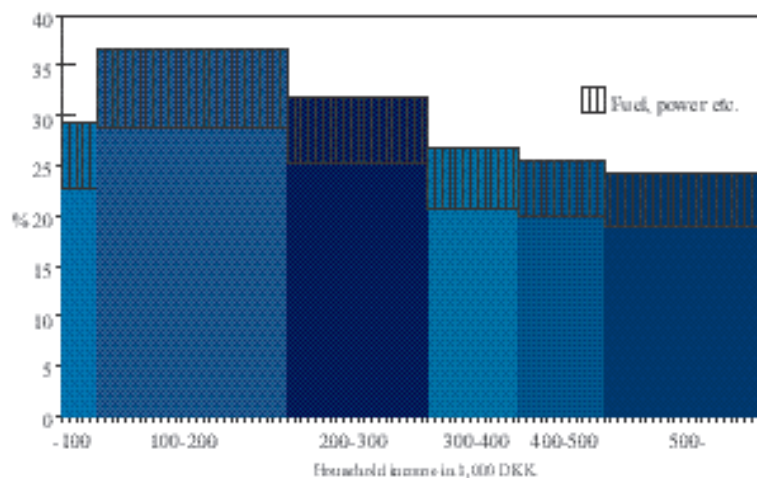


Table 3.5 Average annual rent (DKK per sqm) 1981-1995

DKK per sqm	1981	1985	1991	1995
Private	128	198	350	426
- built before 1980	128	194	317	397
Public	180	286	416	445
- built before 1980	180	274	385	412
Total	149	243	387	437
- built before 1980	149	232	354	405

Table 3.6 Individual housing benefits 1980-1998

	1980	1985	1990	1995	1998
<u>Rent allowance</u>					
Subsidies (million DKK)	1,138	2,204	4,016	5,864	6,458
Households (1,000 units)	178.3	215.9	273.0	329.7	332.6
Subsidies per household (DKK per year)	6,250	10,210	14,830	18,160	19,850
<u>Rent subsidy</u>					
Subsidies (million DKK)	353	771	1,393	1,776	1,796
Households (1,000 units)	72.3	106.2	140.1	176.0	165.9
Subsidies per household (DKK per year)	5,370	7,720	10,560	11,000	11,780

