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# THE DEVELOPMENT OF NON-SUBSIDIZED HOUSING CONSTRUCTION IN THE NETHERLANDS

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## 1 Introduction

In recent years there has been an increase in the number of non-subsidized dwellings built in the Netherlands<sup>1</sup>. During the period 1983-89 the number of such dwellings built per year increased from 6600 to 48,400. By 1989 43.5% of the total housing production consisted of non-subsidized housing (see Table 1). This increase in non-subsidized housing construction was accompanied by changes in government policy. In general, the government has become less involved in housing construction, as a result of which the task of providing new housing is increasingly being left to the private sector. The aim of the government is to maintain the proportion of non-subsidized housing in total new housing construction at least at its present level.

The influence of government policy on the development of non-subsidized housing construction is limited. External influences, like changes in mortgage interest rates, play an important role. Constructing a sufficient number of new homes therefore depends largely on economic developments. At the same time, government planning policy is aimed at promoting urbanization. It remains to be seen whether the emphasis in housing policy on the construction of non-subsidized dwellings is compatible with a planning policy that stresses the building of new (non-subsidized) houses within or on the periphery of existing urban areas.

The OTB Research Institute for Policy Sciences and Technology at the Delft University of Technology has carried out a study into developments in non-subsidized housing construction and their consequences for physical planning and housing. The study was carried out in two stages. A quantitative study was made into the background to the increase in the construction of non-subsidized dwellings (Conijn, 1989). The second stage considered the consequences of the increase in the building of non-subsidized dwellings for physical planning and housing (Boelhouwer and Van der Heijden, 1989).

The information required for the second part of our study was largely obtained through a literature study and discussions with representatives of

building companies, investors, the provinces and municipalities. During these discussions consideration was given to the present and expected future development of non-subsidized housing. The starting-point in these discussions was the policy proposed by the government with respect to physical planning and housing for the coming decade.

Based on the results of these studies, we shall examine the following questions:

- Which factors influenced the development of non-subsidized housing between 1970 and 1987?
- What are the consequences for housing and physical planning of the emphasis on non-subsidized housing construction?

Firstly, we shall discuss government policy with respect to housing in general and non-subsidized housing construction in particular. Next, we shall outline and analyse the development of non-subsidized housing construction in the Netherlands between 1970 and 1987. Finally, we shall discuss a number of bottlenecks which currently exist and the conditions necessary for the further development of non-subsidized housing.

## **2 Government policy**

The building of new homes in the Netherlands depends largely on government policy. Various areas of government policy, which each have their own objectives and means of pursuing these objectives, influence new housing construction. As a result, the levels of supply and demand in the housing market are not purely market determined. The government creates a framework and, within this, housing is realized by the private sector.

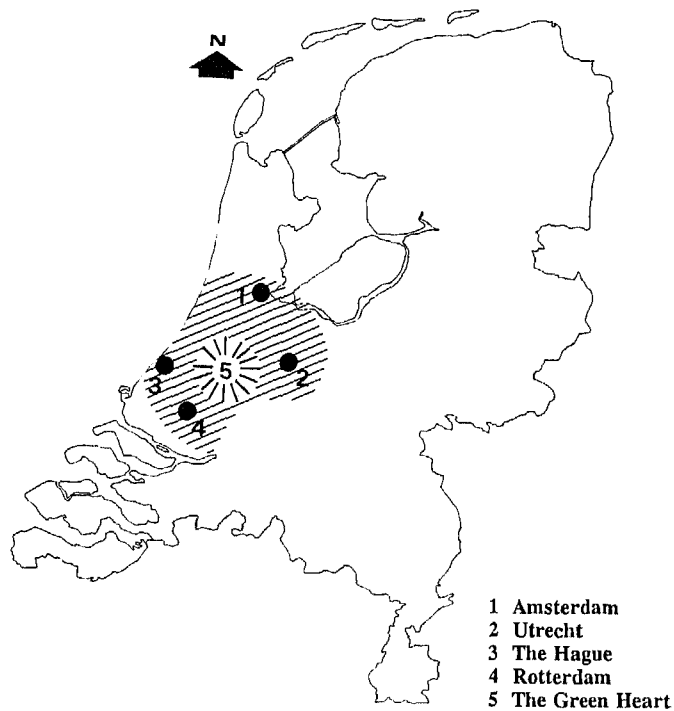
The promotion of non-subsidized housing construction has already been government policy for a number of years. There are two features which characterize government policy nowadays. Firstly, it aims at reducing the influence of the government in housing in favour of the private sector. Secondly, the government is concerned to reduce its deficit, and, in order to achieve this, substantial cuts have been made in government expenditure. This has certain consequences for the degree to which the government is prepared to subsidize new housing construction.

We discuss below the policy of the government with respect to housing in general and non-subsidized housing construction in particular. A distinction has been made between the government's physical planning policy and its housing policy. Both fields are the responsibility of the Minister for Volkshuisvesting, Ruimtelijke Ordening and Milieubeheer (VROM) (Housing, Physical Planning and the Environment).

### Planning policy

In March 1988 the government published its *Vierde Nota over de Ruimtelijke Ordening* (Fourth White Paper on Environmental Planning) (Nijpels, 1988). In it the government argued that primary responsibility for ensuring an equilibrium between supply and demand in the housing market rests with the private sector. With respect to the location of new housing the White Paper, like its predecessors, stressed the importance of urbanization. It emphasized the desirability of constructing new homes within or on the periphery of urban areas. The role of the government would be restricted in this respect to limiting the number of homes constructed in certain locations (for example in suburban municipalities) and to encourage housing construction in favoured locations (urban areas). The White Paper assumed that of the one and a half million dwellings which will be added to the housing stock between now and 2015, nearly one million will have to be built in the Randstad, the economic nucleus of the Netherlands (see Figure 1). Housing construction in the so-called Green Heart, the greenbelt in the centre of the Randstad, will be restricted.

Figure 1 The Randstad



Source: Tweede Kamer (1988)

In the *Vierde Nota over de Ruimtelijke Ordening Extra* (Fourth White Paper on Environmental Planning Extra) (Alders, 1990) the number of dwellings required to be built in the Randstad between 1995 and 2015 was reduced to around half a million!

#### **Housing policy**

In the *Nota Volkshuisvesting in de Jaren Negentig* (White Paper on Housing in the 1990s) (Heerma, 1989) the emphasis is on stimulating market forces and reducing, in financial and policy terms, the role of (central) government in housing (see also Boelhouwer and Priemus, 1990). The indicative housing construction programme was reduced from 94,500 dwellings in 1989 to 80,000 dwellings by 1995. The aim is for half of the annual housing production (40,000 dwellings) to consist of non-subsidized dwellings. As a result of the rapid rise in the number of non-subsidized dwellings constructed, already 48,400 non-subsidized dwellings were built in 1989 (see Table 1). Furthermore, the government expects the size of the owner-occupied sector to increase from its current 43% to at least 50% by 2000.

A number of measures proposed in the White Paper on Housing in the 1990s may have direct or indirect effects on non-subsidized housing construction:

- The number of subsidized dwellings will be decreased from 55,500 in 1989 to 40,000 in 1999. As a result, municipalities will be pressured to involve the private sector in constructing non-subsidized housing.
- The construction of non-subsidized rented housing by investors will be stimulated by the liberalization of rent controls.
- In order to encourage the construction of cheap non-subsidized housing in urban areas, it will be possible to grant subsidies in order to reduce the cost of land (it is a typically Dutch paradox that land is subsidized in order to promote the construction of non-subsidized dwellings).
- One way of ensuring sufficient housing for lower-income groups should be by moving high-income groups from cheap, rented housing to more expensive dwellings. This means a stimulus for the construction of non-subsidized housing.

### **3 The development of non-subsidized housing in the Netherlands**

Non-subsidized housing construction is subject to market influences to a considerable degree. A consequence of this is that there have been quite large fluctuations in the number of non-subsidized dwellings being built. This can be seen from Table 1, which gives the number of non-subsidized dwellings completed between 1980 and 1989. This number was lowest in 1983, when fewer than 7000 non-subsidized homes were constructed. In 1989 the number of non-subsidized dwellings reached a high of 48,400. The proportion of non-subsidized housing in total construction also varied considerably.

**Table 1 The number of completed subsidized and non-subsidized dwellings, 1980-89 ('000s)**

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Subsidized	84.7	99.7	114.2	104.6	95.2	76.3	75.3	73.6	72.5	62.8
Non-subsidized	29.0	18.1	9.1	6.6	17.5	21.8	28.0	36.5	45.9	48.4
Total	113.7	117.8	123.3	111.2	112.7	98.1	103.3	110.1	118.4	111.2

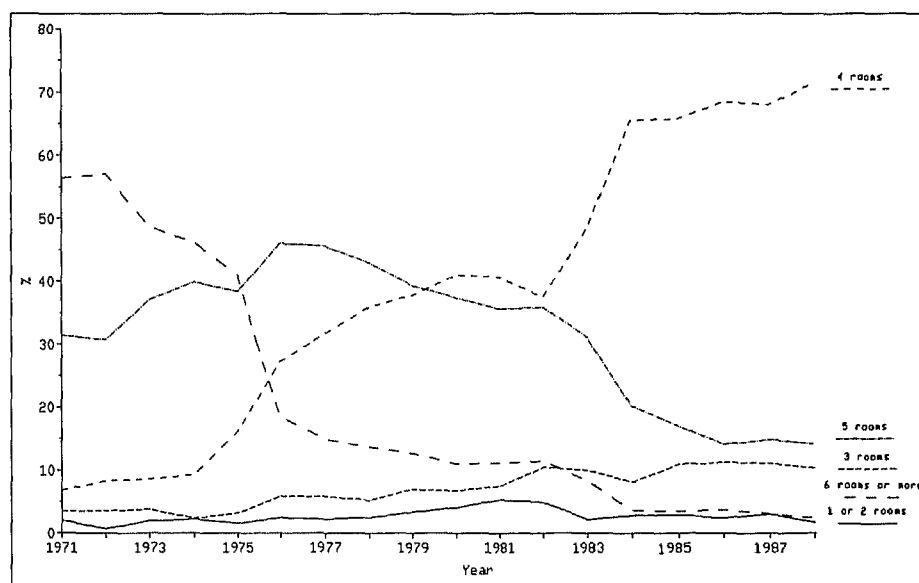
Source: CBS, Maandstatistiek Bouwnijverheid, 1981-90

#### A few characteristics of non-subsidized housing

Non-subsidized dwellings are generally built for the owner-occupied sector. In the 1960s 25% of non-subsidized housing construction was for the private rented sector. Since then, however, that percentage has fallen sharply. At the moment, about 95% of non-subsidized housing construction is for the owner-occupied sector.

Non-subsidized dwellings are largely built by construction firms, property developers and private individuals. Construction firms and property developers usually build non-subsidized dwellings to sell to owner occupiers. In the case of

**Figure 2 The distribution of completed non-subsidized dwellings by number of rooms, 1971-88**



Source: CBS, Maandstatistiek Bouwnijverheid 1972-89

private individuals, these dwellings are usually built for their own use. To a limited extent, non-subsidized dwellings are also built on the authority of investors, housing corporations and municipalities.

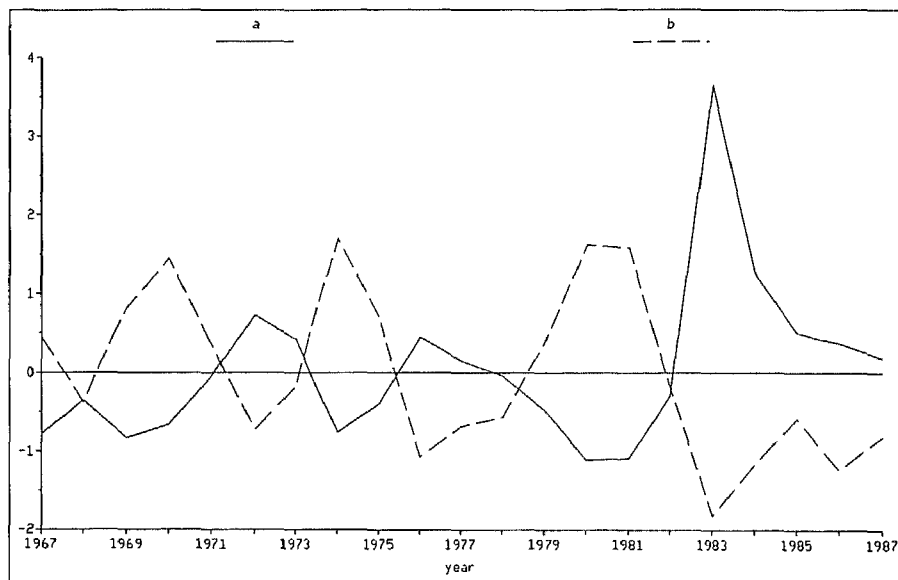
More than 90% of non-subsidized dwellings are single-family houses. Furthermore, in recent decades there has been a significant decline in the number of rooms per house. At the beginning of the 1970s more than 90% of non-subsidized dwellings had five rooms or more; by 1988 the percentage of four-room dwellings had risen to 70 (see Figure 2).

Finally, non-subsidized dwellings are on average considerably larger (in  $m^3$ ) than subsidized dwellings and the building costs (per  $m^3$ ) are higher than those of other types of dwelling.

#### **A quantitative analysis of the development of non-subsidized housing construction**

By means of a time-series analysis an attempt has been made to identify the factors influencing the numbers of non-subsidized housing constructed between 1970 and 1987. The change in the number of non-subsidized dwellings was taken as the dependent variable.

**Figure 3** Deviation in (a) the number of non-subsidized dwellings begun, and (b) the two-year moving average of mortgage interest rates, from the average for the period, 1967-87



Source: Conijn, 1989

Some of the selected independent variables turned out to have no significant effect on the changes in the number of non-subsidized dwellings started during this period. This was true, for instance, of the role of the government, operationalized as the proportion of subsidized dwellings in total new housing construction, and of changes in rent levels. The level of housing shortage and the index of consumer confidence also turned out to have little explanatory power.

Our analysis showed that changes in mortgage interest rates are the most important factor in accounting for annual fluctuations in the number of non-subsidized dwellings completed. Figure 3 shows that, with some delay, the level of non-subsidized housing construction is strongly influenced by changes in mortgage interest rates.

Besides the mortgage interest rate, changes in income and in the construction costs of non-subsidized dwellings are also relevant. If incomes increase, more non-subsidized dwellings will be built; if construction costs increase, fewer non-subsidized dwellings will be built.

Finally, a dummy variable was included in the equation for 1983. In 1983 an arrangement was introduced which included a one-off grant for the construction of some 15,000 "non-subsidized" dwellings. This arrangement influenced the number of non-subsidized dwellings begun.

The estimated equation (1970-87) is:

$$\text{MBEGVS} = -3.03 \cdot \text{SREN2} + 3.54 \cdot \text{MRGL1} - 2.16 \cdot \text{MBKVS1} + 49.21 \cdot \text{DUM}$$

(-6.20)
(3.96)
(-3.16)
(1.99)

$R^2=0.90$

Durbin-Watson statistic=2.17

T-values given in brackets

MBEGVS: the percentage change in the number of non-subsidized dwellings begun

SREN2: two-year moving average of the percentage change in nominal mortgage interest rate

MRGL1: the percentage change in nominal wages, lagged by one year

MBKVS1: the percentage change in nominal construction costs of non-subsidized dwellings, lagged by one year

DUM: the dummy variable for 1983

Source: Conijn, 1989

On the basis of this equation we can show that a change in mortgage interest rates would have a considerable influence on non-subsidized housing construction. Low mortgage interest rates (7% was assumed) and moderate increases in construction and wage costs (2% and 3% respectively) would result in an additional annual increase in the number of non-subsidized dwellings being built of 6.3%. An increase in mortgage interest rates to 9% over a period of a few years together with an increase in construction costs greater than that in incomes would result in a halving of the number of non-subsidized dwellings built every year.

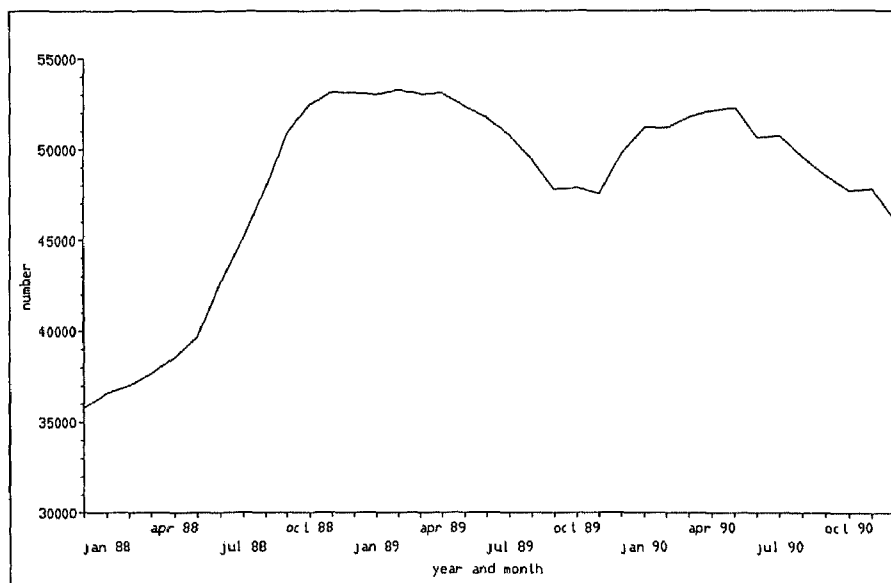
At present, as in other countries in western Europe, mortgage interest rates have been increasing sharply in the Netherlands (they were nearly 10% in January 1991). In addition to this, construction costs have also been increasing. Our regression model suggests that the number of non-subsidized dwellings started should decline from the end of 1989. The number of building permits issued for non-subsidized housing construction, however, stayed at a relatively high level, after initially declining at the end of 1989 (see Figure 4). This means that the model for the period 1970-87 is not necessarily a good predictor of the future.

It is possible that the changing role of the government, as reflected in the reduction in the number of subsidized dwellings constructed, has influenced the situation in the housing market. One might then expect there to have been a substitution of subsidized dwellings by non-subsidized dwellings. For the period 1970-87 our findings suggest that the number of subsidized dwellings was of little importance in determining changes in the number of non-subsidized dwellings begun. Perhaps there has been a change in this relationship during the second half of the 1980s.

#### **The spatial distribution of non-subsidized housing construction**

The increase in the size of the housing stock and the share of non subsidized dwellings in the total new housing was not distributed equally over the

**Figure 4. Twelve-month moving average of the number of building permits granted for non-subsidized dwellings, December 1987 - December 1990**



Source: CBS, Maandstatistiek Bouwnijverheid, 1988-91



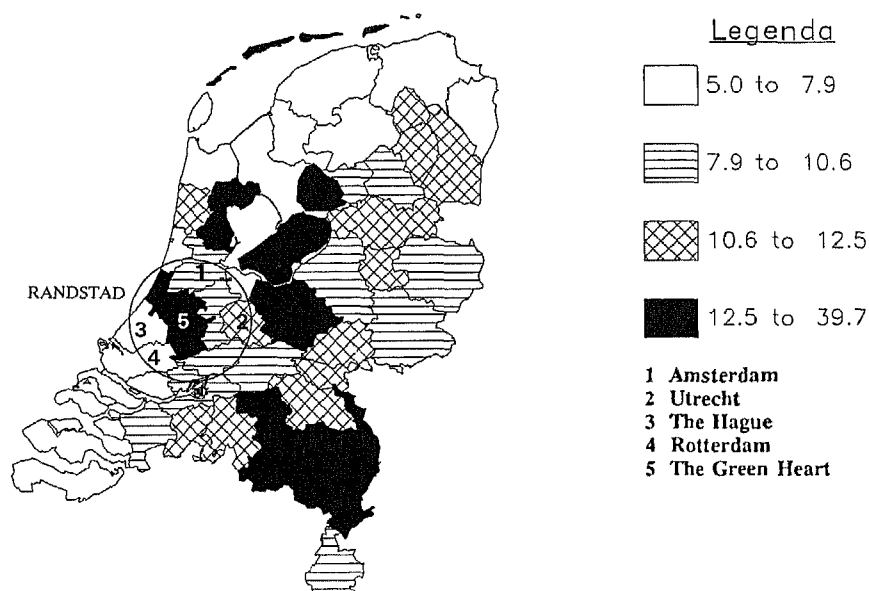
Netherlands. This can be seen from Figure 5 and Figure 6.

Figure 5 shows that the increase in the size of the housing stock varied considerably between housing market regions. In the period 1984-88 the housing stock in the Netherlands grew most in a number of regions in the centre and the southeast of the country. In the Randstad the housing stock increased most in (parts of) the Green Heart.

In the period 1984-88 non-subsidized housing construction accounted for 27.3% of total new housing. Further, the proportion of non-subsidized housing construction varied considerably between housing market regions (see Figure 6). The housing market regions where relatively many or few non-subsidized houses were built were more widely distributed over the Netherlands than was the case with the growth of the housing stock. The housing market regions in which the largest cities (Amsterdam, Rotterdam, The Hague and Utrecht) lie were all characterized by a relatively low proportion of non-subsidized housing.

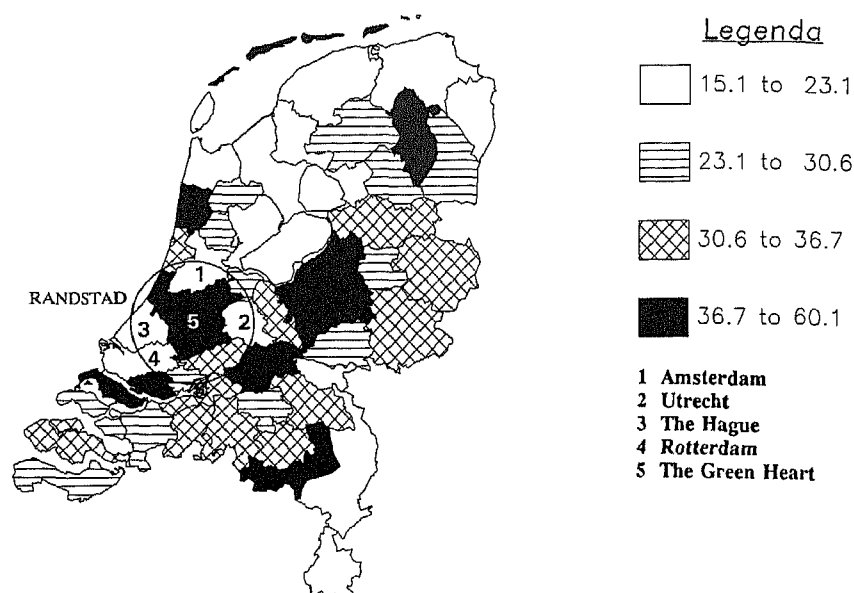
Many non-subsidized houses were built in the housing market regions in the middle of the Randstad. From a labour market point of view the Randstad is an attractive location for housing. The large proportion of non-subsidized housing in these regions can also partly be explained by the fact that little non-subsidized housing has been constructed in the large cities.

**Figure 5 Increase in the size of the housing stock per region (%), 1984-88**



Source: Conijn, 1989

**Figure 6** Non-subsidized housing as a proportion of total new housing construction per region, 1984-88



Source: Conijn, 1989

In addition to regional differences there are also differences between types of municipality in the proportion of non-subsidized dwellings in total new housing. In small municipalities relatively many non-subsidized dwellings have been built, especially in the rural and smaller municipalities on the periphery of the large towns. In contrast, relatively few non-subsidized dwellings have been built in the large cities (those with a population of 100,000 or more) (see Table 2). In these large cities the proportion of non-subsidized dwellings in total new housing was low, as was the increase in the size of the housing stock.

In order to account for the spatial distribution of new non-subsidized housing construction we have also examined many of the characteristics of the municipalities. We have restricted our analysis here to non-subsidized owner-occupied dwellings. Besides the size of the municipality, the average income of its inhabitants and the type of political party in power proved to be explanatory factors. In more right-wing municipalities relatively more non-subsidized dwellings were built, and, where average incomes were higher, the proportion of non-subsidized dwellings was also larger.

This section showed that in the period 1984-88 the spatial distribution of non-subsidized housing in the Netherlands ran counter to the aims of the government's urbanization policy. The proportion of non-subsidized housing

**Table 2 Increase in the size of the housing stock and in non-subsidized housing as a proportion of total new housing, by size of municipality (number of inhabitants), 1984-88**

Size of municipality	Increase in housing stock (%)	Non-subsidized housing as a proportion of total (%)
< 5 000	9.2	38.0
5 000-10 000	11.0	39.2
10 000-20 000	10.9	38.2
20 000-50 000	11.1	33.2
50 000-100 000	13.6	20.9
> 100 000	6.5	13.0
Netherlands	10.1	27.3

Source: Conijn, 1989

construction was relatively large in small municipalities and relatively small in the most urbanized areas of the country, in which the four largest cities lie. In the following section we shall consider this in greater detail.

#### **4 The scope for and limits to the further development of non-subsidized housing construction**

Our previous analysis has shown that a substantial proportion of non-subsidized housing construction strongly depends on economic conditions, with mortgage interest rates in particular being a decisive factor. In recent years the situation has favoured building non-subsidized dwellings. As a result of rising interest rates, however, present conditions are less favourable. The aim of the government remains, however, to maintain the proportion of non-subsidized housing in total new housing construction at a high level. No provisions have been made, however, to compensate for a possible sharp decline in non-subsidized housing construction. If mortgage interest rates and building costs increase further, this may result in a decrease in the number of non-subsidized houses constructed. If the government does not act in such a situation, for example to increase the number of non-subsidized dwellings being constructed, then the total number of new homes being built will decrease, and the housing shortage will increase.

The emphasis of government policy on non-subsidized housing construction has, besides leading to a greater dependence on economic conditions, also a number of consequences for the implementation of government policy.

As we have already mentioned, urbanization remains an important objective of government planning policy. In this respect the Randstad plays an important role. The Randstad consists of a number of large and medium-sized urban districts around a green and relatively open centre (the Green Heart). Further

urbanization threatens the open character of this area. In the last section, however, it was shown that non-subsidized housing was built relatively often outside the urbanized areas of the Netherlands. A shortage of suitable land within the urban areas on which to build is the most important reason for this. Within the large cities, therefore, the highest priority is the provision of housing for those households on low incomes.

This means that provinces, which play an important role in the allocation of the national housing programme to the various municipalities, face the dilemma of, on the one hand, realizing a sufficient number of houses, and, on the other hand, maintaining a policy of urbanization. Supporting urbanization often means that, in view of the limited availability of land suitable for building, an insufficient number of homes will be built. In practice, the highest priority is usually given to the first objective, the construction of a sufficient number of dwellings. In order to achieve this, more non-subsidized dwellings are being built outside the urban areas than was thought to be desirable from the point of view of spatial planning.

The abandoning by the government of its policy of urbanization would be the most effective way of increasing the number of non-subsidized dwellings being built. Clearly such a move would run counter to the government's planning policy. A limited extension in the size of the urban area might be possible, however. Small and medium-sized municipalities close to the major cities are the most likely areas to be considered for this. It might be possible to modify the housing programme and the system of housing allocation so that those seeking housing in the major cities would be able to live in these urban extension areas. This would necessitate the co-operation of these municipalities. If no agreement can be reached then government intervention seems inevitable in the long run. It may be desirable then to merge municipalities or incorporate (parts of) municipalities into the major cities.

## **5 Conclusions**

Our analyses of the development of non-subsidized housing construction show that this sector of the housing market has developed rapidly in the Netherlands in recent years. It is also clear that non-subsidized housing construction is extremely sensitive to external influences like changes in mortgage interest rates, income levels and building costs. Too great an emphasis on the building of non-subsidized dwellings therefore means that the total level of housing construction will become greatly dependent on economic developments. In the medium to long-term this may lead to a considerable discontinuity in levels of housing construction. Solving the housing shortage and providing housing for lower-income groups may be more difficult as a result. A persistent decline in the demand for new non-subsidized housing, will force the central government to take action.

Furthermore, it is also important that the government, despite the fact that the level of new non-subsidized housing construction is sensitive to influences outside the direct sphere of government, plays a role in securing adequate housing provision by the market. Our study has shown that in practice there is an important tension between the government's urbanization policy and the construction of non-subsidized dwellings. Despite the fact that the government explicitly prefers non-subsidized dwellings to be built in and around urban areas, in reality precisely the opposite appears to be taking place. To a considerable degree, these problems are caused by the fact that, because of the lack of suitable building locations in the cities, the large municipalities have few opportunities to develop non-subsidized housing. Better co-operation between the major cities and the small and medium-sized municipalities nearby in the planning of housing construction programmes and the allocation of housing can contribute to a solution to this problem.

#### Notes

- (1) The term "non-subsidized dwellings" requires a further explanation. In 1983 a scheme was introduced whereby some new housing was eligible for a one-off grant of f 6000 (later f 5000). These dwellings are nevertheless regarded as non-subsidized dwellings. After 1984 the number of dwellings built under the terms of this scheme was about 15,000 to 20,000 per year. In the period 1990-93 the number of new dwellings to be built under this scheme will be reduced to 5000 per year.

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