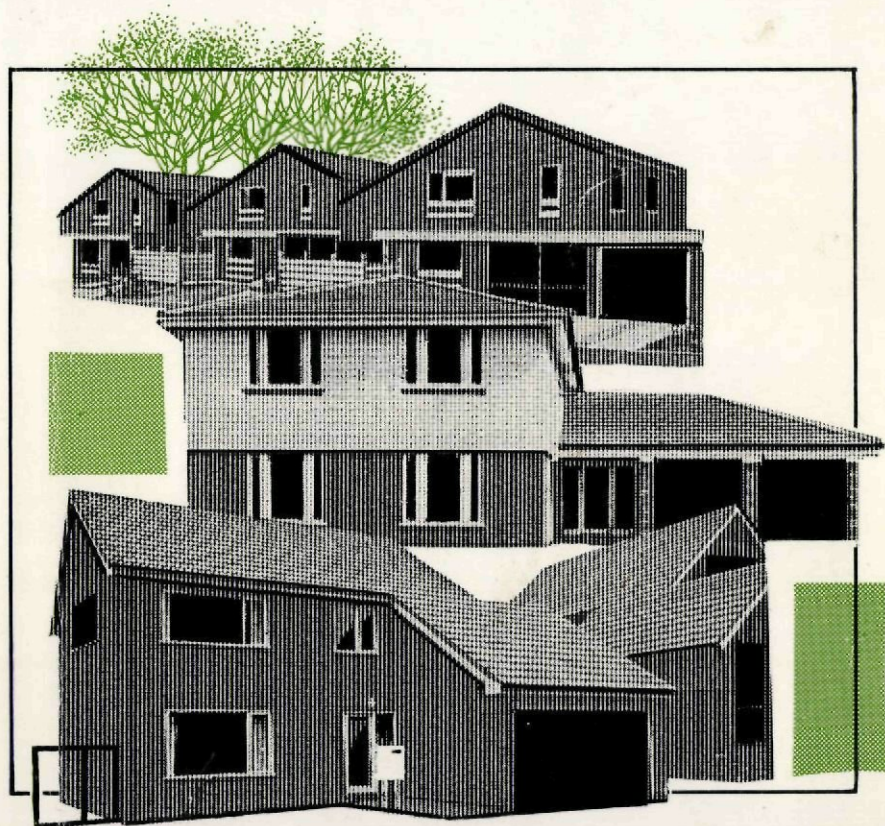


The Private Residential Rental Market in New Zealand

John Savage, Susie Kerr, Stephen Toplis



NZIER



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by
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and Stephen Toplis

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PREFACE

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OVERVIEW

This study is intended largely as a review of the major factors which influence the residential rental market in New Zealand, including recent developments in these. At a less detailed level we have also noted some of the major policy issues. The main points are:

Demand for Rental

1. It is useful to distinguish between factors affecting the overall demand for housing and those which influence the tenure choice decisions of households between rental and ownership.
2. Overall demand is largely influenced by demographic factors, income levels, and the price of housing (either ownership or rental).
3. Despite a slowly growing population (which has eased pressure on housing demand in recent years), average household size has been falling for some time and this has increased housing demand. A number of factors have contributed to this, including an aging population, and a growing proportion of the adult population who are either divorced or separated.
4. Moderating these effects are the increasing proportion of the population who are Maori or Polynesian. These groups tend to have larger households, and are, on average, younger.
5. The net migration outflows during most of the 1980s have limited housing demand, relative to the years of sizeable inflows during the early 1970s.
6. Overseas evidence suggests that housing demand is relatively insensitive to changes in income levels (ie. demand is "income inelastic"), but that the sensitivity varies depending on household characteristics. Low income groups, renters, small families, and households with male heads tend to have less sensitive demand.
7. In New Zealand, since 1981, real disposable income has been falling, with larger falls among lower income groups. Housing has increased as a proportion of total household expenditure.

8. It is also apparent that demand tends to be insensitive to the price of housing. In real terms, since about 1981, real rental and ownership costs have increased in New Zealand. This contrasts with most of the 1970s when both fell in real terms.

9. Sociodemographic profiles of (private sector) renters suggests that those with relatively high propensities to rent are young people, female headed households, single and separated individuals, and Maori and Polynesian households. Among private renters, the association with income is not clear-cut but there is a tendency for lower income groups to have a higher propensity to rent. This pattern is much clearer when public and private renters are combined.

10. The vast majority of tenants are unwilling renters (86 percent in one survey). Thus the choice to rent is usually a function of economic constraints, rather than reflecting differences in household "tastes".

11. We have distinguished between the *economic* costs of housing (the total *net* cost discounted over the household's planning period) and the *outlay* costs (payments each period, mainly mortgage repayments or rent). There is some evidence that since the mid-1960s, the economic price of house purchase has consistently been less than the economic price of renting but that the gap has narrowed. The outlay price of buying has always been more expensive than renting with it becoming increasingly so over time.

12. As regards affordability (ie. mortgage or renting costs relative to average incomes), both ownership and renting have become more expensive since the mid-1970s. Rental affordability has declined relatively more than ownership.

Supply of Rental

13. No good quality database exists to tell us who landlords are, and what type of property they own. A few limited sample surveys are the only source of information. These do provide similar profiles of supply, but probably exclude both larger scale, higher income

landlords, and those individuals who rent out part of their home and reside with their tenants. This latter group probably make up a significant proportion of all landlords.

14. Of the 60 percent of rental properties in New Zealand that are privately owned, most (perhaps around three quarters) are owned by individuals. The remainder are split between partnerships and companies.

15. There appear to be very few full-time landlords. Most of those who rent out residential property hold other jobs and are frequently self-employed. The majority of the landlords covered in the surveys (around two-thirds) administer their own properties.

16. While there is some variation in the sociodemographic profiles of landlords, they are most likely to be middle-aged, married males with above average (but not especially high) incomes. Rental income comprises, on average, about one quarter of total earnings.

17. Those surveyed had been landlords for 9-10 years on average and treated rental ownership as a long-term investment, with capital gains generally the major part of the overall return.

18. The strongest disincentives to acting as a landlord (for those who are) appear to be the costs of maintaining properties, and taxation. However, no particular change in their operating environment (whether economic or legislative) was strongly favoured as a way of encouraging an expansion in their rental operation (at least at the time of the surveys).

19. It is not clear what factors produce a predominance of "small-time" landlords, but in the UK, North America, and Australia, a similar pattern of residential rental ownership is evident.

20. Rather than outlining a detailed model examining factors affecting supply, we have simply set out to identify the major supply influences and examine recent patterns of behaviour. The main factors of interest are noted in points 21 to 25.

21. Net rental cash flows: Although sensitive to the assumptions used, on average these appear to be either low or negative. This pattern is evident across different regions, types of rental property, and different time periods, and coincides with survey data on landlord returns.

22. Capital appreciation: While residential property was a consistently sound investment during the 1970s (in terms of capital gain), our rough estimates provide some evidence that both shares and commercial property may have provided slightly better or similar returns during the 1980s. The impact of this on supply has probably been moderated because of "landlord naivety" and a general reluctance by small scale investors to shift out of an area they are familiar with.

23. Construction inputs: New housing construction (rental and others) tends to be closely related to economic conditions generally, but, because of the nature of its inputs, slow to adjust to changes in demand. There is therefore a tendency for the supply of construction sector inputs to get out of alignment with demand. In particular, it would appear that the stock of new sections has been running down in recent years. The range and complexity of building codes and land use regulations makes it very difficult to assess their impact on new construction patterns and costs.

24. Legislation: Apart from building and town planning regulations, two main forms of legislation are likely to impact on rental supply. Tenancy and rent control laws in the past have, in practice, probably not had a great deal of influence on either rent levels or the quantity of accommodation. It is unclear whether the present Residential Tenancies Act has discouraged landlords from participating in the market, but overall the Act does not appear to be particularly onerous (It may even have a positive effect in the longer term by better defining rights). In contrast, tax legislation has probably been more influential. The tax clawback provision will have made landlords cautious about entering the market since 1983, given their apparent dependence on capital gains. Future introduction of a capital gains tax could thus be important. Relatively high marginal tax rates in the past have contributed to poor cash returns.

25. **Public Rental Supply:** Again, data in this area is not very satisfactory. Despite a net decline in Housing Corporation rental units between 1981 and 1984, stocks are now steadily being replenished. At the same time, the targeting of provision has become tighter, with rent levels more closely related to tenant incomes. Public provision will affect the level of supply of private rental units, and both sectors will compete for construction inputs.

26. Very few studies of rental supply elasticities exist. Those which do, appear to produce results which are very sensitive to the nature of the data used and equation specifications. While estimates vary widely, supply tends to be inelastic with respect to rent levels.

The Rental Stock

27. Unfortunately no long term data series on the private rental stock exists. From recent census data we know that around one quarter of all private dwellings in New Zealand are rented and 60 percent of those are privately owned. This is in contrast to Europe where the majority of dwellings are usually rented, with public provision and subsidies common.

28. Between 1981 and 1986 the private rental stock in New Zealand increased by about 6000 units while the total public stock fell by 4500 units. This is due mainly to a large decline in units held by government departments.

29. Roughly half of the private sector stock comprises houses rather than flats, with the stock of houses-converted-to-flats declining substantially since 1980, and numbers of purpose-built flats remaining more or less static. Most blocks of flats in New Zealand are made up of just two or three units, there being very little large scale provision.

Policy Issues

30. We have provided a brief overview of policy issues, beginning with a summary of current policies affecting rental markets (see Table 5.1). Importantly, this indicates that these policies are very diverse, ranging from direct public provision of rental units to

macroeconomic policies which affect financial market conditions. Because the policies have not developed in a coordinated manner, their effects are at times not obvious and indeed may conflict.

31. The overall objective of housing policy has usually been to ensure the availability of some minimum standard of housing to all who require it. Traditionally, intervention has been justified on both efficiency and equity grounds.

32. A common efficiency argument is about the existence or otherwise of externalities. While there is evidence they exist, the question is usually whether the more fundamental problem is one of poverty, and if so, how that is best dealt with. A further approach is to focus on whether market failure exists. While the housing market is difficult to characterise as "perfectly competitive", so too are many other markets. As the "comparative institutional framework" shows, using intervention to push a particular type of transaction closer towards the ideal "market", ignores the fact that very few exchanges occur in that environment and that in fact a range of institutional environments arise.

33. Equity rationales are usually about the affordability of housing and whether housing policies should be an instrument of income distribution. Here the debate centres on the most appropriate form of intervention. If poverty rather than poor housing is the issue of concern, why should the government be involved in either actual provision or tied subsidies? Some argue that in this case more general income maintenance policies are a more "efficient" form of intervention. The contrary approach is to argue that such policies fail to deal with problems of adequate minimum standards, discrimination, and security of tenure.

1. INTRODUCTION

1.1 Objectives of the Study

This study comprises two main parts. The first is a statistical picture of the characteristics of the residential rental market in New Zealand. We examine both the demand for, and supply of, private rental accommodation and attempt to isolate the most important components of each. Two objectives underlie the analysis. One is to gain a better understanding of the structure of the rental market and recent trends in it. The other, related, but more difficult, task is to establish the likely sensitivity of demand and supply to policy changes. The second part of the study draws on this in discussing the possible forms of intervention that might be applied to the rental market and the likely implications of each.

1.2 Characteristics of the Housing Market

One of the most fundamental issues underlying the analysis of the market for rental housing is that although it is conceptually distinct from the market for home ownership, it is closely interrelated with that market. This is true on both the demand side (in terms of tenure choice) and also on the supply side (eg. often individuals will act as landlords temporarily because they happen to own a home which is surplus to their requirements for some period, and also, there is no barrier to housing units shifting between owner occupation and rental use). Because of this interrelationship it is not possible to examine the characteristics of the rental market without a wider consideration of the demand and supply of housing generally.

In fact, the housing market comprises two markets: the market for housing services and the market for housing stock.¹ In this sense housing is both a consumption good² (services) and an investment

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1.

By stock we mean physical dwelling units. The quantity of housing services derived from this is a combination of all outputs provided by that stock - space, heat, proximity to work etc. (See eg. De Leeuw and Ekanem, 1971).

good (stock). An owner-occupier can be thought of as operating in both markets (as an asset holder and a deriver of services) while tenants are only consumers of housing services and landlords are primarily in the housing market as asset-holders. However, as Stafford (1978) makes clear, "the relationship between the two (markets) is strictly formal, (since) the factors which determine the price of any capital asset and the rent of its services are likely to be similar. If the stock of housing is changed through new building or clearance, then there will also be a change in the consumption of housing services" (p. 25). The demand for housing stock is a derived demand, being a function of the demand for housing services.

As both Stafford and Olsen (1969) concede, it is difficult to apply a neoclassical model of supply and demand to the housing sector, since several aspects of the sector make housing as a commodity difficult to characterise in that framework. Smith *et al* (1988) identify several special characteristics of housing:

(a) Durability

Housing stock is usually inherently durable. Because of this, and the time involved in construction, it is typically assumed that short-run supply is perfectly inelastic and that net additions to the stock are very small relative to the total at any one time. In the longer run, a gradual stock-flow adjustment occurs. Further, the nature of the stock changes overtime, either improving via alterations, additions, and renovation, or declining because of lack of maintenance etc. This process is known as "filtering".

(b) Heterogeneity

Related to this, is the recognition that housing is difficult to characterise as a homogenous good. Not only will its character change over time, but at any given time, houses vary greatly in their size, age, design, access to other locations, surrounding land uses and the like. Therefore even when two houses have equivalent sale prices or rental values, they might represent two distinctly different goods (eg. one may be larger but of poorer quality than the other). In other

.....
2. And as a consumption good it has both necessary and luxury elements to it. (Stafford, 1978).

words, households will confront important trade-offs between different types of housing, neighbourhood characteristics, and access to employment, among other things.

In an economic context there are two ways of handling heterogeneity. One is to think of housing not as a single commodity but instead as a "bundle of characteristics", with different consumers seeking different mixes of these characteristics (see eg. Lancaster, 1966). An alternative is to simply make a distinction between quality and quantity of housing stock or services.

Heterogeneity means that no simple commodity market with a single quoted price will exist. Consequently, although a range of prices will be "posted", to acquire accurate market information involves a costly process of search, frequently requiring the services of a broker (real estate agent, rental agent, etc). There are also negotiation costs. This has implications for the speed of market adjustments - high transaction costs are incurred in buying, selling, and constructing dwellings, and this slows demand and supply responses as relative prices alter.

(c) Immobility

Smith *et al* refer to this issue as one of "spatial fixity": that is to say, once constructed, an accommodation unit cannot usually be moved.³ This characteristic makes location an important attribute of the total housing "package".

There are three aspects to location. First, it can be considered in relation to distance from the central business district, place of employment, schools, transport routes etc. Second, it is relevant with regard to the nature of local land use and other housing in the area. (This aspect is often linked to the idea that "clustering" of certain types of housing or tenants in a particular area provides collective externalities). Finally, which local authority covers the location of a

.....
3. The predominance of wooden houses in New Zealand means that in fact detached houses are sometimes shifted. Also "mobile homes" are not uncommon.

house may be important in terms of rating levels, by-laws applying to construction methods and density, and the availability of public amenities.

(d) Government Intervention

Across virtually all countries, government involvement in housing markets is high when compared with other goods. Intervention generally operates at both a local and central government level and may include taxation, subsidies, rent control, direct provision, capital market intervention, establishment of public institutions, and regulation (eg zoning, building codes).

1.3 The Rental Housing Market : Theory

Having noted some special features of housing markets generally, it is useful to briefly summarise what we would expect the major influences on rental demand and supply to be.

1.3.1 Rental Housing Demand

As noted earlier, a distinction is made between housing stock and housing services. The housing stock is the number of separate dwellings. Demand for stock depends largely on population growth in terms of the number of household units formed. Household formation is essentially a function of demographic factors and social change. Economic factors affect the processes underlying the demographic effect as well as the demographics themselves (eg. Becker's theory of the family, migration patterns). Economic factors also affect the direction and speed of social change.

Housing services are the benefits an individual or household receives from consuming units of housing stock. The amount of services derived from a house depends on its size, quality and location. The percentage of resources households are willing to devote to housing determines the demand for housing services.

In summary, the demand for private rental housing depends on both the overall demand for housing services, and tenure choice between home ownership and rental accommodation. These will be a function of individual preferences, demographics, relative prices (housing

versus other goods and rental versus owner-occupation) and household income and wealth. In the New Zealand context it also depends on eligibility for and availability of state rental accommodation.

1.3.2 Rental Housing Supply

Changes in rental supply are a function of both new construction and shifts of units between the owner-occupied and rental sectors. If landlords are profit maximising investors we would expect supply to be a function of net rental returns relative to other forms of investment. Three variables are therefore of interest (Charles, 1977):

- (a) Net Cash Income. That is, rent less costs and taxes. Servicing costs will include maintenance, insurance and management expenses. As well there are capital costs in the form of mortgage payments. Taxes may be levied on property, income and/or capital gains with expenses (usually including depreciation and interest payments) being tax deductible. As real (net of tax) returns rise we would expect supply to rise. Conversely as real costs or effective tax rates rise supply will contract.
- (b) Asset Value. Since, in the short-run at least, property is a store of wealth real capital appreciation may be an important motivation for holding rental units. Thus when real house prices rise, or more precisely, are *expected* to rise, rental supply will increase. Charles, argues that there are, however, caveats to this. Once a house becomes a rental property, it may tend to depreciate faster than as an owner-occupied dwelling (or conversely maintenance costs rise).⁴ Also, capital gains may be subject to various tax provisions.
- (c) Alternative Investments. We would expect an inverse relationship between rental supply and the returns offered by other investments. Apart from the absolute return, decisions about switching between investments will depend on the transactions costs of changing investments, the on-going

.....
4. In the New Zealand case, the 10 year claw-back provision, as discussed later.

transactions costs associated with each investment, the relative risks involved, and variations in tax treatments. (Essentially we are concerned here with the opportunity cost of capital).

1.2.4 *An Alternative Framework*

Most analysis of rental markets utilises the standard neoclassical framework which implicitly assumes a perfectly competitive market. Although attempts are made to identify factors which detract from perfect competition such as heterogeneity. In contrast, the transactions cost or comparative institutional framework⁵ takes a broader perspective and examines the whole range of possible structures within which economic transactions occur (eg. bureaucracies and written contracts) not just simple competitive markets.

The comparative institutional approach assumes that there may be significant costs involved in the *process* of exchange depending on the nature of the goods and services involved. Buying and selling goods and services is about the formation of "contracts" (either implicit or explicit, simple or complex) between two or more parties. The transaction costs involved in forming these contracts arise for a number of reasons. Depending on the good concerned they may include search, negotiation and enforcement costs. Some arise, for instance, because information about the product is rarely complete (eg. the buyer has to be able to assess its value in some way, perhaps by "shopping around") and one party to the contract often knows more about the product than the other, (ie. there are costs for one party in extracting information about the quality or content of the product being offered). The crucial point is that if the very act of buying or selling a product involves costs, then the way in which the economic system is organised will reflect attempts by individuals and groups to minimise such costs.

.....
5. See in particular Williamson (1975, 1986)

The "governance structure" within which the exchange of a particular good occurs depends on such factors as the good's degree of specificity to the user, frequency with which it is transacted, degree of uncertainty associated with its purchase, and the measurability and appropriability of its benefits.

In the case of housing services, measurability and appropriability are generally not a problem - benefits are clearcut and are appropriable by the tenant/homeowner. Likewise, uncertainty is not usually an issue except to the extent that soundness of construction, title details, and perhaps how prone a property is to natural disaster, need to be checked. All these factors encourage market provision rather than some other arrangement. Against this, however, some features of housing services may be specific to particular purchasers and housing services are, usually, infrequently transacted. This combination is likely to encourage more formal contracting relationships with a third party to act as broker/adjudicator.⁶ In fact, in both the rental and owner-occupied sectors, this is what we find - explicit contracts signed by landlords and tenants, and buyers and sellers which may involve third parties such as the Housing Corporation and real estate agents, and which are enforceable by the law courts.⁷ To use Okun's terminology, then, there are aspects of housing markets which make them more like "customer markets" than "auction markets".

Other institutional forms of exchange of housing services are also found - eg. those between parents and children (which are internal to the family), and those involving government provision of housing. The family is, perhaps, the most important mechanism overall. Nearly all children under 15 (and many older ones) have their housing provided by their parents. Similarly, children may support their elderly parents in their home, or a second family home. Over time, social changes affect the extent to which these mechanisms are important. For example, less children care for elderly parents in their own homes than used to be the case and there has been a decline in

6. Williamson would term this "trilateral governance".

7. Although for owner-occupiers the contract relates only to the one-off sale/purchase of a home. For tenants/landlords it is on-going.

the significance of nuclear family units generally (due to divorce, etc). These changes produce shifts towards alternative forms of provision such as "retirement villages".

Economic factors also affect family provision of housing. If market housing is expensive or unattractive, children may choose to stay home longer and extended families may be encouraged to live together. Further, factors such as prices and incomes may also affect the direction and rate of social change. For instance, the increase in the number of single person households may be due, in part, to increased incomes among certain groups of single people. Thus "internal" provision of housing through families is changed through social and economic forces. It is one of the major ways in which overall housing demand and supply adjusts to economic changes and this complicates any analysis of such changes.

Welfare Agencies help to provide housing for those who are considered unable to house themselves. These agencies include the Government (Housing Corporation and Maori Affairs), and private groups like Women's Refuges, the Salvation Army, old people's homes, and university hostels run by religious organisations. These forms of provision may be very important for particular individuals at certain stages in their lives, many of whom would otherwise compete on the private rental market.

Lastly, housing is sometimes related to employment. In 1986, five percent of households had employer provided housing. Such housing can be regarded as a fringe benefit attached to a job and is essentially a labour market transaction in a non-monetary form. Its effects on the working of the wider housing market will depend largely on whether employees have a choice on the form of remuneration. It may cause them to "over-consume" housing although often this form of housing is provided in isolated areas and will have little distortionary effect.

In summary, there are a number of factors which complicate any analysis of residential rental markets. Both demand and supply factors depend on changes within the owner-occupied sector and we need to distinguish between housing services and housing stock. Also, particular aspects of housing as a commodity such as durability, heterogeneity and immobility detract from the traditional neoclassical framework. In this context we have noted that it may be appropriate to apply the more generalised framework provided by the transaction costs literature. The normative implications of this will be discussed in the later section on policy options.

2.THE DEMAND FOR PRIVATE RENTAL HOUSING

2.1 Introduction

The aim of this chapter is to investigate the processes by which demand for rental housing is determined. Our aim is to identify the major variables affecting demand and their likely interactions. Some empirical evidence from overseas studies will be given to indicate the possible size of various effects. Ideally this will allow us to trace the qualitative effects of changes in policy with some indication of the quantitative significance of these effects.

In practice, decisions on how much housing to consume and which tenure to choose will be made together, in combination with all other decisions on consumption, income and investment. It is however, convenient to separate these, to look more closely at the mechanisms involved in each.

This can be done in several ways. Swan (1984) assumes that households choose tenure first and then decide how much housing to consume. Rosen, Rosen and Holtz-Eakin(1984) assume that consumers choose their tenure and housing consumption simultaneously by calculating their maximum possible utility from each tenure and comparing the outcomes. We have chosen to consider the household's total demand for housing first and then look at tenure choice incorporating the choice between private and public rental. This avoids the need for a complex simultaneous model. It allows us to include some of the complexity of practical decisions, while still allowing us to draw out the important interrelationships.

In this chapter we briefly outline the factors involved in each of these choices. In doing this, we also review some New Zealand and international evidence on the structure of models relevant to these questions, and the direction and size of various parameters. Section 2.2 considers the effects of demographics, prices, and incomes on overall demand for housing services at a macro and micro level. Section 2.3 looks at tenure choice and the effects of household preferences and economic factors on this. It also observes the effects of public housing allocation criteria on tenure profiles and thus household's choice between public and private rental.

2.2 The Overall Demand for Housing Services

The demand for a durable good such as housing depends on investment demand and consumption demand. Investment demand depends on the household's desired savings (which depend on income and the household's discount rate, among other things), returns on other investments and the riskiness of, and return on, housing as an investment. Consumption demand is affected by the number of households and each household's preference for housing compared with other goods. It will depend on household income patterns and housing prices relative to other goods.

The household which demands housing as an investment may not consume all its housing. Investment demand for non owner-occupied housing is covered in Chapter 3 which looks at the supply of rental housing. This section will primarily focus on consumption demand. We analyse the concept of investment demand when considering tenure choice.

This section will look at both demographic effects and economic effects (through income and prices) on demand for housing services.

2.2.1 *Demographics*

Between 1981 and 1986, New Zealand's total population increased by 3.8 percent to 3,263,283. In the same period, the total number of households increased by 6.6 percent to 1,069,443. This clearly implies a fall in household size. Table 2.1 shows that there was an increase in the percentage of households with 4 or fewer people and a decrease in the percentage of larger households. Consequently, there has been higher demand for housing than otherwise.

Four factors, age, ethnic origin, external migration, and marital status have major effects on household formation. People at different stages of their lifecycle live in different sizes and types of household. From Table 2.2 it is clear that New Zealand has an aging population. In general this implies smaller, more numerous households. Also, as will later be noted, younger people are more likely to rent, so an aging population, (other things being equal) implies a higher proportion of owner-occupied housing.

Table 2.1 :**Household Size (Percent of Households)**

Number of Household members:						
	1	2	3	4	5	6+
1981	18.4	29.2	16.4	18.1	10.6	7.2
1986	18.6	31.2	16.8	18.2	9.7	5.6

Source: 1981 Census Vol. 10, Table 1., 1986 Census Series C Report 12 Table 1.

Table 2.2**Age (Percentage of Population)**

	1976	1981	1986
0-15	29.8	26.9	24.4
15-24	17.9	18.3	17.9
25-39	20.0	21.2	23.1
40-49	10.1	10.1	11.0
50-59	9.3	9.6	9.0
60 and over	12.9	13.9	14.7
TOTAL	100.0	100.0	100.0

Source: 1981 Census Vol.1 Part C Table 5 p.62; 1986 Census Series C Report 2 Table 3 p.15

Maori and Polynesian people tend to have families earlier and have larger households (see Pool, 1986, p. 147). These characteristics may be partly explained by the difference in average income between Europeans, and Maoris and Polynesians. These factors may counteract each other if the age structure of the ethnic groups is stable. However Table 2.3 shows that the proportion of young people in these groups is increasing. This will lead to a higher number of new households being formed and later, maybe some larger households which may partly counteract falling household sizes overall.

A third factor causing a fall in household size is changing marital patterns. Table 2.4 shows a significant decrease in the percentage of married couples, with an increase in the percentage of never-married and divorced people. Divorce usually creates smaller households. The increase in never-marrieds may increase the number of one-person households, but might also lead to more "non-family" households. This may not have a large impact in the short term but is a significant long term influence on household size as well as on observed tenure choice. (This will be discussed in Section 2.3.2).

Finally, changes in population due to migration immediately affect housing demand (compared with natural increase which takes time to feed through). Both immigrants and emigrants are concentrated around the 20 - 24 age group. During the 1960s and early 70s there was positive net immigration which would have led to increased demand for housing. In contrast, from 1976 onward there have mainly been outflows.

Table 2.3

Ethnic Origin By Age⁸
(Percentage of total age group.)

Age	European		Maori		Polynesian	
	1981	1986	1981	1986	1981	1986
0-14	80.2	72.0	13.0	12.7	4.4	3.9
15-24	83.8	76.6	11.4	12.1	3.0	3.4
25-39	87.1	81.6	8.0	9.0	3.3	3.5
40-49	89.0	86.0	7.5	7.2	2.3	2.6
50-59	93.5	88.6	4.8	6.0	1.2	1.6
60 and over	95.7	93.8	2.5	2.7	0.6	0.7
TOTAL	86.6	81.2	8.9	8.6	2.9	2.9

Source: 1981 Census Vol.7 Table 25 p.87; 1986 Census Series C Report 6 Table 11 p.47

Table 2.4

Marital Status (Population 15 and over)

	1976 Percent	1981 Percent	1986 Percent
Never Married	21.9	26.9	29.2
Married	63.9	58.2	55.0
Separated	2.0	3.4	3.6
Widowed	10.4	6.7	6.7
Divorced	1.8	2.6	3.9
Not Specified	0.1	2.0	1.5
TOTAL	100.0	100.0	100.0

Source: 1981 Census Vol. 2 Table 10 P.120., 1986 Census Series C Report 2 Table 4 P. 16

.....
8. The definitions used in the census tables changed between 1981 and 1986. This accounts for part of the difference between the years. The 1986 figures include only people of one ethnic origin. This means that the percentages do not add to 100% horizontally.

Table 2.5

External Migration (Between Census Years)

Year	Immigration	Emigration	Net Migration
1961-1966	170337	63893	91541
1966-1971	159086	147389	11697
1971-1976	283925	201988	81937
1976-1981	201372	346594	-145222
1981-1986	204076	235517	-31441

Source: New Zealand Official Year Books - various years.

In summary, changing household patterns due to age structure, ethnic structure and marital status are at least partly responsible for the increased number of households counteracting positive net emigration and thus increasing the demand for housing stock since 1981.

2.2.2 Incomes

Changes in income levels have an effect on household formation, particularly in the long run, but they also have a more immediate effect on demand for housing services. In this section we will consider the latter effect.

As households' incomes rise, their demand for housing services rises, like the demand for most goods. We are interested here in the income elasticity of demand for housing. That is, how much the household increases its demand in response to an increase in income.⁹ It is an important coefficient for understanding the nature of housing, and for predicting the response of individuals to policies affecting

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 9. Technically defined as: percentage change in quantity demanded divided by the percentage change in income.

income, or to income trends over time. For example, if the income elasticity of the target group is low, then income maintenance policies will have relatively little effect on housing consumption.

Four major problems make comparison of elasticity estimates difficult. Differences in the definition of income, between current and permanent income are the first. Permanent income is the household's expected income over its planning period discounted to present value.¹⁰ Thus, if current income rises, permanent income will not rise if the increase is expected to be temporary. Mayo (1981) found that the "permanent income elasticity is above the current income elasticity" (p.102). Therefore if people expect their income to rise for a long period they will adjust their housing consumption more than if they expect the rise to be temporary.

Second, different specifications of housing demand models, including functional form, data source, and definition of variables naturally lead to different estimates. (See de Leeuw, p. 2).

Third, if the researcher groups households rather than using them as individual observations the estimates are changed. This is done to get a better measure of permanent income by evening out temporary fluctuations across households. Grouping of data can lead to aggregation bias, which often seems to raise the estimates of income elasticities (Mayo 1981, de Leeuw 1971).

Lastly, there are lags in response to changes and these create differences between short and long run elasticities.

Two surveys, de Leeuw(1971) and Mayo(1981), have looked at various income elasticity estimates and adjusted them for differences including the removal of biased estimates. The results of these surveys are given below. (Standard errors are not given in the survey papers). In another study, Geisel (1971) found the overall (ie. renters and owners) income elasticity to be near one.

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10. The household's planning period is defined as the period during which the household does not expect to make major adjustments to its housing. (eg. change tenure or move from one owner-occupied house to another.)

Table 2.6

Income Elasticity Estimates

	Renter	Owner
Mayo	0.25 - 0.70	0.36 - 0.86
most estimates	0.3 - 0.5	0.5 - 0.7
de Leeuw *	0.8 - 1.0	0.7 - 1.5
most estimates		1.1 - 1.5

* These results could reflect aggregation bias.

From these results, in which Mayo summarises the most recent, it seems likely that renters have a lower income elasticity than owners. Although the elasticities varied in absolute value, nearly every study showed this relationship. The more recent results seem to suggest that elasticities are less than one for a large segment of the population. This means that expenditure on housing is relatively inelastic. (For example, if a household's income doubled, its expenditure on housing would less than double.)

Elasticities can also be expected to differ with characteristics other than just tenure. This is relevant when predicting the effect of policies on particular groups. Differences in elasticities between groups will alter the nature of the good for those people.

Higher income groups tend to have higher income elasticities. Friedman, Weinberg and Mayo in Mayo (1981) estimate elasticities in the US of 0.39 for an income level of \$5000 and 0.59 for income of \$10000.¹¹ In the same article it is reported that Nelson (1975) found that "income elasticities are larger for the higher income group than for the entire sample" (Mayo, p. 108), however the evidence is not conclusive.

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 11. The actual values used in the next few paragraphs are unadjusted so only the difference between them is important.

As shown in the overall results, elasticities also vary between tenures, with renters having lower elasticities than owners. This is partly explained by the income differences between the groups. Tenants tend to have lower incomes than owners (see Section 2.3) so from the evidence above, they can also be expected to have lower income elasticities. The difference may also reflect the investment nature of housing for home owners. Their elasticity can be seen as derived from a combined demand for housing services and for investment goods.

De Leeuw finds that small families have significantly lower income elasticities than large families. However, Wilkinson(1973) finds that family size on its own is not significant, but it is, when families are stratified by age group. Larger families have higher elasticities. Mayo found the effects of household size and age ambiguous.

The gender of the head of the household seems to be another important factor. Mayo found that "Female heads of household, other things being equal, spend more [on housing] than do male heads of household" (p. 110).

Because of adjustment costs and the distinction between current and permanent income, short run elasticities can be expected to be lower than long run elasticities. Roistacher(1977) estimates that short run elasticities are in the range, 0.24 to 0.34 while long run elasticities are between 0.40 and 0.49.

Overall, then, overseas research tends to show that elasticity estimates are generally less than one. Owners, higher income earners, larger families and households with female heads appear to have higher income elasticities. Lastly, short run elasticities are lower than long run elasticities.

Because of a variety of data constraints (these are noted in Section 3.3) it has not been possible to estimate New Zealand demand elasticities with respect to income. However it is useful to note recent income trends. Between 1981 and 1988, real disposable income of wage and salary earners fell by 3.7 percent. Significantly, the fall was not evenly spread. As Figure 2.1 shows, the top income quintile

suffered only a slight decrease (with a large increase between 1981 and 1984) while the middle and lowest quintiles suffered much larger falls.

An income fall can be expected to lead to decreased demand for housing other things being equal. In New Zealand, between 1981 and 1987, housing expenditure as a percentage of income rose from 18.7 percent to 21.6 percent.¹² Real housing expenditure rose by 24 percent. Housing expenditure divided by the house price index rose 10 percent in the period. This indicates that although real income fell, real housing consumption rose. Clearly "other things" were not equal. Possible causes of this increase in consumption are discussed in Section 2.2.3.

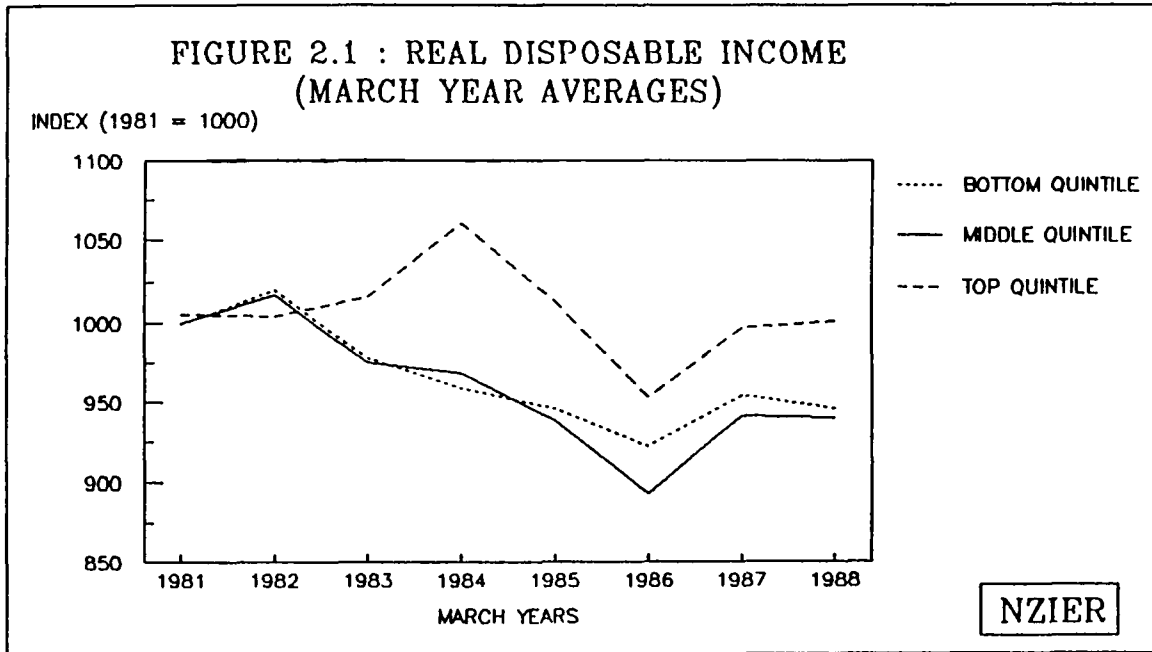
2.2.3 The Price of Housing

For renters, the price of housing is actual rent. For owners, the price is imputed rent (the opportunity cost of their housing services). Households will consider the price of housing services relative to the prices of other goods when determining consumption. This differs from the costs considered in tenure choice (see Section 2.3) where the relevant costs are rental costs relative to home ownership costs.

The price of housing needs to be considered in two ways. First, the outlay price is the actual payments the household needs to make to consume housing. This is either rent or mortgage and ongoing costs (maintenance, insurance and rates). Second, the economic price is the price of housing in an investment sense (ie. taking into account capital gains and the opportunity cost of the owners capital over the whole planning period).

Outlay prices are directly relevant to home owners, but it could be argued that the economic price is what is taken into account most in making long term decisions. The economic costs facing landlords affect rents and thus determine outlay costs for renters. For renters, outlay and economic prices are very closely related. Outlay and economic prices are discussed more thoroughly in Section 2.3.3.

12. See Household Income and Expenditure Survey.



Many factors affect the price of housing. These can be divided into, the price of housing stock, capital gains, borrowing costs, and operating costs. These costs are exogenous to individual households. They are however, determined by household choices through the interaction of demand and supply for housing, as well as the markets for land, labour, building materials, and housing substitutes and the financial market. Housing prices are thus determined in a complex system of markets.

(a) The price of housing stock and capital gains:

The price of housing stock is central to the cost of housing services because those investing in housing need to make a return equivalent to that on alternative investments. Capital gains can also have significant effects on the economic price of housing. If they are high, rents can be much lower while landlords still make a profit (see Chapter 3). Homeowners can pay high borrowing costs but still be better off in the long-run.

(b) Borrowing costs:

These are determined by interest rates, mortgage structures and tax laws. Interest rates affect the outlay and economic prices (defined above) of housing. Differing mortgage structures transfer costs between future and present repayments, and so can raise or lower the price of housing.

(c) Operating costs:

Costs such as rates, insurance and maintenance directly affect outlay prices. Rates and insurance generally rise with the value of the house.

(d) Inflation:

Inflation has a well documented "tilt" effect on mortgage repayments which has little or no effect on the economic cost of housing but may have a large impact on outlay costs¹³. Simply stated, as inflation rises so too do nominal interest rates. Therefore the constant nominal

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13. See eg. Schwab, 1982.

monthly repayments of a standard mortgage increase. As long as a household's income keeps pace with inflation, the *total* real cost of the mortgage over the period it exists, remains unchanged.¹⁴ Inflation, does, however, shift the *spread* of real costs, so that they are greater in the early periods of repayment but less later on.¹⁵

Thus inflation raises the cost of housing in the short run and lowers it in the long run. Even though this has no effect on "economic" costs it may have an effect on the demand for housing. Because of imperfect capital markets, households cannot smooth out their real costs over time. Also, households will differ in their concerns about present costs relative to future costs. Consequently, depending on their income and wealth, high inflation will encourage some households to buy homes (taking advantage of inflation reducing their long-term costs) while others will be discouraged (by high outlay costs).

Also, a fall in the rate of inflation causes a fall in the level of demand for houses in a one-off sense (See Swan, 1984). Because of nominal interest taxes on many investments and tax free capital gains from housing, during high inflationary periods housing is a superior investment. Therefore a fall in inflation reduces the attractiveness of home ownership and causes a dip in the price of houses. Because of the lags involved in the housing market, this may be seen as a period where house prices rise slower than inflation, while the market adjusts, followed by house prices increasing at close to the general rate (other things being equal). In the long run, the price of housing stock should move closely with new housing construction costs.

In the rental sector, a fall in inflation may cause rents to rise in the long run because owning rental properties will no longer be such an attractive investment. In the short run however they may fall with

14. That is, the present value of real payments discounted at the real interest rate remain constant.

15. Take as an example, a flat rate mortgage where only interest is paid over a period of 10 years and the principal is paid as a lump sum at the end. If inflation is high the interest payments will be a fairly large percentage of income. However at the end of the 10 years the principal will be small in real terms and relatively easy to pay off. If inflation is low the interest payments will be fairly low but at the end of the ten years the debt the household faces will be nearly the same as when it took out the mortgage.

housing stock costs. Likewise, in the long run a fall in inflation will cause the cost of home ownership to rise relative to other goods because of the loss in tax advantages although in the short run new homeowners may be better off.

Finally, inflation may be associated with uncertainty. The implications of this for housing prices will be discussed in Section 2.3.

In considering the empirical evidence on housing prices and demand we are particularly interested in estimates of price elasticities (ie. measures of the responsiveness of demand to a change in price).¹⁶ Many of the measurement difficulties here are the same as in the section on income elasticities. These include differences in the definition of housing services, different model specifications, the problem of adjustment costs, the use of different data bases, and the difficulty of measuring quality of housing.¹⁷

Mayo (1981), concludes that the demand for housing services is price inelastic, quoting elasticities of -0.76, -0.67, -0.53 and -0.2 (among others) from a variety of studies. De Leeuw concludes that they are in the range -0.7 to -1.5. Arcelus and Meltzer found that the interest elasticity of demand is usually less than -0.25 (This is only one part of housing price). Finally, Hanushek and Quigley (1980) found elasticities less than 1 in absolute value. It seems likely from these results that housing is generally price inelastic. No distinction is made between rental and owner occupied.

Hanushek and Quigley also consider short and long run price elasticities and estimate that in one case only 19 percent, and in another, 35 percent of the desired change is completed in one year. Thus one year elasticities may be only one fifth of the size of long run elasticities.

If price elasticities are low on average, it could mean that rent subsidies are an expensive way of increasing housing consumption.

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16. Percentage change in quantity demanded divided by percentage change in price.

17. See Mayo and Hanushek and Quigley (1980).

Table 2.7 shows how housing costs have changed between 1975 and 1988 for rental and ownership compared with the consumer price index to give an indication of real price changes. Affordability indices are considered in the following section on tenure giving similar results.

The data indicates that the rates of increase in rental and home ownership costs follow roughly the same pattern, showing a gradual fall in the late 1970s, a steady rise from 1979 to 1982/83 followed by a sharp fall between 1983 and 1984 and a increase with fluctuations after that. There was a particularly high increase in rental costs in 1985, following removal of the rent freeze. The cost of both rental and ownership rose faster than the CPI in nearly every year from 1982 to 1987.

House prices are clearly volatile. The nominal rate of increase varies from 1.9 percent to 30.1 percent in the period shown. As Figure 2.2 shows, house prices rose at twice the rate of inflation in the year to March 1975 (December 1974 for house prices), but slower than the CPI from 1976 to 1981. Between 1982 and 1984 they rose twice as fast as inflation, rose at around the inflation rate in 1985 and 1986, falling to half in 1987 and double the inflation rate in 1988.

Overall, between December 1974 and December 1987, the real price of housing fell. However, within this period, between December 1980 and December 1987 real house prices rose considerably.

This might be expected to limit the demand for housing but causality runs both ways.¹⁸ In fact, real expenditure on, and consumption of housing rose over the period. One possible explanation for this phenomenon could be the expectation of high capital gains and the high level of inflation during this period which considerably lower the *economic* cost of housing.¹⁹ Changing demographics could have also encouraged the increase in housing consumption and perhaps the pressure on prices.

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18. Price affects demand and demand affects price.

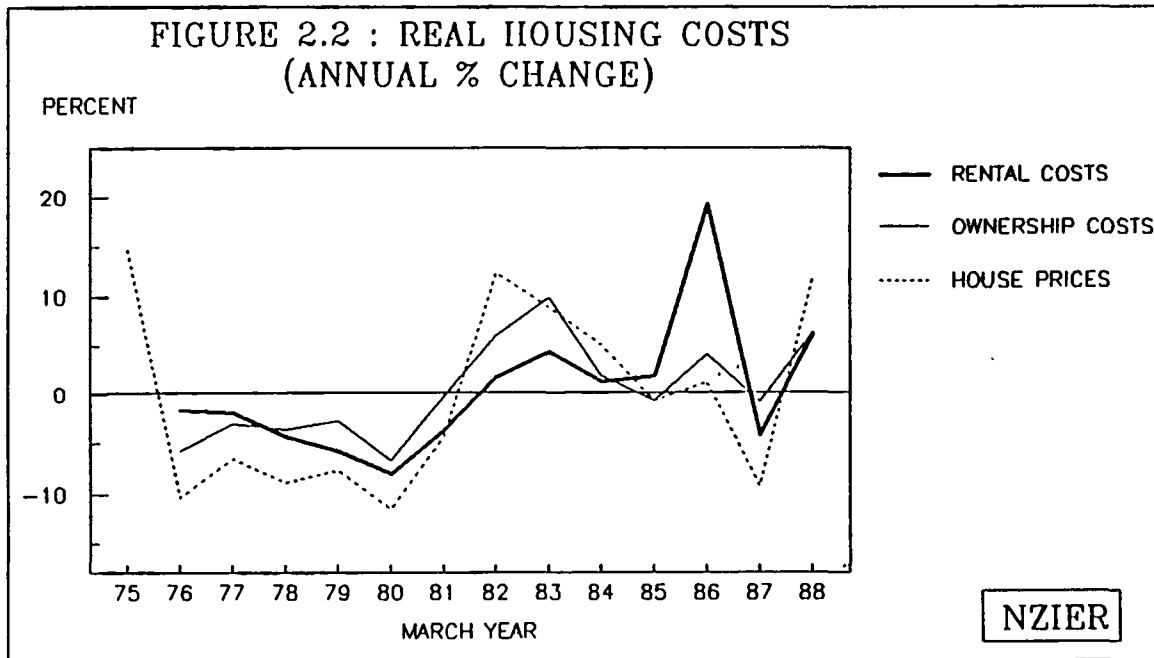
19. But raise outlay prices.

Table 2.7**Changes in Housing Costs and CPI - Annual % Change**

March Year	Rental	Ownership	CPI	House Prices¹
1975			13.2	29.7
1976	15.3	10.5	17.2	5.1
1977	11.5	10.3	13.7	6.3
1978	9.7	10.5	14.6	4.4
1979	4.1	7.4	10.4	1.9
1980	8.9	10.5	18.4	4.8
1981	11.1	15.0	15.2	10.2
1982	17.9	22.9	15.8	30.1
1983	17.7	23.9	12.7	22.7
1984	4.8	5.5	3.5	8.8
1985	15.5	12.6	13.4	12.6
1986	34.8	17.7	13.0	14.3
1987	13.3	17.4	18.3	7.4
1988	15.9	16.0	9.0	21.8

Source: Department of Statistics - rental and ownership components of CPI. Valuation New Zealand - House Price Index

1. House price changes are at December of the previous year.



2.2.4 Overall Demand : Summary

Overall demand for housing services depends primarily on the number of households, the price of housing relative to other goods and the incomes and wealth of households.

In terms of the number of households, we have discussed the effects of age, marital status, and ethnic origin on the number of households and concluded that each of these factors has contributed to the increase in number, and decrease in size, of households. This in turn will have led to increased demand for housing. Migration patterns will have dampened the effect.

Income effects on demand have been considered in terms of elasticities where international evidence has suggested that housing is income inelastic but that elasticities vary with the characteristics of the households. Real disposable income in New Zealand has fallen between 1981 and 1988 but expenditure on housing has risen both in real terms and as a percentage of total spending.

Evidence on price effects are less clear, but again demand tends to be price inelastic. The effects of inflation and a fall in inflation on demand have been discussed. Lower inflation will lower the outlay costs of housing but raise the economic cost. Real house prices have risen in the period since December 1979 but expenditure on housing has also risen.

The demand for *rental* housing depends on how much of the overall demand is directed into rental rather than home ownership. The process by which this is determined, is discussed in the following section. We also examine the division between private and public renters.

2.3 Tenure Choice

The demand for rental housing depends on both overall demand for housing and tenure choice. Once a household has decided how much housing services it wishes to consume it must decide whether to rent those services or to buy them. A renting household can rent from the public or private sectors. In this report we are concerned with private rental. Nevertheless we need to consider factors which lead renters to rent from the public sector and how this affects the characteristics of the private rental market.

Tenure choice depends on the preferences of the household and on the economic constraints they face. In this section, we first discuss the characteristics of the two tenures, and show how sociodemographic factors affect preferences between renting and owning. We show the characteristics of New Zealand tenants in the private and public sectors. Second, we summarise Chapman's (1981) model and show where some overseas models complement it, considering some of the implications for tenure choice.

2.3.1 Preferences : Characteristics of Tenures

Several studies have looked at how New Zealand households view the attributes of each tenure. Three studies are considered in this section.²⁰ The results of the HCNZ (1980) study are given in Tables 2.8 to 2.11.²¹

The advantages of homeownership can be seen as having financial and non-financial aspects.²² The first seven categories are essentially non-financial. Of these "free to manipulate environment" and "security of tenure" were both specified by 44 percent of respondents. Of the three other categories "financial security" was seen as most important with 58 percent specifying it.

20. HCNZ (1980), Synergy (1986) and Chapman (1981).

21. Note percentages do not add to 100 since respondents may give multiple responses.

22. Although factors termed "non-financial" often have wider "economic" underpinnings. The term financial, here refers to direct costs.

Table 2.8**Good Things About Ownership**

Category	Percent of Respondents
Free to manipulate environment (house and section)	44.0
Independence and/or privacy	28.0
Pride of ownership/achieving/ belonging	34.0
Security of tenure	44.0
Security - personal or general	12.0
Incentive to maintain	32.0
Miscellaneous	16.0
Makes financial sense - saving/ getting return on money	38.0
Investment or capital gain	16.0
Financial security/capital asset/family asset/permanence	58.0

No. of respondents : 50

Table 2.9**Bad Things About Ownership**

Category	Percent of Respondents
Possible zoning change/ neighbourhood deterioration	10.0
Hampers mobility	12.5
Miscellaneous	10.0
"Maintenance"(unspecified)/) time spent in maintenance/) problems getting it done/) responsibility for) maintenance)	45.0
Cost of Maintenance	40.0
Rates	45.0
Insurance costs	7.5
Mortgage Costs	15.0
Capital Costs/deposit	7.5

No. of respondents : 40 (10 gave no answer)

The non-financial problems associated with maintenance were specified as problems by 45 percent of respondents. The financial disadvantages were the cost of maintenance and rates. Only 15 percent specified mortgage payments as a disadvantage, although this will be sensitive to the level of interest rates at the time the survey was carried out.

Table 2.10**Good Things about Renting**

Category	Percent of Respondents
Mobility	23.8
Maintenance done for you/ no worry about cost	59.5
More leisure/less work by you	9.5
Acceptable for certain groups	2.4
Acceptable as temporary situation	7.1
Miscellaneous	11.9
No struggle for deposit/loan	7.1
Rates etc. someone else's worry	35.7
No sudden large expenses/ only pay rent	14.3
Cheaper/no struggle to pay off	11.9

No. of respondents : 42 (8 gave no answer)

"Mobility" was the most commonly cited non-financial advantage of renting. The main financial advantage was an absence of maintenance costs. Interestingly, "no struggle for deposit" and "no struggle to pay off" are specified by only 7.1 and 11.9 percent respectively.

Table 2.11**Bad Things about Renting**

Category	Percent of Respondents
Have to chase landlord for repairs	12.5
Work not for own benefit	16.7
No freedom to alter/decorate	18.8
Landlord may impose rules/ no privacy	8.3
Insecurity of tenure - may have little notice	33.3
Personality problems with landlord	6.3
Quality of accommodation	10.4
Miscellaneous	22.9
"Dead money" - nothing to show for it	58.3
No asset/no ownership	16.7
Rent can go up suddenly	14.6
Nothing to fall back on	2.1

No. of respondents : 48 (2 gave no answers)

The main non-financial disadvantage of renting was "insecurity of tenure" with "no freedom to alter" and "work not for own benefit" also ranking above 15 percent. "Dead Money" is the main financial disadvantage of renting. No asset is gained out of paying rent.

A Christchurch study (Synergy, 1986) looked only at renting. On the advantages, it was broadly in agreement with the Housing Corporation report. It showed lack of maintenance and rates, and mobility as the major advantages of renting. Interestingly, it shows independence and higher standard of housing as advantages of renting. In contrast, the Housing Corporation study showed them as advantages of homeownership and disadvantages of renting. The disadvantages of renting were again seen primarily as, no long term benefits from rent payments, and insecurity of tenure.

Ralph Chapman's (1981) survey of Auckland tenants also looked at these attributes, and his results largely confirmed those of the Housing Corporation and the Christchurch study. Among the good features of owning, his survey added "appropriateness for a family".

All three surveys showed that many people are unwilling renters, so clearly preferences are only explain part of tenure choice. Economic factors are binding for many people. Although each of these surveys is small and limited in location (in two cases), because they confirm each other's results they have reasonable credibility and confirm intuitive expectations.

2.3.2 The Effect of Demographics on Tenure Choice.

Differences in preferences can be partly explained by sociodemographic variables. Economic constraints also vary with sociodemographic factors. This section outlines tenure profiles suggesting explanations, in terms of preferences and economic factors, for the patterns observed. Since most renters have been found to be "unwilling tenants", economic factors are probably the most significant.²³

23. The Housing Corporation (1980) found that 86 percent of renters would prefer to own. See also, Chapman (1981).

The advantages of renting can be expected to appeal to people who want to be mobile and/or are uncertain about their future. These could be young people, single people, people who are recently separated or divorced or people who have recently migrated either internally or from overseas.

On the other hand, the advantages of home ownership such as security of tenure, independence/privacy, and investment advantages will tend to appeal to people whose planning horizon is long and fairly certain. These could be people with children, older people, and people with capital to invest.

The seven sociodemographic factors we consider are age, gender, marital status, ethnicity, income, employment status and migration.

Table 2.12 shows that private renting was a strongly decreasing function of age (in 1986). In both 1981 and 1986 most private renters were in the age group 20 to 29. This largely reflects life cycle preferences about mobility and the relatively lower incomes and lack of accumulated wealth for the younger age groups.

Public renting is far less closely associated with age. A large group is concentrated in the 20s and 30s which is probably related to families with children. Another significant group is the age group 65 and over which reflects local authority and housing corporation pensioner flats. On the whole, public rental is far more evenly distributed across age groups but exceeds private renting for those over 60. This means that public renting is less clearly associated with the economic factors which are correlated with age and may reflect the fact that once a household gains a public house they have a secure tenancy. On the other hand, it may mean that some people's incomes do not rise significantly during their lifetimes and these are the people who are housed by the government. If the government did not provide housing, these people would need to be housed in the private rental sector. This would increase demand for larger family homes in that sector.

Table 2.12

Age of Tenants

	Private Rental			Public Rental		
	% of Private Renters	% of Heads of Household in Age Group		% of Housing Corporation Renters	% of Heads of Household in Age Group	
	1981	1986	1986	1981	1986	1986
15 - 19	6	5.2	62.9	1	0.8	6.1
20 - 24)		25.0	54.1	)	7.7	10.3
25 - 29)	46	21.5	28.5	) 21	13.3	10.7
30 - 39	21	22.8	13.8	21	22.2	8.2
40 - 44)		6.4	9.4	)	7.5	6.7
45 - 59)	19	11.9	7.0	) 29	17.8	6.5
60 - 64)		2.2	4.1	)	6.9	7.8
65 and over)	9	4.9	3.4	) 28	23.8	10.2
Total	101	100.0	-	100	100.0	-

Source: Census (1986) and HCNZ (1984).

Table 2.13 shows in both private and public sectors, female headed households are more likely to rent than male headed households. This is particularly marked for public renters. The majority of renters are still male headed households.

There is no reason to believe that female headed households are more likely to prefer the mobility allowed by renting. Women who are heads of households are more likely to be separated or divorced. In the 1986 census, about 42 percent of female headed households were in these groups compared with only 19 percent of male headed households. The implications of this will be discussed later.

As reported earlier, Mayo (1981) found that "female headed households, other things being equal, spend more than do male headed households". Therefore economic factors are probably the main explanation for observed differences. Women's wages are

significantly lower than men's, on average. Women heads of household are more likely to be solo parents with child caring responsibilities which lead to greater expense and less ability to earn money.

Table 2.13

Sex of Head of Household 1986

Sex	Private Rental Percentage of		Public Rental Percentage of	
	Renters	Households	Renters	Households
Male	60.8	21.86	50.6	6.8
Female	39.2	28.44	49.4	13.4

Source: Household Expenditure and Income Survey 1985-86 and 1986 Census Series C Report 12.

Although the largest groups of private renters are single and married people, the groups which are most likely to rent are single and separated people. (See Table 2.14). Married people are probably a large group simply because they make up a large proportion of households.

The two largest groups of public renters are married and widowed people. The groups most likely to be public renters are separated, divorced, and widowed people. The first observation probably reflects Housing Corporation and Local Authority allocation procedures. The second will be because separated, divorced and widowed people are more likely to face difficult financial circumstances, particularly if they have children and are women.

Table 2.14**Marital Status - HEIS Legal Definition**

	Private Rental		Public Rental	
	Percent of Renters	Households	Percent of Renters	Households
Single	34.4	56.7	15.8	9.7
Married	42.8	16.8	41.9	6.2
Separated	9.2	40.97	10.9	18.0
Divorced	6.5	25.10	10.0	14.4
Widowed	7.1	14.48	21.5	16.5

Source: Household Expenditure and Income Survey 1985-6 and 1986 Census Series C Report 12.

Preferences and economic circumstances also differ between groups with different cultural backgrounds and ethnic origins. Table 2.15 shows a much higher percentage of Maori and Polynesian households rent in both private or public sectors. The factors causing this are likely to be primarily economic. Maori and Polynesian wages are lower on average than overall wages. Maori and Polynesian populations are younger so will tend to have lower incomes and less wealth accumulated. The percentage of renters who are "European and other" is falling while the Maori and Polynesian percentages are both rising.

Table 2.16 shows an ambiguous relationship between the propensity to rent in the private sector and income level. Certainly the four lowest income groups have high propensities to rent. However, this is also true of a number of middle income groups. The three cohorts with the highest incomes have below average propensities.

Since State rental units are targeted at lower income households, when we look at renters as a whole, the relationship with income is much clearer, propensities to rent declining as income rises.

Income has its affect on tenure choice in two main ways. First, it allows the household to make mortgage repayments. Second, it enables the household to accumulate wealth for a deposit. These factors lead to reduced renting at higher income levels. The economic factors affecting tenure choice are discussed in the next section.

Table 2.15

Ethnicity of Renters

	% of Ethnic Group				% of Renters			
	Private 1981	Rental 1986	Public 1981	Rental 1986	Private 1981	Rental 1986	Public 1981	Rental 1986
Maori	20.36	20.78	25.2	24.2	8.58	9.85	16.2	18.9
Polynesian	25.22	21.46	30.5	30.6	2.81	2.92	5.8	6.8
European and Other	13.70	12.94	8.0	6.8	88.61	87.23	78.0	74.3
Total	14.28	13.60	9.4	8.4	100.00	100.00	100.0	100.0

Source: Maori data from: Series C Report 9 Table 32 1986 Census, Vol. 8A p.141 Table 63 1981 Census. Polynesian data from: Series C Report 10 Table 8 1986 Census, Vol.8b p.114 Table 55 1981 Census

Table 2.16

Income of Renters; 1986

	% of Renters		% of Income Range		Total
	Private	Public	Private	Public	
Nil or loss	0.3	0.1	24.4	3.4	27.8
1 - 1000	0.3	0.3	17.0	11.1	28.1
1001 - 2500	0.3	0.4	16.7	12.9	29.6
2501 - 5000	1.0	1.2	18.3	14.1	32.4
5001 - 7500	4.5	15.7	9.9	21.0	30.9
7501 - 10000	5.1	10.1	13.4	16.4	29.8
10001 - 12500	7.8	10.0	13.1	10.3	23.4
12501 - 15000	6.0	4.8	18.0	8.7	26.7
15001 - 17500	6.5	5.1	16.5	7.9	24.4
17501 - 20000	6.9	4.8	18.0	7.7	25.7
20001 - 25000	12.0	9.1	15.3	7.1	22.4
25001 - 30000	10.0	6.8	15.2	6.4	21.6
30001 - 35000	7.7	4.8	14.1	5.4	19.5
35001 - 40000	5.6	3.4	12.9	4.8	17.7
40001 - 50000	7.3	4.0	12.0	4.0	16.0
50001 and over	6.1	2.4	9.2	2.2	11.4
Total	100.0	100.0			

Source: Series C, Report 12, Table 8, 1986 Census.

It is interesting to consider the effect of employment status on tenure choice. This is shown in Table 2.17. Students, people seeking full time work and those on ACC temporarily have a high rental rate, while those on invalid or sickness benefits have a low rate. This again reflects the likely age and income position of these groups. Lastly, those who have household duties have a fairly low rental rate showing the effect of marital status and maybe children on preferences.

The highest percentage of public renters are those who are working. Retired people and those who do household duties (ie. probably solo parents) also make up a significant proportion of public renters. A high percentage of people on invalid or sickness benefits are publicly housed, as are unemployed people and people doing household duties.

Work status obviously has implications for long and short term income.

Table 2.17

Employment Status of Head of Household: 1986

	Percent of renters		Percent of status	
	Private	Public	Private	Public
Working >20 hrs	75.3	42.9	25.4	5.4
Seeking Full time Work	3.6	2.8	45.9	13.3
Retired	7.5	24.3	7.2	8.9
Full-time student	2.1	0.3	84.0	4.7
Household duties	9.5	25.6	20.8	21.0
On ACC temporarily	0.5	0.3	36.8	7.5
Invalid/sickness	0.7	3.7	15.9	33.5
Other	0.9	0.0		

Source: Household Expenditure and Income Survey 1985-6

People who have recently moved can be expected to be more likely to rent while they re-establish themselves. Unfortunately we could find no data on the proportion of tenants who have recently moved and rely on evidence from interviews with real-estate agents to verify this.

2.3.3 The Economics of Tenure Choice

The number of unwilling tenants found by the Housing Corporation (1980) and Chapman(1981) indicate that economic factors are crucial in determining tenure choice for many people.

Section 2.2 looked at the factors affecting overall demand for housing. The demographic factors affecting tenure choice were considered in Section 2.3.2. This section investigates the economic factors affecting tenure choice and how these have changed over time. Some important aspects of a New Zealand model of tenure choice are summarized and discussed and then evidence from some international studies is used to supplement the theoretical analysis. Finally, we look at estimates of affordability of home ownership and renting over time.

(a) Chapman's Model of Tenure Choice.

Chapman's model of tenure choice assumes that households maximise their utility function over their planning period subject to a number of constraints. His framework is similar to many models used in overseas studies.²⁴ The form of the utility function, (ie. the household's preferences) depends on the sociodemographic characteristics of the household as discussed in the previous section.

Three major constraints restrict households' choices. The outlay constraint is that current outgoings on housing cannot exceed current income.²⁵ Outlay prices are defined as the current or short-run costs of owner-occupation (borrowing costs, rates and other operating expenses) or of renting (actual rent) which the household will have to meet out of current income (Chapman, 1981, p.2).

The second constraint, the economic constraint, is longer term. The present value of expenditure, measured by economic prices, on housing over the household's planning period, cannot exceed the

.....
24. See eg. Hendershott and Schilling (1982). A mathematical summary of Chapman's model is given in the appendix to this chapter.

25. In practice this may not hold. For example, in the short-term individuals may run down their wealth if current income is insufficient.

present value of the household's income over the planning period. Economic prices are the true user cost of housing when looked at in an investment sense rather than as a cash flow. Thus, the economic price of home ownership takes into account the possible capital gain on a dwelling investment and the uncertainty of this gain, the opportunity cost of a householder's equity, and transactions costs, all assessed over the household's planning period. The economic price of renting is simply predicted rent payments over the planning period, discounted to present value.

The third constraint is that a household which buys must have enough wealth for the deposit. The amount required depends on the flexibility of capital markets and credit availability. An increase in the size of loan offered will increase owning. This is because of its effect on the wealth and outlay constraints. It moves the costs into the future.

There are other less central constraints. In the model the household cannot rent and buy simultaneously. Also, capital markets may place additional constraints on outlays relative to income.

(b) The Price of Home-Ownership

The economic price of housing is divided into five categories. These partly depend on unmeasurable variables which are specific to the particular household, so estimates of the price have some degree of error. The first is the deposit made by the buyer. A household on the margin between buying and renting will probably need to take out a first mortgage of 66 percent and maybe a second of 16 percent. The size of the deposit the household can make does not have a large effect on the economic price but will have a large impact on the outlay cost.

The second term is the negative of the present value of the dwelling's sale price.²⁶ That is, the nominal value of the dwelling at the end of the planning period discounted by the household's discount rate and uncertainty about the dwelling's value at that time. The household's discount rate depends partly on its marginal tax rate.

.....
26. Expressed as a negative since this is the return (rather than cost) to the houseowner when the house is sold.

A household with a higher marginal tax rate has a lower cost of capital. The level of uncertainty used to discount the capital gain (loss) depends on how risk averse the household is.

The third aspect of economic cost is the present value of the debt still remaining at the end of the household's planning period. Fourth, outlay costs, such as borrowing costs, rates and other costs are estimated for each period over the planning period and discounted to present value. Finally, transfer costs on purchase and sale both raise the economic cost of homeownership.

Chapman estimates the economic cost of homeownership as a fraction of dwelling price, for each year from 1966-1980. A selection of these results is reported in Table 2.18.

The outlay price is simply defined as borrowing costs plus rates plus other operating costs. An individual's borrowing costs depend on the fraction of dwelling value borrowed and the mortgage terms as well as the price of the dwelling. These can be estimated from aggregate figures but are uncertain over time. The other factors, such as rates, maintenance, and insurance, are fairly easy to predict and on the whole Chapman estimates there will only be a small overall error.

Some of his estimates of the outlay price as a fraction of dwelling price between 1966 and 1980 are given in Table 2.18.

The economic price of home ownership falls as the household's planning period gets longer, the household discount rate falls, and/or if the uncertainty factor is low. It rises if the opposites of these are true. Outlay costs are low if the fraction borrowed, interest rate/mortgage repayments, and maintenance costs and rates, are low.

Table 2.18

**Comparison of the Economic and Outlay Prices of Buying
as Fractions of Dwelling Price (EPBF and OPBF)**

Year	Single table mortgage arrangement		Table first, flat 2nd mortgage arrangement	
	EPBF/T for T=5	OPBF	EPBF/T for T=5	OPBF
1966	0.075	0.101	0.078	0.104
1967	0.079	0.103	0.082	0.105
1968	0.079	0.104	0.082	0.107
1969	0.078	0.104	0.081	0.107
1970	0.077	0.104	0.080	0.108
1971	0.073	0.104	0.077	0.108
1972	0.068	0.106	0.072	0.110
1973	0.050	0.106	0.054	0.111
1974	0.043	0.107	0.047	0.112
1975	0.045	0.108	0.050	0.114
1976	0.054	0.115	0.058	0.118
1977	0.067	0.122	0.072	0.126
1978	0.077	0.123	0.082	0.127
1979	0.094	0.123	0.100	0.131
1980	0.098	0.124	0.104	0.133

Note: T = length of household's planning period in years.

The economic price of buying fell significantly between 1967 and 1974 under both mortgage arrangements and then rose steadily to a much higher level than previously in 1980. In contrast, the outlay price of buying rose steadily throughout the period with a particularly rapid increase between 1975 and 1977. The economic price is consistently lower than the outlay price.

(c) The Price of Renting

Both the economic and outlay prices of renting are very closely related to actual rents. Equilibrium market rents depend on the interaction of supply and demand factors. Supply effects on the rental market are discussed in the next chapter.

The first part of the economic cost is the present value of estimated future rents. Chapman adds an extra term here, the net present value of investing the deposit the household would have used if they had bought. This is however an error. This term is the opportunity cost of the equity used to buy the house and is already taken into account in the economic cost of buying. To include it here is double counting. The two opportunity cost measures he uses are different. One is the household's discount rate and the other is the after tax rate of return. By removing the equity cost from the rental side we are assuming the first measure. Because of this error his rental estimates are likely to be biased upward.

The economic cost of renting depends on estimated rents over the planning period and the household's discount rate. The outlay price of renting is the actual rent paid per period.

Henderson and Ioannides (1983) show that renting is always inefficient compared to owner occupation because of a "rental externality". This arises because tenants choose the rate of utilisation of properties but do not pay the full cost of maintenance so have an incentive to overutilise the property. The landlord passes on the extra costs in rents. This also causes greater uncertainty for landlords' maintenance costs and thus lowers the attractiveness of landlording, raising rents further.

The price of renting involves less unknown variables and therefore it is easier to predict the future costs. Therefore risk averse people may tend towards renting rather than owning.

Estimates of the economic and outlay prices of renting from 1966-1980 are presented in Table 2.19.

Table 2.19**Estimates of Economic and Outlay Prices of Renting
as a Fraction of Dwelling Value (EPRF, OPRF) 1966-80**

Year	EPRF/T where T=5	OPRF
1966	0.088	0.083
1967	0.090	0.085
1968	0.088	0.088
1969	0.089	0.089
1970	0.089	0.089
1971	0.085	0.085
1972	0.088	0.087
1973	0.081	0.080
1974	0.071	0.068
1975	0.073	0.068
1976	0.085	0.077
1977	0.087	0.079
1978	0.087	0.082
1979	0.095	0.089
1980	0.099	0.095

The economic price of renting as a fraction of dwelling price was fairly constant in the late 1960s, fell in the mid 70s and then rose above its highest level by 1980. The outlay price of renting as a fraction of dwelling value showed a similar pattern while always being equal to or below the economic price.

The economic price of buying relative to renting has been consistently below unity falling significantly in the mid 1970s and coming very close to unity by 1980. The bias in the estimates of the economic cost of renting mean that these values should be lower and thus owning even more attractive. In contrast, the relative outlay price of buying has exceeded unity rising steeply in the mid 1970s

and then falling slightly toward 1980. Thus in this period, buying is cheaper than renting in the long run but more expensive in the current period (See Figure 2.3).

Table 2.20

The Relative Economic Price of Buying and the Relative Outlay Price of Buying (RELEPB and RELOPB), 1966-80.

Year	Single table mortgage arrangement	
	RELEPB T=5	RELOPB
1966	0.860	1.209
1967	0.884	1.205
1968	0.894	1.180
1969	0.875	1.170
1970	0.860	1.171
1971	0.866	1.219
1972	0.775	1.223
1973	0.616	1.337
1974	0.607	1.572
1975	0.615	1.593
1976	0.641	1.496
1977	0.770	1.538
1978	0.884	1.497
1979	0.992	1.381
1980	0.996	1.307

(d) Relative Tenure Prices

To extend these observations into the 1980s we have taken a measure of the outlay price of renting which will also proxy for the economic price of renting. The economic and outlay prices of buying are clearly more difficult to estimate and are beyond the scope of this report (See Table 2.21 and Figure 3.1).

These series show the same fall in the cost of renting in the mid 1970s as Chapman's analysis did. The effect of the rent freeze starting in 1982 can be discerned with falls in cost in all regions excluding Dunedin. However the effect does not last and generally the cost is high throughout the 1980s. There are some cross sectional differences. Hamilton seems to have consistently lower rents as a fraction of dwelling value while Dunedin and Wellington have higher costs in recent periods.

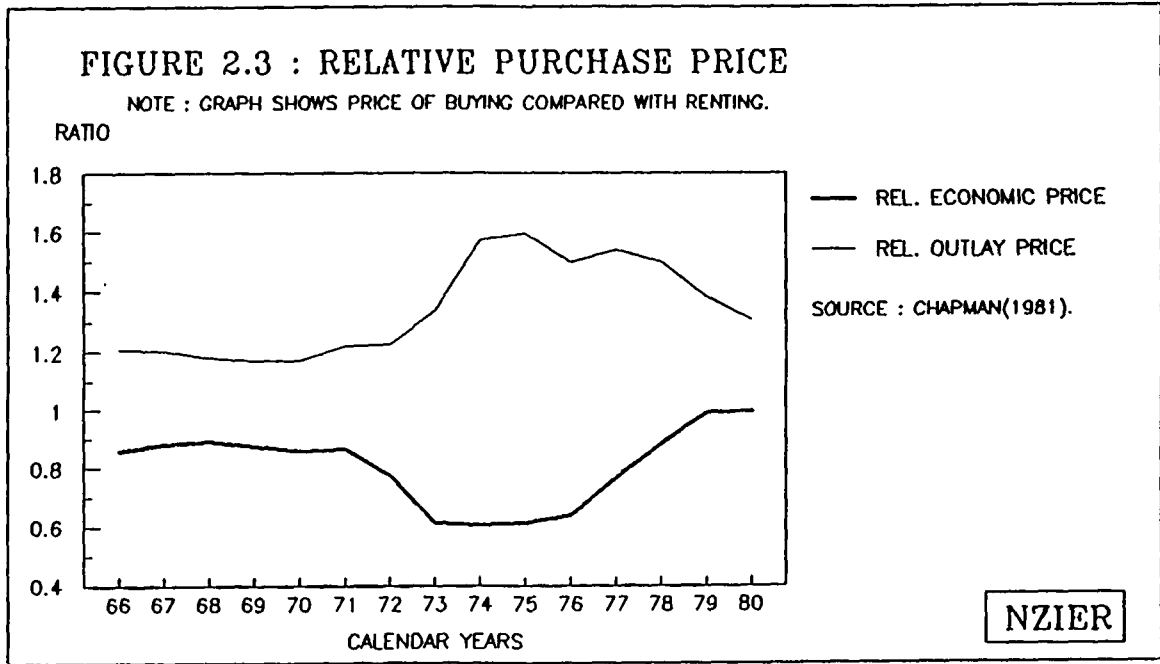


Table 2.21

Rents as a Fraction of Dwelling Value by Region (As at December).

Year	Region				
	Auckland	Hamilton	Wellington	Christchurch	Dunedin
1970	0.090	0.061	0.113	0.091	0.072
1971	0.124	0.083	0.108	0.109	0.086
1973	0.104	0.086	0.108	0.087	0.098
1974	0.083	0.067	0.078	0.069	0.074
1975	0.084	0.062	0.092	0.071	0.083
1976	0.076	0.070	0.084	0.069	0.087
1977	0.076	0.075	0.082	0.070	0.086
1978	0.081	0.071	0.084	0.072	0.081
1979	0.082	0.068	0.106	0.073	0.082
1980	0.098	0.074	0.123	0.075	0.093
1981	0.100	0.084	0.134	0.107	0.100
1982	0.091	0.078	0.122	0.092	0.104
1983	0.091	0.089	0.109	0.096	0.101
1984	0.106	0.085	0.106	0.091	0.106
1985	0.093	0.084	0.091	0.086	0.093
1986	0.099	0.092	0.111	0.081	0.120
1987*	0.113	0.090	0.109	0.098	0.096

* June

(e) Implications for Tenure Choice.

In Chapman's model, it is clear that if the economic price of buying a minimum dwelling is more than the household chooses to allocate to housing over the planning period, then the household will rent. Similarly they will rent if the outlay price required to buy the minimum dwelling in the current period is more than they can

afford. The other constraint which can restrict a household from buying is the wealth constraint. If the household has insufficient wealth to make a deposit on a minimum dwelling they must rent.

It is assumed that all households can afford to rent the minimum dwelling. If they cannot, they are either absorbed into other households or are physically homeless. These are the extreme solutions. For most households, tenure choice depends on the relative economic price of buying a certain quality of accommodation compared to renting it.

However, even if they would prefer to buy, they may be unable to afford that quality of house because of the outlay cost and will have to trade off between buying a lower quality house and renting a higher quality house. If they have high income but still cannot afford the deposit for the quality of dwelling they want, they must again trade off high quality renting against lower quality buying. The outlay and wealth constraints arise from an imperfect capital market. When tradeoffs are required, the way the decision will be made depends on the household's utility function.

Henderson and Ioannides (1983) consider the tenure choice decision in terms of a consumption decision and an investment decision. The household's utility function combined with its economic constraint determine how much housing the household will want to consume over its planning period. In their model, investment demand depends on their desired saving level over time and their preference for a risky investment such as housing.

Henderson and Ioannides argue that if a household's investment demand exceeds its consumption demand for housing it will always owner occupy. Chapman shows that this will depend on whether they can afford the outlay payments and have sufficient wealth for the deposit. These two things partly determine their investment demand, so can probably be taken for granted with a reasonably flexible capital market.

If the household's consumption demand exceeds its investment demand the result is less clear. It may be best for the household to distort its investment demand to owner occupy, because of the rental externality which lowers the efficiency of spending on housing, and

the tax advantages of owner occupation. There will however be a group which chooses to rent because they wish to consume more housing than they choose (are able to) invest in. These may be people with a high present value of income but with a strong tilt toward the future, such as students and young professionals.

Progressive taxation will reduce the tendency of people with high expected future incomes to rent by accentuating the tax advantages of owner occupation. Higher marginal tax rates lead to a lower user cost of capital for housing. On the other hand, capital market imperfections will reduce ownership among these people because they will have to give up a large amount of present consumption to cover the immediate outlay costs of owning while the benefits will come at a time when they have much higher wealth.

This analysis suggests that household's with low prospects of increased income in the future should choose to own because their investment demand is as high as their consumption demand. However it is clear that because capital markets are imperfect they are often unable to do this. Chapman finds that the wealth constraint is binding on many households. In a period of inflation the outlay constraint may become prohibitive because real costs cannot be kept constant. Many household's find themselves unable to buy a minimum dwelling and are forced to rent although it is less efficient use of their resources in the long run.

Uncertainty can also have decisive effects on tenure choice. Economic prices are difficult to predict, so even though ex post, housing can be seen to be a good investment, a risk averse household may choose to invest in other safer investments and rent rather than owner occupy. Rosen, Rosen and Holtz-Eakin (1984) find that "uncertainty over the course of relative prices has significantly depressed the aggregate proportion of homeowners" (p. 415). Households also face uncertainty about their future incomes. Households which are more risk averse and are uncertain about their future will tend to rent. This effect was discussed in the demographic section.

Therefore, tenure choice is a consumption and an investment decision. The choice of tenure depends on the household's expected pattern of income over time, housing prices, externalities of renting, tax advantages of owner occupation, and imperfections in capital markets which may make the wealth and outlay constraints binding.

While Chapman's estimates show how the cost of housing as a fraction of dwelling value has changed over time, they do not show how the absolute cost of housing has changed relative to household incomes. Table 2.22 below shows how average mortgage repayments have varied as a proportion of average incomes.²⁷ (These are a proxy for outlay costs).

This measure of the affordability of home ownership shows that outlay costs as a proportion of income rose sharply in the mid 1970's, fell again in 1978 then rose to a new peak by 1982. Since then they have stabilised at around 50 percent (assuming a 25 percent deposit) with a small dip in 1987 possibly associated with the introduction of "Homestart". Costs are naturally a lot lower with a higher deposit.

The cost of renting relative to income has also shifted over time. Table 2.23 shows a selection of ratios of rent to average male ordinary time wages over the same period.

27. These represent the cost in the first year of buying a new modal house (New Zealand Institute of Valuers). This is not a minimum dwelling because of its size and standard and because it is new. Male ordinary time wages may not be an accurate assessment of household income because many spouses work and overtime is common. On the other hand, many households with one income earner earn considerably less than the average wage. Also, these proportions relate to the first year of the mortgage. In a period of high wage inflation, mortgage repayments rapidly fall as a proportion of income. Chapman's measure of the economic cost over a 5 year planning period is considerably lower while showing the same upward trend over the late 1970s.

Table 2.22**Mortgage Repayments to Income Ratio
(For the Average Male Ordinary-Time Wage Rate)**

As at March	Ratio of Payments to Income		Chapman's Measure
	Deposit 10%	Deposit 25%	
1973			.22
1974	.40	.28	.21
1975	.51	.38	.21
1976	.54	.41	.24
1977	.65	.50	.28
1978	.49	.38	.29
1979	.60	.46	.31
1980	.60	.47	.30
1981	.66	.52	
1982	.75	.59	
1983	.66	.51	
1984	.64	.50	
1985	.62	.50	
1986	.66	.50	
1987	.63	.44	
1988	.71	.52	

Source: Building and Construction Annual Review - December 1985
Ministry of Works and Development.

Table 2.23

Rent to Income Ratio
(For the Average Male Ordinary-Time Weekly Wage)

Year	Auckland	Wellington	Christchurch
1979 ¹	30.8	30.9	22.2
1980	31.7	33.7	21.2
1981	43.5	37.0	28.2
1982	42.2	40.5	34.1
1983	40.2	40.1	35.1
1984	46.9	43.3	39.5
1985	43.7	44.8	37.9
1986	50.7	44.4	36.8
1987	59.4	45.9	36.7
1988	60.7	50.3	41.8

Source: Housing Corporation Rent Survey, 3bdr houses, rent at May. Quarterly Employment Survey (Feb).

1. Rent at Nov, wages at October.

In all three areas, affordability of rental has fallen significantly over the last 10 years. In both Auckland and Christchurch, it now takes nearly twice the proportion of income to pay rent that it did in 1979. Comparing these figures with those in Table 2.22, it is clear that the affordability of rental has fallen far more rapidly than the affordability of home-ownership.

These results may be biased upward because they are based on a newspaper survey which only looks at properties which are changing hands. Many cheaper properties will have established tenants or will be passed on by word of mouth.

2.3.4. Summary

A household's tenure choice depends on their preferences and the economic constraints they face. While age, sex, marital status, ethnicity and employment status have fairly clear relationships with tenure choice, income has a less clear effect. Thus preferences and other economic constraints play an important role. .

In economic terms, tenure choice depends on a consumption decision and an investment decision. Demand for housing as a consumption good depends on income, relative prices, and consumer preferences. Demand for housing as an investment depends on the pattern of expected income streams over time, risk aversity and relative returns on other investments. If investment demand exceeds consumption demand then the household goes into home ownership while if the opposite is true the household is more likely to rent.

Appendix to Chapter 2.
Outline of Chapman's Model

$$\text{Max } U = U(q_1, q_2)$$

q_1 = quantity of rental housing services
 q_2 = quantity of owner occupied housing services

subject to

$$y^c \geq p_1^0 \cdot q_1 + p_2^0 \cdot q_2 \quad (\text{Outlay Constraint})$$

y^c = first period income
 p_1^0 and p_2^0 are first period outlay prices for rental and owner occupied housing respectively.

$$y^d \geq p_1^e \cdot q_1 + p_2^e \cdot q_2 \quad (\text{Economic Constraint})$$

y^d = present value of income discounted over the planning period.
 p_1^e and p_2^e are economic prices.

$$q_1 \cdot q_2 = 0 \quad (\text{Mutual Exclusivity Constraint})$$

ie. the household cannot rent and buy housing services simultaneously.

$$w \geq (1-f)P \cdot Q_2 \quad (\text{Wealth Constraint})$$

if $q_2 > 0$ (ie. household buys)

w = wealth
 f = fraction of dwelling value borrowed
 P = price of housing stock per unit
 Q_2 = quantity of housing stock in units

Clearly, if Q_2 is a minimum standard dwelling and this constraint is binding, the household is forced to rent.

$$\text{b.c. } y^c \geq p_2^0 \cdot q_2 \quad (\text{Commitment Constraint})$$

if $q_2 > 0$

b = maximum proportion of current income which could be allocated to mortgage payments.

This only binds if the bank has a lower mortgage outgoings to income ratio requirement than the household would choose.

and $q_1 \geq q_1^{\min}$ if household rents

$q_2 \geq q_2^{\min}$ if household buys

The economic price of ownership in present value terms is:

$$EPB = P_0(1-f_0) - P_T(1+r_d+u)^{-T} + f_T P_T(1+r_d)^{-T} \\ + \sum_{t=1}^T (BC_t + R_t + X_t)(1+r_d)^{-t} + T_0 + T_T(1+r_d)^{-T}$$

P_0, P_T = purchase and sale price of dwelling

f_0, f_T = fraction of dwelling price borrowed, at purchase and sale

r_d = household's discount rate

u = uncertainty factor

BC_t = borrowing (mortgage) cost for year t

R_t = rates cost for year t ,

T_0, T_T = transfer costs at purchase and sale.

The economic price of renting as a fraction of dwelling value is defined as:

$$EPRF = \frac{\left\{ \frac{EAR_1}{P_0} (1+r_d)^{-1} + \frac{EAR_1}{P_0} (1+s_0)(1+r_d)^{-2} + \dots + \frac{EAR_1}{P_0} (1+r_d)^{-T} \right\}}{\left\{ (1-f_0) - \sum_{t=1}^T r(1-f_0)(1+r_d)^{-t} - (1-f_0)(1+r_d)^{-T} \right\}}$$

EAR_1 is the estimated actual rent for period one.

s_0 is the estimated relevant rate of growth of rents.

r is the household's after tax rate of return on its best alternative investment.

3. SUPPLY OF RENTAL ACCOMMODATION

This section examines a range of issues relating to the supply of residential rental accommodation by the private sector. Specifically, we examine the characteristics of landlords and of rental properties and the rate of return on rental units, and attempt to identify the range of factors influencing the supply of rental housing.

3.1 Landlord Characteristics

There is no comprehensive, good quality database from which a profile of landlords can be developed. Published Census data provides only a distinction between broad categories of landlord without detailing any of the characteristics of those landlords. In principle both personal income tax data and Household Income and Expenditure Survey data identify individuals who receive rent payments. However there is no way to distinguish residential from commercial rents and by definition companies are excluded from both sources. Drawing on the Census, Table 3.1 shows only that private landlords owned just under 60 percent of the total rental stock in 1986, a slight increase since 1981.²⁸ Although the Census does not distinguish between individuals and companies, it would appear that most landlords are individuals. The main evidence is Chapman's (1981) small survey of 74 landlords of which 75 percent were individuals, 15 percent partnerships and 10 percent companies. Perry (1980) surveys just 32 landlords, but his results are close to those of Chapman.

Our primary sources of information are two surveys carried out for the National Housing Commission. Synergy (1986) examines both landlord and tenant characteristics in the Christchurch urban area, while Lehrer (1984) considers only the case of landlords in Auckland. To a lesser extent, Chapman's less detailed study provides some insights into specific landlord characteristics.

28. Earlier census years provide no similar breakdown of landlord categories.

Table 3.1

**Number of Private, Rented Dwellings
by Category of Landlord**

	1981		1986	
	Number	Percent	Number	Percent
Private Person/ Company	142,884	56.5	148,809	59.5
Housing Corporation	57,045	22.5	56,091	22.4
Other Govt. Dept.	21,786	8.6	17,739	7.1
Local Authority	16,203	6.4	16,524	6.6
Not Specified	<u>15,135</u>	<u>6.0</u>	<u>10,731</u>	<u>4.3</u>
TOTAL	253,053	100.0	249,894	100.0

Source: Census, 1986, Series C Report 11; Census 1981, Vol. 10.

Unfortunately, results from these studies are of limited value.²⁹ They involve relatively small sample sizes (Synergy 73, Lehrer 138, Chapman 74) and hence may not provide statistically significant information. It is quite possible that those who choose to reply to the postal questionnaires used in each case are not representative of the overall landlord population. Nevertheless in the absence of any other database they do provide some general clues about the supply side of the rental housing sector.

29. Perry's (1980) survey is too small to draw many conclusions from but generally his results are consistent with the other studies.

3.1.1 Basic Characteristics

A summary of the main results from the Lehrer and Synergy studies is given in Table 3.2. In general the results are similar. A disproportionate number of landlords are male and are frequently middle-aged and married. Over half have dependents, with the proportion who are European roughly similar to that of the population as a whole.

Questions on income are particularly likely to be inaccurate in surveys of this type. Both reports indicate that the total gross incomes of landlords are above average but not especially high. Synergy indicates just on half of all landlords had incomes between \$20,000 and \$30,000 in 1985 (with one third earning less than \$20,000) when, for the population overall, the average annual income was around \$17,000 to \$18,000.³⁰ Lehrer provides only a median total income of \$18,000 for 1983. This compares with a population wide average annual income of between \$16,000 and \$17,000 during that year. Both reports speculate that respondents are probably understating their total income. Notwithstanding that, the broad indication is that landlords are not usually especially high earning individuals.

A high proportion of landlords are in some form of paid employment: 62 percent in the Synergy survey and 77 percent in the case of the Lehrer study (of which most were employed full-time). Unfortunately it is not entirely clear what percentage of the respondents would term themselves "professional" landlords. Synergy found only two respondents out of 73 who derived all of their income from rent, however others may have been landlords more or less full-time but may have had other (more minor) sources of income. Lehrer has 23 percent of respondents earning only rental income (which in his study is the difference between the total sample and those defined as being in paid employment).

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30. Based on the Department of Labour's Quarterly Employment Survey

Table 3.2

**Summary of Main Results from Two Studies
on Landlord Characteristics**

Characteristics :	Synergy (1986) (Christchurch)	Lehrer (1984) (Auckland)
Sex	66% male 34% female	N/A
Age	47% aged 35-54 yrs	47 yrs average age
Marital Status	75% married	77% married
Dependents	56% with dependents	N/A
Ethnic	92% European	90% European
Total Gross Income	17% \$40,000 +) 49% \$20-30,000) (1985) 34% \$ 0-19,000)	\$18,000 median (1983)
Occupation	37% professional 26% managerial 23% skilled manual 14% other _	N/A
Employment	62% in paid employment	66% in FT employment
Location	40% outside ChCh	N/A
Yrs as Landlord	9 yrs average 6 yrs median	9.7 yrs average
No. of Units	2.3 average ¹	4.5 average 2.0 median
Type of Unit	50% single house 20% multiple in house 20% flats	22% single house 17% multiple in house 54% flats
Property Age	N/A	28.9 yrs average
Maintenance	\$1600 per unit average	5.8 hrs per week average
Rent Levels	14% \$0-49 pw 52% \$50-99 pw	N/A
Rental Income (Net)	76% \$0-10,000 p.a. (in 1985)	\$3,477 average) (1983) \$ 700 median)
Rental Income/ Total Income	27% average	15% estimated average
Relationship with Tenants.	86% "Very Good" or "Good"	82% "Excellent" or "Good"
Vandalism Experienced	23% yes	56% yes
Sample Size	73	138

1. Excludes one landlord who owned 82 units.

Synergy provides an occupational breakdown of those in paid employment. The bias is towards managerial (26 percent) and other professional (37 percent) occupations. Just under a quarter of those working defined themselves as being in skilled manual trades, while the remaining 14 percent were split between technical (5 per cent), clerical (7 percent) and semi-skilled workers (2 percent). Anecdotal evidence suggests that many real estate agents may be residential landlords as well as administering properties on the behalf of other individuals. They are unlikely to show up in surveys of this type. Lehrer shows that almost half of those who are in paid employment (other than landlording) are self employed. This obviously helps facilitate part-time landlording. In this context, not surprisingly, 72 percent of the Synergy respondents administered their own property. The remainder used either real estate agencies (15 percent) lawyers and accountants (6 percent), or family and friends (7 percent).

It would appear that most landlords have been involved in the market for a relatively long period (average of 9-10 years)³¹ and own only a few units, although the distribution is skewed. Synergy report an average of 3.3 units per landlord while the equivalent figure for Lehrer is 4.5 and Chapman 6.5. However, the studies found that a few landlords own a disproportionate number of units. In the case of the Synergy survey one respondent owned 82 units. Dropping that landlord from the sample gave an average of 2.3 units owned. Skewness is also indicated in the Lehrer sample by the fact that the median number of units owned is just two. Almost half of Chapman's sample owned just one or two units with one landlord owning more than 50. A detailed breakdown is provided in Table 3.3.

Whiteley (1973) suggests a link between the high rates of home ownership in New Zealand and the frequency of part-time landlords with one or two units. That is to say, because successive governments have encouraged home ownership (via mortgage subsidies and low interest rate policies) it is not uncommon for individuals to own more than one house and therefore act as a part-time landlord.

31. Chapman asked the respondents to state the time since each unit was purchased. The average period was 8.5 years. He suggests this implies an average holding period of 15 or 16 years.

As will be noted in Section 3.2 the composition of the rental stock varies between regions. Lehrer found that most landlords in his Auckland sample owned flats (54 percent) while in the Christchurch study the bias was towards single houses (50 percent). It is quite possible that Lehrer's method of drawing his sample (from the records of rental agencies) has biased his results in this respect (and perhaps others), notwithstanding the inter-regional differences in stock.

Table 3.3

Concentration of Private Rental Ownership

No of Units Held	Landlords:	
	No.	Percent
1	20	27
2	14	19
3 or 4	13	18
5 - 9	11	15
10 - 19	4	5
20 - 29	7	10
30 - 49	3	4
50+	1	1
	<u>73</u>	<u>100</u>

Source: Chapman (1981)

Synergy argues that most of the units owned by their respondents covered the lower end of the rental market, with 14 percent in the \$0-\$49 per week category and 52 percent returning rents of \$50-\$99 per week. Since the data are not adjusted for number of bedrooms per unit it is, however, difficult to be sure that this is in fact the case. Certainly it would appear that average (unadjusted) rents in Christchurch at the time of the survey were roughly \$100-\$110 per

week (NHC 1988) which is consistent with Synergy's conclusion. This implies that the sample is not representative of landlords as a whole in Christchurch. Both Lehrer and Synergy speculate that their samples may be biased towards smaller, lower income earning property owners.

Further evidence of this is provided by the data on net rental income which appear comparatively low. Lehrer's sample indicates an average net (cash) return of approximately \$3,500 in the 1983 calendar year, before tax. Interestingly this was actually lower in *nominal* terms than the figure given for 1979 (around \$4,500). This might in part reflect the effects of the rent freeze of that period although even the 1981 nominal return (\$2,800) was significantly lower than that of 1979. (Clearly these figures are subject to the usual problems of self declared income).³² Again the distribution of income among landlords was uneven with a large standard deviation and a medium net return of just \$700 in 1983.

Unfortunately the income categories in the Synergy study are reasonably wide (and the response rate to the question was low) but again the impression gained is that net rental returns are not especially high. In 1985 20 percent of the sample just broke even, 46 percent made up to \$10,000 and 27 percent estimated they had made cash losses. For both studies the implication is that rental income is perhaps, on average, between one quarter and one sixth of total taxable income.

A very high proportion of landlords reported their relationship with their tenants to be "good" or better. In the Synergy study this is consistent with an apparently low rate of vandalism experienced (23 percent) but in Lehrer's research over half the respondents (56 percent) stated that their properties had been subject to deliberate abuse. Lehrer suggests that this inconsistency may in part reflect an unwillingness to admit to problems with tenants as it might reflect badly on the respondent themselves. A further possibility is that while at some stage a majority of landlords will at least once experience vandalism, their on-going relationships with tenants are usually positive.

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32. Lehrer also speculates that there are probably inconsistencies in the respondents interpretation of his question on net rental income.

3.1.2 Factors Affecting Landlord Behaviour

As noted above, it would appear that many landlords are "part-time" in the sense that they own only a few properties and are frequently in paid employment other than landlording. Whiteley (1979) has speculated that there are two main types of private sector landlords. The first group are what might be termed "temporary" landlords who have inherited a property, are waiting to sell one, or are living overseas for some period. The second group, in contrast, are primarily interested in the monetary return on renting and might be defined as property investors. Within this category Grant (1982) distinguishes between those whose income is largely from renting and are "professional" landlords and smaller investors with one to five properties who are interested in both rental income and capital gain but are essentially "part-time" landlords.

Lehrer, Synergy and Chapman provide some evidence on this. Table 3.4 shows the reasons for renting out a property in each study are similar. In each case the majority cite either "long-term investment" or "income for retirement" which will frequently be indistinguishable. Unfortunately, the categories used by Chapman do not translate directly to the other two studies. His definition of capital gains, for instance, includes short term gains. Between 6 and 16 percent are renting temporarily and most of the remainder are interested in making a "satisfactory" full-time or part-time income. It is difficult to be sure how this latter group differ from those wanting a long-term investment. Perhaps their time horizon is shorter and/or they are less interested in capital appreciation. In fact, Chapman's survey shows that 52 percent of the landlords he sampled saw their main source of return as being from capital gain rather than rental income.

The Synergy survey asked respondents to cite the advantages and disadvantages of landlording. In line with the responses given in Table 3.4, 83 percent of respondents saw the main advantage of landlording as security of assets. The costs of maintenance were the most frequently cited disadvantage (43 percent), closely followed by "tax problems" (42 percent) although it is not clear exactly what is being referred to here. Other commonly cited disadvantages included the costs of loan repayments (36 percent), problems with tenants (26 percent), tenancy and property laws (23 percent) and "time involved"

(21 percent). Synergy are surprised that only a minority refer to tenancy and property laws and suggest that it may reflect that they are generally poorly informed about legislation affecting them. This explanation is supported by the fact that two thirds of the sample either knew nothing or very little of the Residential Tenancies Bill (as it was at the time of the survey), and three quarters had never approached the Housing Corporation or any other authority/association for assistance or advice. Further to the question on the disadvantages of landlordism, Synergy asked what were the most significant factors discouraging involvement in the private sector residential rental market. The response rate to the question was low (implying no major discouraging factors?) with one third of those replying citing "taxation" in general (including the tax clawback provisions, apparently). The next most common responses were "government interest rates" (19 percent), and "government interference and controls" (25 percent).

Both studies attempted to isolate what inducements would result in an expansion of the landlords' rental operations. Table 3.5 summarises the responses. Interestingly the most common response in each case was "nothing". Not surprisingly, Synergy notes that this was a particularly prevalent response among those who were renting properties temporarily. Many respondents also cited improved market conditions for funds (either interest rates or supply) as inducements. Presumably this reply is sensitive to the period in which the survey was carried out. In particular Lehrer's study applies to early 1984, prior to extensive financial sector deregulation. Also a rent freeze had then been in operation for some time and hence the significant proportion of respondents who cited abolition of the rent freeze as an inducement. The Synergy survey is prior to the introduction of the Residential Tenancies Act.

Table 3.4

**Main Reason Cited For Renting
Out Residential Property**

Reason:	Lehrer	Synergy (percent)	Chapman
Long-term investment with expected capital appreciation	55	42	51
Going overseas or waiting to sell, and just renting out principal residence for a period	6	16	NA ³
Hoped to make a satisfactory full-time income from rentals	11	6	10
Hoped to make a satisfactory part-time income from rentals	14	16	37
Wanted to provide rental accommodation for own family	7	7	NA ⁴
Income for retirement	5	14	16
Other ¹	20	NA	10
Total	-2	100	-2

Notes:

1. Includes: help with mortgage costs, job transfer, part of home, part of or next to commercial investment, inheritance.
2. These studies include some multiple responses and so the components do not sum to 100 percent.
3. Difficult to interpret, possibly 10 percent.
4. Possibly 12 percent.

Table 3.5

**Changes Which Would Induce Landlords To
Expand Their Rental Operations (Percentages)**

Changes: (1986)	Lehrer (1984)	Synergy
Nothing	20	39
Higher rents/market rents/abolition of rent freeze	18	N/A
Better availability of mortgage funds	15	33
Lower interest rates	13	
Better return on investment/ capital/equity	11	
Less government interference	6	24
More protection from bad tenants	6	N/A
Surplus capital	6	N/A
Revocation of 10 year claw-back tax provision	4	9
Higher depreciation rates	2	N/A

Note: The Synergy response rate was low to this question (just 32 respondents) and includes two multiple responses. It is not clear whether the Lehrer results include multiple responses. The percentages have been calculated on the total number of responses to the question (i.e. they sum to 100 percent).

3.1.3 Comparisons with Overseas Studies

It is useful to compare the characteristics of landlords in New Zealand with landlords elsewhere. This helps provide some feel for whether New Zealand is, in some sense, different, because of either the policy or cultural environment. This section reviews studies of landlords in the UK, North America and Australia.

Cullingworth's (1963) results for the city of Lancaster show that 60 percent of private landlords owned only one house. A further 20 percent owned two or three. Just one percent owned more than 20 dwellings. Confirming this profile was a nation-wide survey by Greve (1965) which found that 41 percent of landlords owned just one unit. Over 80 percent operated fewer than five tenancies. This should be seen in the context of very extensive public sector involvement in the UK rental market. (In 1977 44 percent of all dwellings in the UK were rented, and of these only 30 percent were privately owned). Also private landlords in the UK are subject to very strict tenure laws which restrict them from evicting sitting tenants.

Harloe (1985) reports on a 1976 survey of "densely rented areas" in England and Wales which revealed that two thirds of the private rented stock was owned by individuals. Roughly 30 percent was owned by companies, the remainder being operated by trusts and executors. About one quarter of the individual owners lived in the same premises as their tenants and were generally either younger first home owners (who needed assistance in paying their mortgage) or older retired people seeking additional income. (These groups tend not to be picked up in New Zealand surveys but the former group are likely to be a significant proportion of all landlords). In both cases, the survey showed they were likely to be on relatively low incomes and in blue collar occupations. On the other hand, non-resident landlords tended to be middle aged or elderly and financially better off. Many had either purchased their rental dwellings many years before (often pre-World War Two) or had inherited them. This submarket was in gradual decline. Likewise, company ownership was falling at the time of the study. It tended to comprise mainly higher priced accommodation, especially in inner London.

Not surprisingly the research showed that the company sector usually had very large holdings. Sixty percent held 50 or more units and 23 percent held 1000 or more. Individual landlords (excluding those who shared with tenants) generally owned only a few units. Sixty percent owned six or less, of which about one third owned just one unit.

In comparison with the UK, the US has a relatively small rental sector (65 percent of all dwellings were owner-occupied in 1975) and public sector involvement is minor (about 9 percent of rented dwellings in 1975 were either publicly owned or subject to subsidies). However, despite the prevalence of private sector involvement in the market (and the absolute size of the market) most landlords are not large scale operators. Harloe presents data which shows that in 1975, 60 percent of the private rental stock was made up of blocks of five or fewer units. He suggests virtually all of these were individually owned. Nevertheless, there has been a trend towards greater company involvement in the sector. (In 1950 80 percent of the rental stock was five or fewer units.) Apparently biases in the tax system (which Harloe does not go on to explain) have resulted in many new rental units being constructed and maintained by companies, although they are legally owned by syndicates of individuals. These are normally aimed at the top end of the market.

The relative absence (compared with New Zealand) of subsidised public rental accommodation for low income groups combined with the existence of old housing stock in very densely populated inner city areas has led to a rental submarket not found in New Zealand : that is, the slum tenement. Sternlieb's (1969) study of so-called "slum-lords" found that contrary to expectations, most landlords owned only a few units. Most of these individuals derived only a small proportion of their income from rental properties and did not earn particularly high incomes. They were employed in a wide range of occupations, over half were over 50 years of age and one third were owner-residents.

In contrast, Stegman and Sumka (1976) studied landlords in smaller urban (non-slum) areas. These landlords tended to own, on average, fewer units than inner-city landlords, with 92 percent holding five or fewer units. The average number of units owned was 2.4. Two

thirds of owners had been landlords for more than 10 years and again were of diverse occupations. Professional property management firms were used by 28 percent of the small-city landlords.

Krohn *et al* (1977) summarise a number of studies carried out in the older suburbs of Montreal. A dominant theme in these studies was the frequency which landlords did not appear to operate on the basis of pure economic returns on their investment. Instead many non-economic considerations, such as compatibility with tenants and pride of ownership seemed to prevail. Regrettably, the Krohn research relied on very small samples.

Hohm (1985) has carried out a very large (1307 respondents) survey of San Diego landlords. The overall impression is one of heterogeneity, with a reasonably wide range of ages, occupations and income groups being represented. As Hohm states, the study confirms other US research which shows that the stereotype of landlords as an elite and wealthy group is untrue. While they are likely to have above average incomes, their earnings are not particularly high, they tend to work in other full-time occupations and are frequently "middle-class". The median number of units owned was seven. In comparison with the general population, the respondents were more likely to be male, European, and older (median age was 49 years). The average time spent as a landlord was 7.7 years with the majority of the sample carrying out their own maintenance and management.

Since Australia is culturally and institutionally similar to New Zealand in many ways, Yates' (1982) study of Melbourne landlords is particularly interesting. Based on a survey of 271 landlords carried out in 1978, it shows, as with other studies, that the majority of landlords own very few properties. Forty three percent of those surveyed owned just one property.³³ However, unlike the New Zealand research, this study also provides a breakdown of what proportion of all properties are accounted for in the different ownership categories. This shows that although most landlords are

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33. Data on the number of units was not provided.

small operators, 70 percent of all properties are owned by landlords who hold 20 or more properties. It would be interesting to know if the same applies in New Zealand.

The Melbourne study showed that, unlike New Zealand, over 50 percent of properties are managed by real estate agents, although despite this, only six percent of landlords define themselves as full-time property investors, and only one quarter pay company rather than individual income tax on their investments.

One third of those interviewed were salaried, a further third being self-employed. As has been the case with other surveys of this type, gross incomes of the respondents are higher than average for the overall population, but are not especially high. Interestingly, Yates could find little relationship between the number of properties held and level of income. Yates speculates that this might imply that landlords tend to keep their gearing ratio high as they acquire further properties, but evidence presented elsewhere in the study is contrary to this.

On average, a substantial proportion of total assets held by landlords (including own homes) were accounted for by rental property (43 percent). Around 75 percent of the properties were purchased specifically as a rental investment (only 2.5 percent were inherited, 5 percent purchased originally for owner occupation). As in New Zealand, just under half were detached houses rather than multi-unit blocks (the majority of which had only a few units). Small investors generally held houses, rather than flats.

Three quarters of those surveyed stated that they had purchased rental units as a long term investment, and of those who had sold properties between 1971 and 1978, only 16 percent had done so to realise a capital gain. Most of the rest (60 percent) had found rental returns inadequate. Certainly the data presented for 1978 indicates low gross and net returns.

A subsequent study of the Victorian rental market also shows that while most landlords are small, most property is owned by large investors.³⁴ The research distinguishes three types of investors.

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34. Seventy percent of landlords own one to five properties, but 77 percent of all properties are owned by investors with six more more properties.

"Small" landlords are generally middle aged or retired, on middle incomes and usually hold on to their rental properties for long periods of time. This is because they have either inherited the property, originally lived in it, or have a strong bias towards investment in "bricks and mortar". Against this, a small sub-group have chosen the rental market only after evaluating investment options. A particular characteristic of this "small investor" group is that they do not like being highly geared.

Medium scale landlords tend to be high income earning individuals (but not professional landlords) who are facing high marginal tax rates and are seeking the tax advantages and capital gains available from rental investment. This group is more likely to be highly geared than the former and are less interested in cash returns than capital gains.

Similarly, large scale investors tend to be better informed than small operators, have chosen residential rental property only after considering alternative investments and again are likely to be highly geared. This group is comprised of specialist property development companies and institutional investors (insurance companies, superannuation funds). At the time the research was carried out larger investors seemed to be moving out of the residential rental market. The returns at the time were considered low and the market was perceived as having high transaction costs (eg. maintenance, screening tenants) and generally being a relatively inflexible form of investment.

3.1.4 Landlords : Summary

Although the data sources are limited, we know that the majority of rental properties in New Zealand are privately owned, largely by individuals. These landlords are generally part-time owning only a few units, with their rental income making up a small part of their total income. As a group they tend towards professional/managerial occupations and above average incomes. Self-employed occupations are common. Most landlords see owning rental units as a long-term investment with capital gains being important. The major disadvantages are perceived to be the expense of on-going maintenance costs and taxation, but no particular change was favoured by a majority of those surveyed as an inducement to

expand. Landlords in New Zealand appear to be surprisingly similar to those in the UK, North America and Australia, where "part-time" or "small-time" landlords predominate.

3.2 Factors Affecting Supply

This section attempts to isolate the range of possible factors which will influence the supply of rental units. Much of the analysis focuses on the relative return to landlords on rental properties, but we also review other factors. These include government intervention in the form of legislation and public provision of rental accommodation, input constraints in the construction sector, and long-term changes in the nature of the housing stock. We do not attempt to empirically assess their significance.

3.2.1 Rental Returns

Given that the majority of landlords choose to rent out dwellings, rather than being "landlords by accident", the quantity of dwellings supplied to the rental market should depend on the rate of return from investment in rental accommodation. Landlords should be concerned with both the level of the return and the rate of return compared with other investment opportunities. Such net returns are most highly influenced by the cost of the dwelling (either new or existing), mortgage interest rates, rates of capital gain and rent levels, although other factors such as depreciation, insurance, rates, rent collection costs, repairs and maintenance also affect the ultimate return achieved.

In this section we look at net cash returns by using a simple income and outlay framework, following the methodology of Brown, Copeland and Co Ltd (1983). Rates of return on equity were determined for selected years over the period 1970 to 1987 for three types of rental dwelling - the three bedroom house, purpose built flats and houses-converted-to-flats - and for the five major urban districts - Auckland, Wellington, Hamilton, Christchurch and Dunedin.

Table 3.6 provides an example of the methodology used. In particular we make an estimate of the nominal after-tax revenue, which in effect represents the marginal return - in terms of cash flows -

faced by landlords in their first year of ownership of a rental dwelling given an initial set of assumptions as to the type of income and outlay faced by the *average* landlord. The last two rows in the table specify the real return on equity (excluding capital gain) and the capital gain that would be required on the property in order for the landlord to break even. (This assumes that the property could be sold costlessly and that there is no capital gains tax).

The summary results of this analysis are presented in Table 3.7(a). The general conclusion reached was that over the period 1970-1987 many landlords will probably have either made cash flow losses upon entry into the rental market or unsubstantial gains. Such losses will have continued in many cases for several years³⁵. This was the case across all time periods and all regions although typically, larger losses were experienced in the smaller main centres of Hamilton, Christchurch and Dunedin irrespective of the type of property owned. Also, excluding capital gains, houses show greater losses than flats.

From this analysis it would appear that net cash returns to landlords (both real and nominal) will probably be, at best, low, but in many cases negative in the short term, and that any long term gains they may achieve are likely to be solely as a result of capital appreciation. Table 3.7(b) shows that these fluctuate quite considerably for the years shown. Appreciation rates on houses have tended to be better than on purpose-built flats, but not as high as those on houses converted to flats.³⁶ Adjusting the real return on equity to allow for capital gains suggests quite a different picture. (Table 3.7(c)). Substantial real returns are common, the major exception being the negative returns on purpose built flats in the mid to late 1970s.

There are, however, a number of caveats to our simple analysis:

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35. Over time the mortgage interest component of the landlord's expenses will decrease hence increasing total revenue. Despite the reduction in expenses, cash flow losses would still have been made by many landlords for longer than one year.

36. Since 1980, at least. This probably reflects a contracting supply of houses converted to flats (see following chapter). Note: the appreciation rates refer to changes in the following 12 months from the date shown (eg. a house purchased in June 1986 appreciated in value 19.4 percent in the year to June 1987).

- (i) The debt/equity ratio : This affects the returns made. On the one hand, higher equity requires higher absolute returns to produce a real gain. On the other hand higher debt implies higher interest costs.
- (ii) Effective rates of return : This analysis, by focusing on income and outlay costs only, does not produce a real effective rate of return measure. Such a measure would necessarily include the real opportunity cost of foregone interest based on the total value of the property being leased irrespective of the debt/equity ratio. Furthermore, such analysis would need to consider the rates of return to the landlord given differing assumptions about the length of time the landlord stays in the market. Unfortunately such analysis is beyond the scope of this initial investigation.
- (iii) The tax treatment of landlords : No provision has been made for major changes to the tax regime - in particular the introduction of the "clawback" amendment to the 1976 Income Tax act as introduced on April 1, 1983. Taxation has been calculated simply by applying the top marginal tax rate at each period to the net cash flow after allowing for the tax deductibility of expenses (including interest payments) and the depreciation on the property value.
- iv) The occupancy rate : The occupancy rate of the dwelling has been assumed at 100 percent when clearly this is not the case in many instances.
- (v) The problem of aggregation : All of the data used represents average levels of income and expenditure. No allowance is made for the wide variation that may occur in each of the variables used in the construction of the income and outlay account. Furthermore, bias in the analysis may occur when making comparisons between average measures. For example, the average rent data used may not in fact be the rent comparable with a dwelling described by the average house price.

Table 3.6

Rental Cash Flows : Three Bedroom House
(June 1987 Data, Dollars)

	Wellington	Auckland	Christchurch	Dunedin	Hamilton
Cost Price	112024	124678	82680	59332	86371
% Equity Finance	33.4	33.4	33.4	33.4	33.4
Equity	37338	41555	27557	19775	28787
Mortgage	74686	83123	55123	39557	57584
Interest Rate	17.8	17.8	17.8	17.8	17.8
Rent per week	235	270	155	110	150
Occupancy (%)	100	100	100	100	100
Rental Income	12220	14040	8060	5720	7800
Expenses					
Depreciation ¹	2801	3117	2067	1438	2159
Interest	13302	14804	9817	7045	10256
Insurance	400	450	300	200	300
Rates	1200	1200	1000	800	1000
Repairs and Maintenance	2000	2000	2000	2000	2000
Rent Collection, etc	500	500	500	500	500
Net Revenue	-7982	-8031	-7624	-6308	-8415
Taxation ²	-5268	-3885	-3710	-3028	-4039
After Tax Revenue	-2714	-4176	-3914	-3280	-4376
% Real Return on Equity ³	-12.8	-15.4	-19.3	-21.5	-20.2
% Capital Gain Required ⁴	8.8	9.8	11.3	12.1	11.7

1. No depreciation of contents included
2. Individual assumed to be in top marginal tax bracket of 48%
3. Excluding Capital Gains
4. To break even, in real terms.

Sources: Rent data : A monthly survey of newspaper rental advertisements conducted by the Housi Corporation. House prices: Valuation NZ. Interest Rates: Monthly Abstract of Statistics.

Table 3.7 : First Year Returns

(a) Real % Return on Equity (Excl. Capital Gain) : 5 Main Cities Combined

YEAR	House	PB Flat	HC Flat
1970	-7.8	NA	NA
1972	-9.6	-3.7	-1.3
1974	-13.0	-9.7	-8.7
1976	-18.0	-14.2	-13.6
1978	-16.7	-13.8	-13.6
1980	-20.2	-16.0	-15.1
1982	-19.1	-13.7	-14.0
1984	-9.2	-4.1	-5.1
1986	-18.7	-15.3	-16.1
1987	-23.0	-16.7	-19.0

(b) Capital Appreciation : Principle Urban Areas (Annual % Chg. in Property Prices)

YEAR	House	PB Flat	HC Flat
1970	3.8	NA	NA
1972	22.2	19.2	12.7
1974	11.2	6.9	3.9
1976	8.4	-4.9	1.8
1978	7.1	-0.5	5.8
1980	13.7	5.6	15.8
1982	10.6	14.3	11.6
1984	11.7	9.5	18.5
1986	19.4	15.3	23.6
1987e	20.0	6.0	6.0

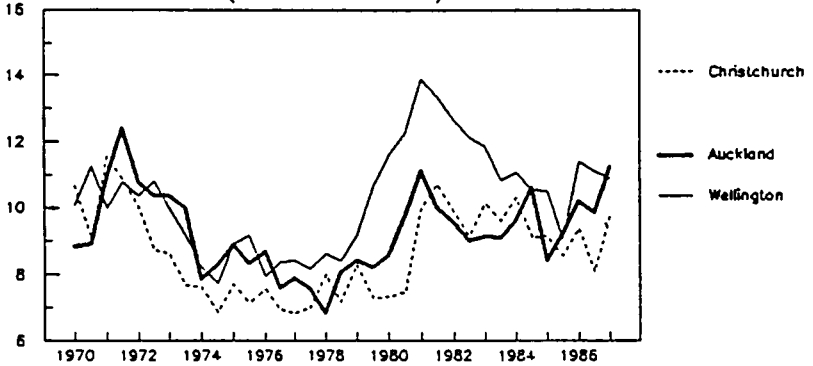
(c) Real % Return on Equity (Incl. Capital Gain) : 5 Main Cities Combined

YEAR	House	PB Flat	HC Flat
1970	-1.6	NA	NA
1972	49.4	50.7	35.2
1974	12.7	5.6	-1.1
1976	5.2	-25.0	-6.7
1978	0.7	-15.4	1.1
1980	14.5	-0.2	27.3
1982	14.2	32.1	24.2
1984	11.6	12.1	34.3
1986	22.4	17.6	36.4
1987e	33.0	6.0	3.0

Source : see previous table

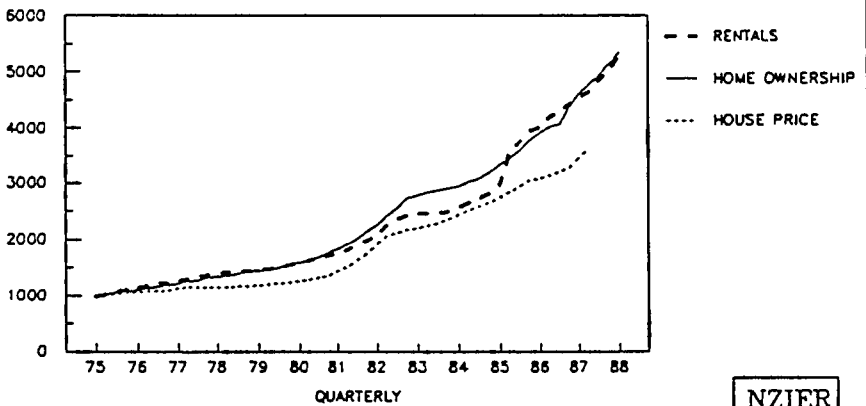
e = estimate

FIGURE 3.1 : RENTS AS % OF HOUSE PRICES
(ANNUAL RENT)



NZIER

FIGURE 3.2 : HOUSING COST COMPARISONS
INDEX



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An alternative means of viewing movements in landlords' rates of return is to analyse the movements in the ratio of average rents to average house prices (see Figure 3.1). Unfortunately it is difficult to draw any conclusions about net returns from this data. In general, rents as a proportion of house prices appear to have been rising since the mid 1970's. This would seem to indicate that landlords' returns might in fact be rising, but might also reflect higher mortgage servicing costs, higher marginal tax rates, or lower capital gains being recovered.

A better comparison, is perhaps between the housing and rental components of the consumer price index. From Figure 3.2 it is apparent that the cost of renting and home ownership³⁷ have tracked each other relatively closely. However there have been short term discrepancies which might have been expected to affect the supply of rental accomodation. In particular, the costs of home ownership diverged from rents during the price freeze, as landlords found it difficult to pass on cost increases. This would have been expected to put downward pressure on the supply of rental accomodation over this period. Following the removal of the price freeze, rents adjusted rapidly to come into line once again with housing cost movements.

As the cost of rental accomodation moves in line with changes in the cost of home ownership, and as cash flow returns would at best appear to be low, it would appear that perhaps the greatest influences on rental accomodation provision are not the rents that are received, nor the direct costs associated with provision of the accomodation but rather other factors such as: the rate of capital gain, the prevailing tax regime, institutional factors, and other legislation. These are considered in the following sections.

.....
37. This includes the costs of purchase and construction of dwelling, financing and expenses of dwelling purchase, maintenance expenditure, rates and insurance.

3.2.2 Relative Returns

The above analysis suggests that the primary return on investments in rental property is in the form of capital appreciation. To explain changes in the stock of rental dwellings we therefore need to compare these capital gains against alternative forms of investment.

Chapman's survey of Auckland landlords asked what alternative forms of investment these respondents who at the time were considering selling would shift into. The responses are shown in Table 3.8. Two problems occur in interpreting these results. First, they apply to a particular point in time only (early 1980) and presumably preferences will shift over time, depending on relative returns. Second, the number of responses is small (51) and applies only to Auckland. Nevertheless it is indicative of the range of alternative investments which landlords will consider. The relatively high ranking of commercial property is consistent with the data in Table 3.9 which shows it to be a good investment relative to an "average" rental property in 1980. This may also suggest (as would be expected) that those already investing in the property market have a bias towards staying in an area they are familiar with. Shares, on the other hand, are ranked relatively lowly even though they provided returns in 1980 better than rental properties.

On a year by year basis, Table 3.9 (and Figure 3.3) reveals that the difference between rental and other returns varies quite considerably. The early 1970s are the only period when residential rental property consistently provided a better return than all the other investments shown. In the late 1970s and early 1980s our rough measure of commercial property returns suggests it might have been a better investment. Also, the lifting of interest rate controls in 1976 may be related to an improved return at that time on interest bearing investments. During the 1980s share returns have also improved. If we adjust for the higher transactions costs of investing in rental property, shares have probably been a more attractive investment, on average, over the last five years or so (at least prior to the October 1987 "crash"). This picture fits with anecdotal evidence that in recent times some landlords have become dissatisfied with rental market returns and shifted funds into shares and commercial property.

Table 3.8

**Alternative Forms of Investment Considered
by Landlords (1980)**

Alternative	Times Cited %
Commerical/Industrial Property	25
Own House/New House	18
Share Market	10
Interest Bearing Instruments	40
- Mortgages	12
- Bank Term Deposit	12
- Commercial Bonds	8
- Government Bonds	8
Other	8
	100

Source : Chapman (1981) p.247

It is interesting to note that most of the period which we have examined is one of relative price instability with high rates of inflation persisting since the late 1960s. During such periods property generally is perceived as a sound investment. (Although as Table 3.23 shows this was not the case in the early 1980s). If New Zealand is now entering a period of low inflation there may be some shift towards alternative investments.

Table 3.9

Rental Property : Comparison with Other Returns
(Nominal, post-tax, annual % change)

June Year	Rental Property Index (1)	Long-Term (2) Govt Stk	RBNZ Share Index (3)	Commercial Prprty (4) Cap. Gain	Consumer Price Index (5)
70-71	9.4	1.8	-12.4	0.6	11.1
71-72	NA	NA	-0.6	9.2	7.4
72-73	59.1	2.8	22.6	16.8	7.7
73-74	NA	NA	-4.8	25.3	10.1
74-75	23.9	3.1	-17.3	-5.7	14.6
75-76	NA	NA	5.5	20.1	17.8
76-77	5.9	3.6	-4.6	-2.0	14.1
77-78	NA	NA	-6.6	22.5	12.4
78-79	6.9	4.0	7.0	25.6	12.4
79-80	NA	NA	20.6	-11.9	17.8
80-81	28.1	5.3	-57.0	45.3	15.1
81-82	NA	NA	4.1	-9.1	16.9
82-83	32.2	5.2	5.7	30.8	8.4
83-84	NA	NA	73.8	61.6	4.7
84-85	34.3	4.1	8.4	7.3	16.6
85-86	NA	NA	48.8	35.6	10.4
86-87	46.1	5.6	41.9	35.5	18.6
87-88	26.2 e	8.6	-35.0 e	NA	6.3

(1) Weighted index. Nominal, post-tax % return on equity of 33.3%.

(2) Average for calendar year, post-tax (maturity : 5 years plus).

(3) Annual % chg, 6mths ended June. No tax assumed.

(4) Nominal % return on equity of 33.3% (Capital gain only).

(5) Year beginning June. Note: e = estimate

Sources : Table 3.7; Monthly Abstract of Statistics; RB Bulletin.

There are a number of caveats which should be applied when considering relative returns:

- (a) Tax treatments differ between investments. In particular, securities are taxed on nominal interest receipts which can reduce their attractiveness considerably.
- (b) The return on commercial property which is shown is capital appreciation only. Presumably the cash flows for that type of rental property are higher than for residential units.

- (c) Each of the investments should be adjusted for risk (this is particularly relevant in the case of shares) and the transactions costs of dealing in each.
- (d) The share returns do not include dividend payments (which would be taxed).
- (e) Chapman notes the problem of "landlord naivety". He states that this is "especially evident in some landlords' lack of acknowledgement of the place of capital gains in their return", and concludes that "a sizeable minority could be said to be somewhat simple-minded in their approach to evaluating their investment". (p.75).
- (f) Since rental properties are a long-term investment, annual estimates of returns may be misleading. Time constraints have not allowed us to estimate long-run averages.

A similar, but more detailed, analysis has been carried out by the Reserve Bank on the returns to owner-occupied housing (see Table 3.11). This looks at real, post tax returns and shows that, for home owners, houses remain a good investment relative to shares and fixed interest deposits. However, in recent times they have become less so. The returns to home-owners will be significantly higher than for landlords because they earn an imputed rental which is not taxed and some home owners have subsidised mortgages.

Figure 3.10

**Relative Returns : Owner-Occupied Housing
(Real, Post Tax Returns, Percent)**

Period of Investment	Owner-Occupied Housing	Shares	Fixed Interest
1961-1967	7.9	-0.5	1.5
1967-1973	18.1	2.8	-1.3
1973-1979	13.8	-8.8	-4.3
1979-1985	8.7	8.7	-4.3
1982-1985	14.2	11.1	1.1

Source: RBNZ Bulletin, Aug, 1986.

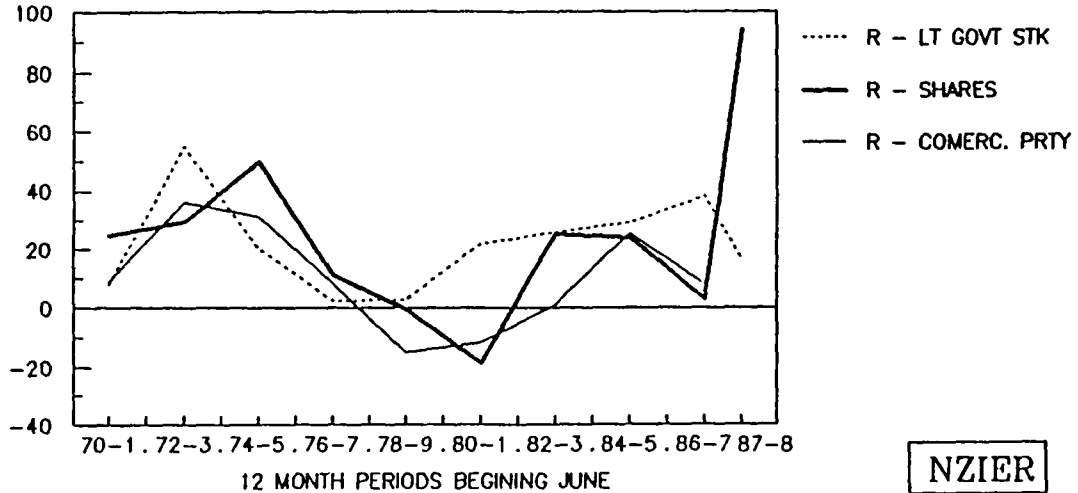
3.2.3 New Construction

Here we are concerned with factors affecting the construction of new rental accommodation. Specifically, the characteristics of the building industry and the regulatory constraints it is subject to.

In considering the nature of the building industry a relevant issue is the strongly cyclical and volatile behaviour of the sector. Two reasons for this can be identified. First, investment in new buildings (both commercial and residential) tends to be highly sensitive to the state of the economy as it relies heavily on expectations and perceptions of the health of the economy. Second, there are normally considerable lag times involved in the availability of both land and labour inputs.

FIGURE 3.3 : RELATIVE RETURNS
(RENTAL MINUS OTHER, ANNUAL %)

PERCENT DIFFERENCE



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For example, carpenters represent the most common skilled trade in the building sector. Because apprenticeships in that trade (as in others) are four years long, industry capacity is often inclined to be out of alignment with industry demand. Figure 3.4 illustrates not only the large changes in numbers between Census years but the large overall decline between 1961 and 1986. Census data on builders also shows large shifts in supply.³⁸ Between 1971 and 1976 their numbers increased 73 percent, then in the following five years contracted 15 percent, subsequently they have increased 36 percent. There may have been a shift in definitions between the two groups, given their relative movements, but the two categories combined show a decline in these main types of skilled labour. Since real output has increased greatly in the construction sector over the period shown, then (unless there has been a shift towards other forms of skilled labour) relative wages for these groups may have increased considerably, adding to cost pressures in the building industry.

The stock of new residential sections can also change substantially from year to year and takes time to adjust to demand levels. (Figure 3.5). The lagged response of developers to the housing boom of 1973/74 caused a surge of production of new sections which peaked during 1976/77. Overlapping these developments were falling economic activity, significant net outward migration flows and a sharp contraction in housing demand. Consequently section *stocks*, estimated at 15,000 in 1984, peaked at 28,000 in 1979. Since that time, demand for sections has generally exceeded current production with the result that stocks have been gradually but perceptibly falling. The estimates show a stock position of 20,000 as at March 1986. (It has not been possible to update this). The National Housing Commission report on supply aspects of housing by Gallacher and Savage (1987) expected the total stock of sections to continue to decline up to 1988/89 and thus act as a major constraint on overall building activity.

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38. Many builders are self-employed and this might facilitate relatively more rapid adjustment to change than otherwise, and partly explain the dominance of small concerns in the construction sector.

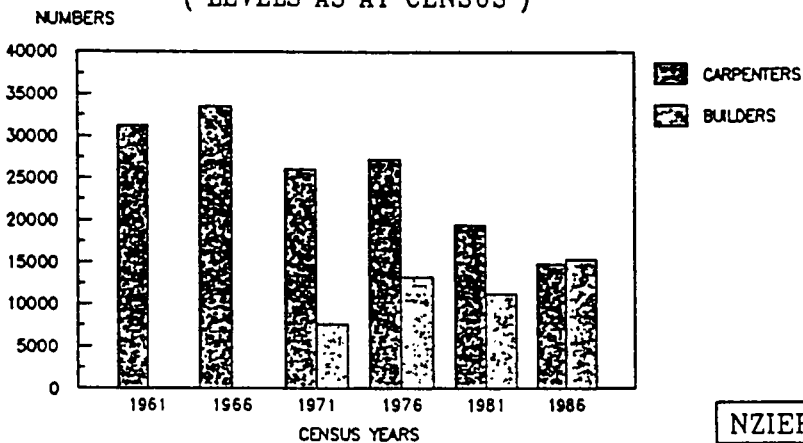
The above points are of interest for two reasons: (a) they confirm that the short run responsiveness of the building sector to demand changes is low, and (b) in the longer run, supply may be volatile, over and under-shooting demand. Since half of the rental stock consists of separate houses these effects may be moderated by shifts of those dwellings between owner-occupation and rental use.

An aspect of the building industry which is also salient is whether economies of scale exist in the case of purpose built rental dwellings. The relative absence in New Zealand of very large scale multi-unit apartment blocks could indicate that such economies are absent and there is some overseas evidence that this is the case (see Section 3.3). Alternatively there may simply not be sufficient demand for that particular type of accommodation, the returns may rely too heavily on capital appreciation (in a thin market), or building and town-planning regulations may limit their viability.

It is difficult to assess the relative importance of these influences. For example, regulations which cover multi-unit developments will vary between local authorities, and within a given area, rules on such things as density and height will vary depending on the zoning of an area and size of lot. The range and complexity of such regulations precludes a detailed examination of them.³⁹ In the United States Smith *et al* (1988) believe that the most binding constraint on the supply of new housing is the availability of land in relation to controls on land use and/or density. A range of empirical work in the U.S. confirms that zoning and building regulations feed through into higher construction costs.

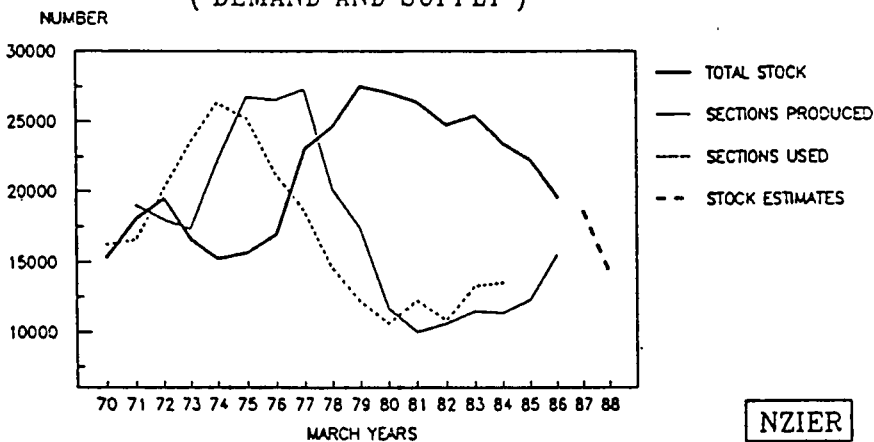
.....
39. The recent "New Zealand Housing Initiative" is an example of an attempt to overcome some regulatory constraints. For a review of the Town and Country Planning Act, see Hearn (1987).

FIGURE 3.4 : LABOUR SUPPLY EXAMPLES
(LEVELS AS AT CENSUS)



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FIGURE 3.5 : RESIDENTIAL LAND
(DEMAND AND SUPPLY)



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3.2.4 Legislation

Apart from building and town planning regulations, two main forms of legislation impact on rental supply.

(a) Tenancy Laws

In the past these have generally taken the form of rent control laws, although frequently, in practice, they seem to have had little effect on the operation of the rental market. Specifically the Tenancy Act of 1955⁴⁰ provided for a wide range of exemptions and the late 1950s and 1960s could be characterised as a period of decontrol (Whiteley speculates that this probably contributed to growth in the rental sector during this time). By the early 1970s the market was, for the most part, free. However, housing shortages at that time resulted in the introduction of the Rental Appeal Act in 1973. This allowed tenants to have their rent assessed if they believed it was other than an "equitable rent". Again, in practice the criteria used (the rent was assessed on the basis of location, quality of dwelling, and landlord's return) meant that rents were, very close to, or at, market levels anyway and relatively few appeals were made.

Since the beginning of 1987, the Residential Tenancy Act has placed some restrictions on landlord (and tenant) behaviour. The main provisions relating to landlords are: (i) a maximum of four weeks rent can be charged as bond with two weeks rent in advance; (ii) rent can only be increased every six months and 60 days notice must be given of the increase; (iii) the normal period of notice for ending the tenancy is 90 days (although shorter periods of notice can be agreed on) and tenants must give the landlord 21 days notice; (iv) if tenants appeal, the Tenancy Tribunal can set a "market rent" for the property; (v) bonds must be lodged with the Tenancy Bond Division of the Housing Corporation; (vi) in general the landlord must treat the tenant fairly (ie no discrimination, and harassment).

.....
40. This developed out of the Fair Rents Act 1936.

There has been some speculation that the provisions of the Act (especially with regard to notice) may have caused some landlords to leave the market but it is not possible to verify this. Some research into its impacts would be valuable. Overall (and particularly in comparison with overseas laws), the Act does not appear to be particularly onerous. Certainly there is effectively no control of rent levels.

(b) Taxation Laws

There are a number of components to this. The first relates to mortgage interest payments. These can be claimed as a tax deductible expense.⁴¹ However, a clawback provision has operated since April 1983. If the rental property is sold within 10 years of purchase, then either some of the interest previously claimed as an expense, or the capital gain made on the sale (whichever is smaller), is recovered (ie the individual's marginal tax rate is applied to the amount). To the extent that this provision inhibits entry and exit by landlords it may have either added a premium to the returns required to enter or remain in the market, or reduced the number of rental units supplied. To give an example of the impact of the provision: An investor buying a house in Wellington in 1982 and selling in 1987 would (on the basis of average house prices) have made a capital gain of around \$36,000. In the same period, interest payments claimed as tax deductible would perhaps have been in the region of \$30-35,000. This suggests that in times of high nominal interest rates, in particular, the clawback could be substantial.

Second, a range of other expenses can be claimed against rental income. These include rates, insurance, repairs and maintenance, and depreciation (on buildings and fittings). Third, rental income is assessed as part of an individuals overall income and taxed at the relevant marginal rate (unless of course the landlord is a registered company in which case the company tax rate applies).

.....
41. Up until November 1984 owner-occupiers could also claim on mortgage interest payments. This was limited to a claim of \$1000 per year and applied only to the first five years of ownership.

The recently announced changes to the taxation regime (ie lower personal and company rates) are largely neutral with respect to rental properties - since they apply equally to all forms of income, although they might affect the cash flow profitability of renting. Since returns currently rely heavily on capital gains, introduction of a tax on these would be expected to either reduce supply (with investors shifting to investments which rely less on capital appreciation) or push up rent levels.

3.2.5 Public Rental Supply

As earlier noted, between 1981 and 1986 the private rental stock increased by around 6000 units while the total public sector stock (including government departments and local authorities) declined by just under 4,700. Most of this decline was due to a reduction in units held by government departments (of 4000). However in the absence of annual time series data it is difficult to be sure of the relationship between public and private rental supply - in particular; is private supply filling the gap created by the reduction in public housing, and if so what is the response time involved?

The only long run time series which is available is of Housing Corporation rental units (Figure 3.6). This shows that they increased steadily between 1975 and 1981 following on from a period of no growth for the four years after 1971. During the early 1980s large numbers of units were disposed of (mainly via sales to tenants) while relatively few units were aquired. Since 1985 the stock has been replenished with very few sales in 1986 and 1987 but substantial aquisitions (mainly new construction, (see Table 3.12). The intention is to continue building up the stock.

Since early 1987 the restriction which prevented the Housing Corporation charging market rents has been lifted. Rents are directly related to the full income of the principal income earner and spouse. Thus rents for higher income households are no longer subsidised. This should encourage those tenants to either buy homes or perhaps move to better quality private rental housing.

The only annual private sector data is from Valuation New Zealand's assessments of the stock of rental flats. These have steadily declined since the series began in 1980. We know however that the total

private sector rental stock increased between the census years, and thus the Valuation series appears not to be a good annual indicator of total movements because separate houses make up half the private rental stock and these are not included.

Given the inadequacies of the data, it is not possible to fully consider the impact of public sector supply on the private sector. In general, we would expect that it would reduce the quantity of private accommodation - at least for the segment of the market that the public supply caters for (in the case of the Housing Corporation, largely low income families). The two sectors will also be competing for construction resources.

3.2.6 Other Factors

There are two main considerations here which have had opposite impacts : the "gentrification" of older houses on the one hand, and a shift towards higher density inner city housing on the other. We consider each in turn.

Table 3.11

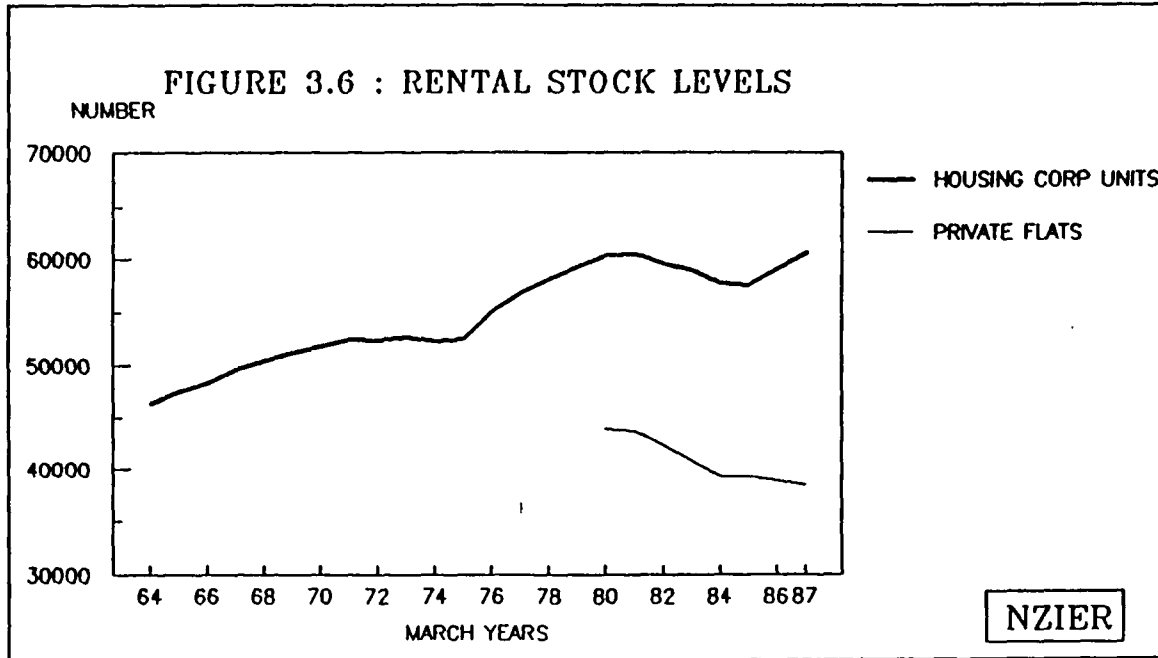
Housing Corporation Rental Units : Stock Changes

Year Ended 31 March	Units ¹ Acquired	Units ² Disposed	Net Additions
1982	770	1,665	-895
1983	552	1,165	-613
1984	611	1,815	-1,204
1985	1,013	1,219	-206
1986	1,695	97	+1,598
1987	1,581	126	+1,455

1. Acquisitions include ordinary takeovers, design and build, and purchases.

2. Disposals include sales, demolitions and buildings destroyed (fire/disaster).

Source : HCNZ (1988)



Both Perry (1980) and Langridge and Taylor (1980) identify the process of gentrification as the major factor in explaining the decline of inner city private residential rental supply in Auckland and Wellington respectively. Hamnett (1976) defines gentrification as "the middle class owner-occupier invasion of those inner city areas characterised both by lower income tenants, and a housing stock attractive for the purpose of renovation" (p. 261). This pattern of change is well documented overseas, and has frequently been subsidised by local governments concerned at the deterioration of inner-city housing. Such "revitalization" tends to be characterised by: (a) an increase in owner-occupation and decline in rental supply; (b) an increase in both rents and house prices; and, (c) a change in the socio-economic make-up of residents towards higher income groups. Perry's research confirms that these changes have occurred in Auckland's inner suburbs during the 1970s.

For the Wellington suburb of Kelburn, Langbridge and Taylor's research reveals a marked shift towards reconversion in the early to mid 1970s. Between 1969 and 1974, 79 percent of all house conversions were from owner occupation into rental. In the following five years the trend reversed - 88 percent of conversions were from rental housing back to owner-occupied. Similar patterns were also shown to occur in two other central suburbs - Northland and Highbury.

In general, part of this gentrification process may be purely related to individual preferences related to the style, age, density and location of housing, however economic factors are also influential. Zoning restrictions are one of the factors explaining the underlying economic pressures which motivate such change. As cities expand, inner city land typically becomes increasingly used for commercial purposes, ie the central business district expands. However deliberate attempts by city councils to limit commercial expansion and ensure a mix of residential and commercial development results in many older inner-city suburbs remaining residentially zoned. The location value of such older properties increases as "suburban sprawl" pushes those who work in the central business district further from their place of employment. These growth and zoning patterns (often combined with the availability of renovation loans) then lead to owner-occupation by higher income groups, and a shift of lower income renters further from the central city.

In New Zealand such change was aided by the introduction of housing improvement loans in 1972, followed by the Community and Housing Improvement Programme (CHIP) (1979-1984) and the Urban Renewal Programme (1986). The current programme has wider effects than gentrification in that it provides assistance packages by way of home improvement loans for individual home owners (and in some cases landlords), purchase and/or improvement loans to housing organisations, housing co-operatives and local authorities, and finance to local authorities to subsidise the provision of home improvement advisory services and the upgrading of residential areas. In fact the breadth of the scheme may actually be positive for inner-city rental supply. For example, according to the National Housing Commission (1988), about half of the 1987/88 expenditure went to Otago University to upgrade old houses for student accommodation, with most of the remainder going to housing trusts.

During the 1970s a further influence on gentrification may have been the increasing expense of new houses relative to existing ones after 1973 (Table 3.13). Prior to this the gap had narrowed. Part of the explanation for the surge in new house prices relates to the particularly severe rise in land prices which occurred between 1973 and 1977. Over this period they increased 144 percent, probably due to a decline in the stock of new residential sections which, we have noted, occurred in the early 1970s. Also, the oil crisis of 1973, which increased petrol prices substantially, probably had some effect on encouraging inner-city living.

Table 3.12

New and Existing House Prices

Year Ended March	New Houses (\$)	Existing Houses (\$)	Ratio
1963	8160	7,200	1.13
1968	10160	9,000	1.13
1973	14870	13,700	1.09
1978	34580	29,380	1.18

Source : Burt (1979) p.12.

Working against the process of gentrification to some extent, has been the move towards higher density housing close to the central city. This is likely to be a mix of both rental (eg apartments) and owner-occupied housing (eg town-houses).

In discussing the development of "infill housing"⁴², Urban Research Associates (1985) cite a variety of factors which have contributed to this form of building:

- (a) The slowdown in peripheral suburban development due to; the relatively high purchase and maintenance costs of large properties, less demand for larger three bedroom homes and higher transport costs;
- (b) The rapid, low density suburban development of the 1940s to 1960s resulted in some spare capacity in inner cities;
- (c) Social change such as smaller family units, an aging population, and more individuals living alone; and,

.....
 42. That is, the introduction of new (multi-unit) housing into an already built-up area, often on land previously occupied by a single house.

- (d) Local Authorities seeing potential positive externalities (eg prevents deterioration of inner-city areas).

Unfortunately no data is readily available to indicate the empirical significance of such developments.

3.3 Supply Elasticities : Empirical Studies

Interest in supply elasticities has typically been in connection with evaluating the impact of housing subsidy programmes. If, for example, supply is relatively insensitive to changes in rent levels (ie. inelastic) then consumer subsidies will tend to drive up rents rather than increase supply.

Demand elasticities seem to have dominated the research on housing markets. Surprisingly little empirical work is available specifically on supply. This partly reflects the difficulty of controlling simultaneously for such things as quality and locational amenities (Smith, 1976). We could find only three papers which dealt specifically with supply elasticities for rental housing.

De Leeuw and Ekanem (1971) use cross sectional data on rent differences among US metropolitan areas to estimate the elasticity of rental housing supply. They do so by comparing rent levels with regional differences in demand (eg. number of households and average income) and supply (costs of capital inputs and operating inputs) while standardizing for the type and quality of rental unit.⁴³ Previous estimates of demand elasticities are utilised. The authors reason that their cross sectional approach is equivalent to studying long-run supply behaviour since the factors which produce different rents in different cities (eg. rates levels, real income etc) tend to persist over several years.

It is assumed that the long run supply price of housing is a function of marginal cost (ie. the cost of adding to the supply of housing services). The marginal cost is in turn a function of land prices, wage rates for construction workers, financing costs, maintenance

43. This overcomes some of the usual problems produced by heterogeneity in housing markets.

costs and property taxes. A central question is whether marginal costs increase as the amount of housing services increase (ie. is supply inelastic?). This could arise because of inelastic input supply (especially land, but also labour) or diseconomies of scale (in either the production of services per unit of stock, the production of new stock, or the maintenance of existing stock).

De Leeuw and Ekanem test three reduced form equations for low, moderate and high rents. The results imply that:

- (a) the elasticity of the supply of rental housing services with respect to rent per unit of service is between 0.3 and 0.7;⁴⁴
- (b) the elasticity of the supply of housing services with respect to the price of capital inputs is between -0.2 and -0.5;
- (c) the elasticity of the supply of housing services with respect to the price of operating inputs is between 0.1 and -0.3; and;
- (d) the elasticity of the supply of housing services with respect to the number of households is 1.0 or very close to it.

These results imply that overall, while supply adjusts fully to the number of households, it is relatively insensitive to changes in rent levels and the price of capital and operating inputs. However, there is a difference between the low and high rent sectors, with the sensitivity of supply tending to be higher in the low rent sector. It is not clear why the elasticity with respect to the price of operating inputs for "high rent" supply is of the wrong sign. In general, the results suggest that subsidies would have a limited impact on supply, and would, in part, serve to drive up rents.

De Leeuw and Ekanem also test for the presence of diseconomies and conclude that some of the inelasticity of supply can be explained by these. Unfortunately, as Grieson (1973) points out, the estimates may suffer from multicollinearity and are very sensitive to the specification of the demand and supply functions used.⁴⁵ Grieson is

44. 0.7 being for low rents, 0.3 for high rents.

45. Eg. De Leeuw and Ekanem include number of households in their supply equation although it is not obvious why.

able to show that altering the supply and demand specifications can produce rental supply elasticities of between 0.4 and 2.2. In fact, in earlier work, Grieson has shown supply elasticities as high as 5.0 depending on the cost of land used relative to the total cost of construction.

Ozanne and Struyk (1977) use both detailed cross-sectional evidence, and data on changes between 1960 and 1970 in rents and stock for the Boston metropolitan area, to estimate long run supply price elasticities for housing services. Supply is specified as being a function not only of rent levels and labour and capital input prices but also producer expectations (proxied by changes in neighbourhood composition, vacancy rates and new construction). Adjustments are made for differences in housing quality.

Interestingly, the rent elasticities were found to be uniformly low despite a variety of specifications of the model. The highest estimate was 0.4, the lowest 0.07. Given particular biases in the data they conclude that at best they can say the lower bound of the long-run rent elasticity of the supply of housing services is around 0.3. (They found no significant difference in the estimates for owner-occupied as compared with rental dwellings). This is consistent with de Leeuw and Ekanem's lower estimate, but they believe a realistic (long-run) upper bound may be as high as 1.5.

Ideally we would want to make elasticity estimates for New Zealand. However, a number of major data constraints exist. Since there is no time series available on private rental supply, cross-sectional census data would have to be used. This is unsatisfactory for a number of reasons: (i) Because of New Zealand's small population size a meaningful regional breakdown would provide relatively few data points. Depending on the number of explanatory variables required, the degrees of freedom are likely to be low; (ii) It would be difficult to include variables which explain inter-regional differences in supply - eg. by-laws, rates levels, quality of housing stock, and construction costs; and, (iii) Since there is no measure of market disequilibrium (eg. vacancy rates) we would have to assume constant equilibrium, which intuitively seems unrealistic.

Although the estimates given above are for the United States and are somewhat dated, they may be indicative of the range of estimates that New Zealand data would produce (ie. wide ranging depending on specification, but tending to show inelastic supply).

4. RESIDENTIAL RENTAL PROPERTIES

4.1 The Stock of Rental Properties

4.1.1 General

Two primary sources of data on the private rental stock exist. The Census provides a range of information on the nature and location of rental units as well as the rent levels received for them. The main constraint in using that database is that long-term historical comparisons are impossible, since prior to 1981 no distinction between public and private landlords is made. A second database is provided by the Valuation New Zealand research paper series. This provides six monthly statistics on residential property sales (number and prices by urban area) as well as annual assessments of the current stock of properties. While the distinction is made between "purpose-built flats" and "houses converted to flats", separate houses (whether owner-occupied or rented at the time of sale) are in a single category. In most cases the statistics go back to at least the six months ended December 1971. A notable exception, unfortunately, is the stock assessments data which begins in 1980.

Of a total of 1,078,005 residential dwellings in 1986, 249,894 or 23.2 percent were either rented or leased from a public or private landlord. This is a lower proportion than either 1966 (24.9 percent) or 1976 (27.0 percent) and coincides with a higher proportion of dwellings in New Zealand being owned without a mortgage (27.6 percent in 1966 compared with 31.5 percent in 1986). This is perhaps due to the changing age structure of the population. The proportion of dwellings owned with a mortgage was the same in 1986 as twenty years earlier, while both the absolute number and proportion of homes provided rent free have fallen over the period.

(See Table 4.1)

As indicated earlier from Table 3.1 just under 60 percent of all rented dwellings are owned by private landlords (most apparently being individuals rather than partnerships or companies). This represents an increase from 1981, largely reflecting a growth in the stock of private units of around 6,000 during a period when the number of units held by "other" government departments (ie. Railways, Electricorp etc, but excluding the Housing Corporation)

declined by 4,000. (See Table 4.2). Since 1986 this decline will continue, as rationalisation within the state owned enterprises and other (non-trading) departments proceeds.

To a lesser extent the growing share of the rental market held by private investors has been influenced by a fall in the number of rental properties held by the Housing Corporation between 1981 and 1986. However, it should be noted that this Census data differs significantly from the records of the Corporation itself. Census data records around 3000 fewer units than the Corporation. Presumably the difference is accounted for by some State tenants who do not specify their landlord plus those State units not currently occupied. According to Corporation records, the stock declined by 1,320 between 1981 and 1986 (a larger fall than in the Census) but that since then a net addition of over 1,400 units in 1987 has brought the total stock to a level of 60,600 following net declines up until 1986. This is higher than its previous peak in 1981.

Private rental accommodation as a percentage of all the residential dwellings in New Zealand appears to have been falling over a long period. Whiteley (1979) provides estimates of the private rental stock (Table 4.3) which suggests that in the early part of this century perhaps as many as half of all dwellings were privately rented. Among other things the large scale provision of state rental housing from 1936 onwards reduced this proportion substantially and by 1951 around just one fifth of homes were rented from private sector landlords.

4.1.2 Types of Rental Property

It is not obvious why the proportion of dwellings in the private rented sector increased between 1971 and 1976. The period was one of considerable flux in the housing sector with severe shortages followed by a building boom. As Whiteley mentions, the 1960s and early 1970s witnessed a marked change in the pattern of house construction with a significant shift towards the construction of small blocks of flats on sections designed for single unit houses. In 1960, 20 percent of all new housing units were multi-unit buildings. By the mid-1970s, the figure for Auckland was approaching 50 percent. (Whiteley p.10). Consequently while in 1961 8.2 percent of the housing stock was comprised of flats, by 1976 the figure had

grown to 17.9 percent. In 1986 the proportion was 17.7 percent, down from 19.6 percent in 1981. Whiteley speculates that the shift towards flats was probably due to a combination of the diseconomies of large sprawling cities (encouraging higher density housing in the inner city) and social trends (eg. young people leaving home at an earlier age).

Table 4.1

**Stock of Permanent Private Dwellings by Tenure
(Percent of Total, Public and Private Landlords)**

Tenure	1966	1976	1986
Owned without Mortgage	27.6	27.6	31.5
Owned with Mortgage	41.4	42.1	41.4
Rented or Leased	24.9	27.0	23.2
Provided Rent Free	6.1	3.4	2.8
Not Specified	-	-	1.1
TOTAL	100.0	100.0	100.0

Source : Census (Various)

Assessments of the private rental stock by Valuation New Zealand since 1980 show that the number of purpose-built flats has remained fairly constant over the past eight years, with a net decline of 1410 "blocks" (with an average 3.7 units per block in 1986) between 1981 and 1984 and a slight increase of 690 blocks since then. (See Table 4.4). In contrast, the number of "houses converted to flats"⁴⁶ has steadily declined over the short period that data is published for, down by over 5000 houses (with an average 2.4 units per house in 1986) since 1980. Presumably this is closely related to the process of gentrification which will be discussed in the following section.

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46. A distinction not made in Census data, which groups all flats together.

Table 4.2

**Change in Rental Stock by Category
of Landlord 1981 - 1986**

Landlord	Change Number	Percent	Households: Percent Change
Private Person/Company	+5925	+ 4.1	
Housing Corp	- 954 ¹	- 1.7	
Other Govt. Dept.	-4017	-18.6	
Local Authority	+ 321	+ 2.0	
Not Specified	-4404	-12.5	
TOTAL 1981-1986	-3159	- 1.2	+ 7.5
TOTAL 1976-1986	+1116	+ 0.4	+16.8
TOTAL 1966-1986	+72465	+40.8	+50.6

Source: Census (Various)

Table 4.3

Private Rental Stock 1916 - 1986

Year	Number ¹	% Of All Dwellings ²
1916	238,066	47
1951	170,000	21
1971	135,600	17
1976	180,000	19
1981	142,884	14.2
1986	148,806	13.8

Source: 1916 - 1976 Whiteley (1979); 1981, 1986 Census

Note: 1. 1916 - 1976 are approximate estimates only.

2. Occupied, permanent private dwellings.

Table 4.4

**Gross Assessments of Private Rental Stock
(Excluding Single Houses)**

As At 31/3	Purpose-Built Flats No.	Flats Change	Houses Converted to Flats No.	Change
1980	26581	-	17302	-
1981	26880	+299	16763	- 539
1982	25980	-900	16274	- 489
1983	25684	-296	15066	-1208
1984	25470	-214	13735	-1331
1985	26012	+542	13187	- 548
1986	26096	+ 84	12746	- 441
1987	26160	+ 64	12221	- 525

Source: Valuation NZ Research Papers (Various)

Census data shows that approximately half of the private rental stock is made up of separate houses (Table 4.5). This proportion is likely to be sensitive to the state of the resale market for residential houses, although as the section on landlords indicates, the proportions of units being rented temporarily at any given time is probably not large. Around half of all flats are in blocks of just two or three units.

As would be expected, since the private sector rental stock has a higher proportion of flats to houses than the public sector, most one and two bedroom units are privately held. Around two thirds of all one bedroom units are in the private sector with most of the remainder under the control of local authorities - many in the form of housing for the elderly. Private landlords account for an even higher proportion of two bedroom units. Recently the Housing Corporation has shifted towards holding a higher proportion of smaller units.

Table 4.5

**Private Rental Stock
Type of Building (1981)**

Type	Percent
Separate House	48
House/Flat in block of:	
2 or 3 units	27
4+ units	20
Not specified	4
Bach or temporary dwelling	1
	100

Source: Census (1981)

Table 4.6

**Private Rental Stock by Number of
Bedrooms and Degree of Furnishing**

No. of Bedrooms	Furnished		Unfurnished		Total		
	No.	Percent	No.	Percent	No.	Percent	(1981) Percent
1	6495	28.4	18828	15.3	25323	17.4	(19)
2	7611	33.3	48684	39.6	56295	38.6	(41)
3	5538	24.2	41478	33.7	47016	32.2	(30)
4	1929	8.4	10179	8.3	12108	8.3	(10)
5+	1266	5.5	3846	3.1	5112	3.5	
TOTAL	22839	100.0	123015	100.0	145854	100.0	

Source: Census (Various)

Table 4.6 shows the distribution of unit type within the private sector rental stock. While the majority of units are unfurnished a significant proportion (15.7 percent) have furnishings supplied. It is likely, however, that the quality of furnished units varies greatly. Some will consist of separate houses which the owners have temporarily rented out while others will be part of permanent units and (probably) not as of high a standard or as well maintained. Most appear to be in the latter category. In 1986 the private rental stock largely comprised two (38.6 percent) and three bedroom (32.2 percent) units. Compared with 1981 there has been a marginal shift towards larger units with three or more bedrooms. This might in part be a function of the relative state of the residential owner-occupied housing market at the time: the turnover rate for the market was significantly lower in the first half of 1986 as compared with the first half of 1981, and so many sellers may have been renting out their properties in anticipation of an improvement in market conditions.⁴⁷

4.1.3 Geographic Spread

Table 4.7 indicates that the geographic distribution of private rental properties is reasonably even. Wellington City and Auckland Central are ranked as having the highest ratio of private rental accommodation to all dwellings. The larger urban areas tend, on average to have a higher concentration of private rental properties although to explain the inter-regional differences completely would require a consideration of all those factors which affect supply and demand (e.g. age structure of the population and relative rents). In some instances intuitive explanations for some of the differences are possible. For example, Hamilton and Palmerston North both have relatively large tertiary student populations, while Tokoroa's housing stock has historically been dominated by houses rented out by Forest Products to its workers. (These are now being sold to tenants). It is likely that, historically, many government department and company rental houses have been in remote areas. Porirua's rental stock is probably biased towards State houses.

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⁴⁷. Subsequently turnover rates did increase. (See Section 4.2)

Changes in rental stock between census dates largely reflect changes in population. The high growth areas tended to have an expansion in the rental stock (in percentage terms) larger than their population growth (eg. Northern Auckland, Southern Auckland, Whangarei, Tauranga). Without detailed cross section analysis, it is not possible to be sure why this is so. It might reflect better rates of return (as property values appreciate in growth areas, see Section 3.2) and the fact that internal migration inflows are biased towards younger age groups (who have a higher propensity to rent) and those not yet in a position to buy homes (eg. those searching for jobs). Conversely, areas facing population declines usually face proportionately larger percentage falls in their private rental stock (eg. Upper Hutt, Masterton, Ashburton).

4.1.4 Overseas Studies

Harloe's research shows that apart from the UK, between one fifth and one third of the dwelling stock of the other five countries studied⁴⁸ was in the private rental sector. The overall pattern had been one of decline in the sector, largely as a function of a growth in owner occupation (at least up until the late 1970s). In most of these countries (including the UK), public housing programmes had declined in favour of owner-occupation, but there had been a shift towards government subsidies to private landlords who housed low income households. This had increased the proportion of rental accommodation that could broadly be defined as "public". The only exception to this was the US where public housing is a small proportion of the total - just nine percent of the rental stock. Public sector involvement in the European nations tended to be high. In the U.K. roughly 70 percent of all rented dwellings are state owned with around 45 percent of all dwellings being rented rather than owner occupied. In both the Netherlands and Germany the rented sector is large - about two thirds of all dwellings. In the case of Germany, most of these are privately owned (70 percent) whereas the reverse is true of the Netherlands.

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48. France, Denmark, Netherlands, Germany, USA.

Table 4.7

Geographic Spread of Private Rental Stock

Area	Private	Private	1981-1986 % chg	As %		As % Dwellings 1986
	Rental 1981	Rental 1986		all Dwellings 1981	all	
MAIN URBAN AREA						
Whangarei	1812	2157	19.0	12.4		15.3
Auckland	38439	41241	7.3	15.4		15.4
Northern Zone	6207	7032	13.3	12.3		12.5
Western Zone	3714	4047	9.0	10.6		10.4
Central Zone	21423	22152	3.4	21.9		22.1
Southern Zone	7095	8010	12.9	10.9		11.2
Hamilton	5406	5880	8.8	17.6		17.8
Tauranga	2370	2862	20.8	13.3		13.8
Rotorua	2253	2397	6.4	16.3		15.8
Gisborne	1278	1263	-1.2	13.0		12.3
Napier	1986	2127	7.1	12.1		12.2
Hastings	2211	2118	-4.2	13.4		12.0
New Plymouth	2133	2316	8.6	14.3		14.1
Wanganui	1557	1593	2.3	11.8		11.3
Palmerston North	3567	3747	5.0	17.0		16.9
Wellington	17010	16221	-4.6	16.2		14.9
Upper Hutt	1545	1335	-13.6	14.1		11.7
Lower Hutt	3159	2925	-7.4	10.3		9.3
Porirua Basin	969	1035	6.8	6.4		6.3
Wellington City	11334	10922	-3.6	23.5		22.1
Nelson	1707	1857	8.8	12.3		12.4
Christchurch	14313	13992	-2.2	14.4		13.3
Timaru	1263	1224	-3.1	12.6		11.8
Dunedin	5064	5217	3.0	14.0		14.1
Invercargill	2190	2193	0.1	12.9		12.4
TOTAL, MAIN URBAN AREAS	104562	108402	3.7	15.0		14.6

Table 4.7 (Cont)

SECONDARY URBAN AREA					
Pukekohe	606	594	-2.0	14.8	13.3
Tokoroa	1710	936	-45.3	34.2	18.2
Taupo	837	912	9.0	19.1	17.3
Whakatane	672	705	4.9	14.8	13.8
Hawera	378	411	8.7	10.3	10.8
Fielding	459	465	1.3	11.5	10.7
Levin	642	666	3.7	11.0	10.4
Kapiti	654	669	2.3	9.0	7.7
Masterton	897	777	-13.4	13.9	11.6
Blenheim	768	828	7.8	10.7	10.6
Greymouth	378	384	1.6	10.7	10.5
Ashburton	597	519	-13.1	11.2	9.2
Oamaru	519	501	-3.5	10.5	9.9
Gore	426	429	0.7	11.4	11.1
TOTAL, SECONDARY					
URBAN AREA	9549	8796	-7.9	13.6	11.6
MINOR URBAN AREAS	11280	11364	- 0.7	12.6	11.2
RURAL AREAS	17748	20256	14.1	12.2	12.7
TOTAL, URBAN and					
RURAL AREAS	143136	148806	4.0	14.3	13.8

Source : Census (various)

Except for England (no data is given for the UK), the private rental stock in all countries was strongly biased towards flats rather than houses (between 60 and 80 percent were flats). To a degree this reflects the high population densities in these countries compared with New Zealand. English data for 1977 shows a roughly 50-50 split but this is a little misleading since included in the definition of houses are "terrace houses". In most instances the bias in recent times continues to be towards construction of flats rather than houses (in both public and private sectors).

The majority of the rental housing stock in each of the European countries was found to be of pre-war origin and was on average older than the dwelling stock as a whole, confirming that post-war investment in the private rental market has lagged behind owner-occupation and public sector investment. The age of rental accommodation is one factor which contributes to the relatively poor quality of such dwellings - as indicated by the level of amenities, for example, when compared with owner-occupied or public sector rental. It would appear that compared with New Zealand, rental units are smaller (on average) in both the US and Europe.⁴⁹

4.1.5 Rental Stock : Summary

Unfortunately no long-term time series on the private rental stock exists. From recent census data we know that around one quarter of all private dwellings in New Zealand are rented and 60 percent of these are owned privately. This is in contrast to Europe where the majority of dwellings are usually rented with large scale public sector involvement common. This takes the form of both public provision and subsidies to private landlords. Between 1981 and 1986 the New Zealand private rental stock increased by around 6,000 units while the public stock declined overall by 4,500 units. This represents mainly a fall in units owned by government departments. Roughly half of the private stock comprises houses rather than flats, with the stock of houses converted to flats declining since 1980 and

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49. New Zealand data is biased by Housing Corporation stock.

numbers of purpose-built flats remaining more or less static. Most blocks of flats are made up of just two or three units, large scale provision being unusual.

4.2 The Rental Property Market

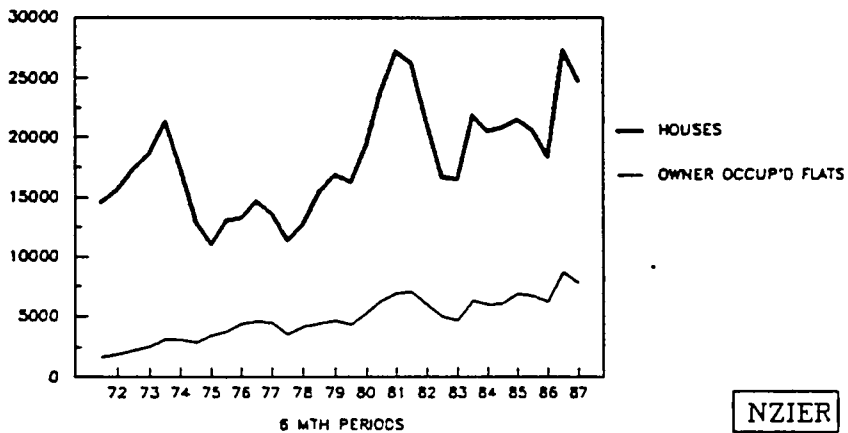
Some feel for the market in the ownership of rental properties is provided by Figures 4.1 to 4.3. Considerable variation in both sales levels and turnover rates appears evident,⁵⁰ especially in terms of the six monthly changes given in Figure 4.2. Overall the four categories of market move reasonably closely together.

Over the time covered by the available data, there are two major periods of buoyant activity. From late 1971 to late 1973 the market for all forms of residential property was very active. From earlier sales data, which is available for separate houses only (back to 1966), it is clear that this growth in sales began as early as 1969 and coincides with consistently strong economic growth, high net migration inflows and severe housing shortages. The subsequent decline in market activity was both substantial and rapid. Between the second half of 1973 and the first half of 1975 sales of rental flats declined from 2119 to 616. By comparison the decline in sales of other dwellings (i.e. houses and owner-occupied flats), while considerable, was not so severe. In fact during that time owner-occupied flat sales actually increased slightly. An important factor influencing this will have been the introduction, in 1972, of the Unit Titles Act which made separate ownership of units possible. Prior to that legislation there existed a complex form of co-ownership which discouraged ownership of flats, apartments, town-houses and the like.

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50. Turnover rates refer to the number of units sold divided by the total stock. These cannot be estimated prior to 1980, as stock data is lacking.

FIGURE 4.1 : SALES ; HOUSES & 0-0 FLATS

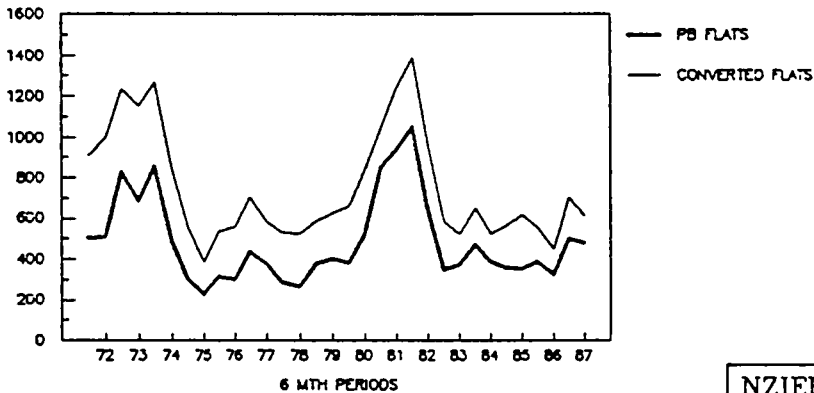
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NZIER

FIGURE 4.2 : PROPERTY SALES ; FLATS
(PURPOSE-BUILT & HOUSES CONVERTED)

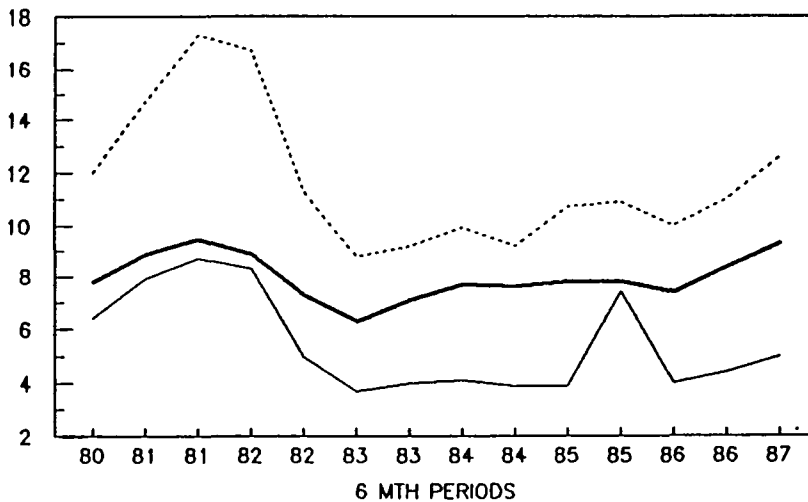
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FIGURE 4.3 : SALES TURNOVER RATES
(RESIDENTIAL PROPERTIES)

PERCENT



— PB FLATS
..... CONVERT. FLATS
— HOUSES

NZIER

The market remained weak until early 1978 when sales levels again increased steadily for a period of three and a half years. Again a rapid contraction followed. Since then sales of the various categories of property have not followed each other as closely as in the past. Rental flat sales have changed relatively little since then apart from short periods in late 1983 and early 1986. In contrast, the level of house sales in the second half of 1986 was as high as it had been at the peak of its previous boom in 1981. In part this may be due to the relatively smaller proportion of all properties which are rental flats now.

Data on turnover rates (Figure 4.3) is only available since 1980, but in general it is clear that they were not as high in the second part of the 1980s as they had been in the earlier period. However, turnover rates do vary considerably between regions. For the six months ended June 1987 the most active regions for sales of rental flats were Wellington, Auckland, Waikato and the Bay of Plenty. These are likely to be areas which have been less severely affected by the current recession. For house sales a similar pattern is evident, although Christchurch, Alexandra and Invercargill also have turnover rates slightly above average.⁵¹

Not surprisingly, there is a close correlation between changes in selling prices and market activity (Figure 4.4, 4.5). Again, the various categories of residential property show similar price movements, although it is interesting to note that since 1971 houses have become relatively more expensive than rental flats. A range of factors could be at play: a declining relative return on rental flats, changing relative quality/size, or other differences in supply and demand conditions. It would appear that rental flat prices generally move in tandem with house prices but are more volatile.

Building permits data (Figure 4.6) also shows the distinctive 1969 - 1974 boom, followed by a contraction in activity up until 1981. It also confirms a noticeable shift in favour of flats (Figure 4.7) as

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51. For the smaller urban areas single period estimates of turnover may not be very accurate.

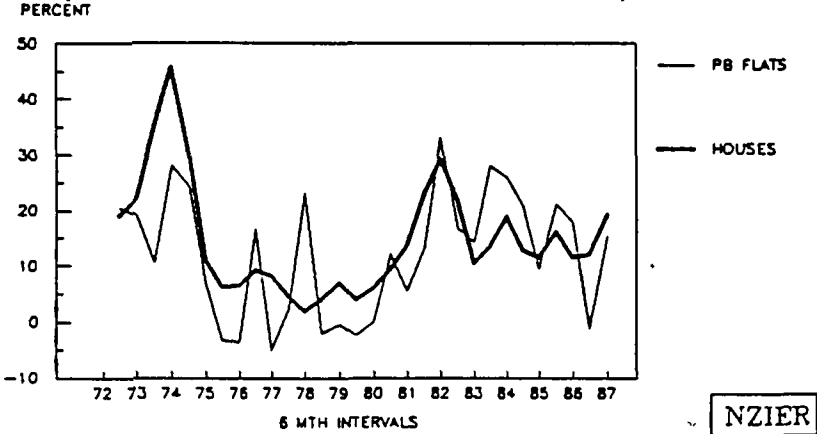
opposed to house construction during the early 1970s. Recently there has again been a relative movement towards flats. The picture is one of quite significant changes in activity from one year to the next.

Finally, Chapman provides some indication of past market conditions by estimating a proxy of "excess supply" for the Auckland region (Figure 4.8). The proxy is calculated as the difference between the number of accommodation-wanted and accommodation-offered advertisements in the two Auckland newspapers. Although this probably offers only a rough guide of the extent of market disequilibrium⁵², it does suggest two distinct periods when the market was "loose" - that is, the mid to late 60s and mid to late 70s. This picture is consistent with data on the level of sales, prices, and new building which were weaker during these periods. Unfortunately, the proxy is only estimated up to 1980 and would be difficult to update.

In summary: The market for flats has tended to follow the residential housing market closely, with particularly buoyant activity in the early 1970's and 1980's. However, the more recent housing market boom has not been associated with a similar level of activity in purpose-built rental properties - turnover rates for these have remained relatively low since the early 1980's. Sales of owner-occupied flats have grown steadily over the period covered, being almost four times higher in 1987 than in 1972. In terms of new additions to the stock, the most active period was the early 1970's when flats comprised close to 40 percent of all new building permits. Since then new residential construction overall has declined considerably. New flat construction is now at levels similar to that of the mid to late 1960's - around 6000 units per year, or 30 percent of permits issued.

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52. An excess of "offered ads" over "wanted ads" does not necessarily imply excess supply, since the bias in newspapers tends to be towards accommodation offered. It only provides a feel for the relative gap between the two measures.

**FIGURE 4.4 : CHANGE IN SELLING PRICES
(PRINCIPLE URBAN AREAS, ANNUAL % CHG)**



**FIGURE 4.5 : CHANGE IN SELLING PRICES
(PRINCIPLE URBAN AREAS, ANNUAL % CHG)**

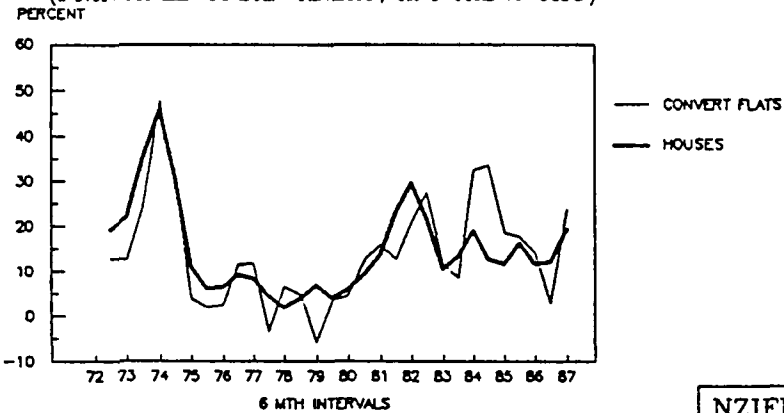


FIGURE 4.6 : BUILDING PERMITS ISSUED
(RESIDENTIAL DWELLINGS)

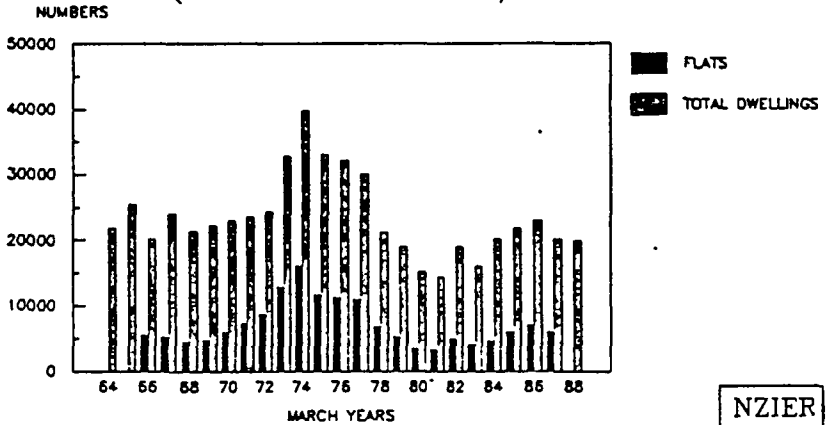
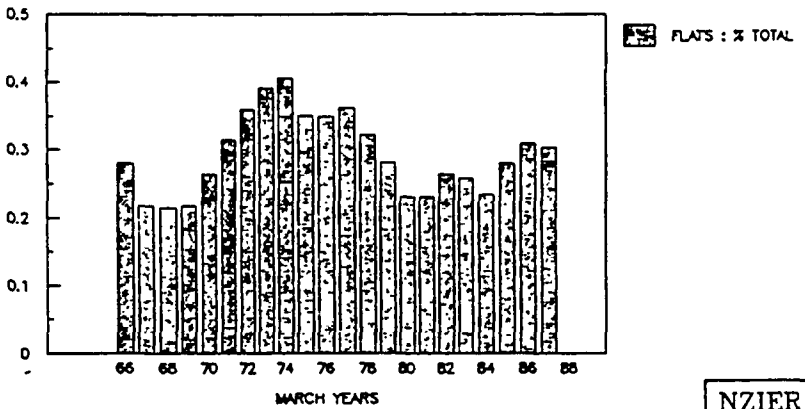
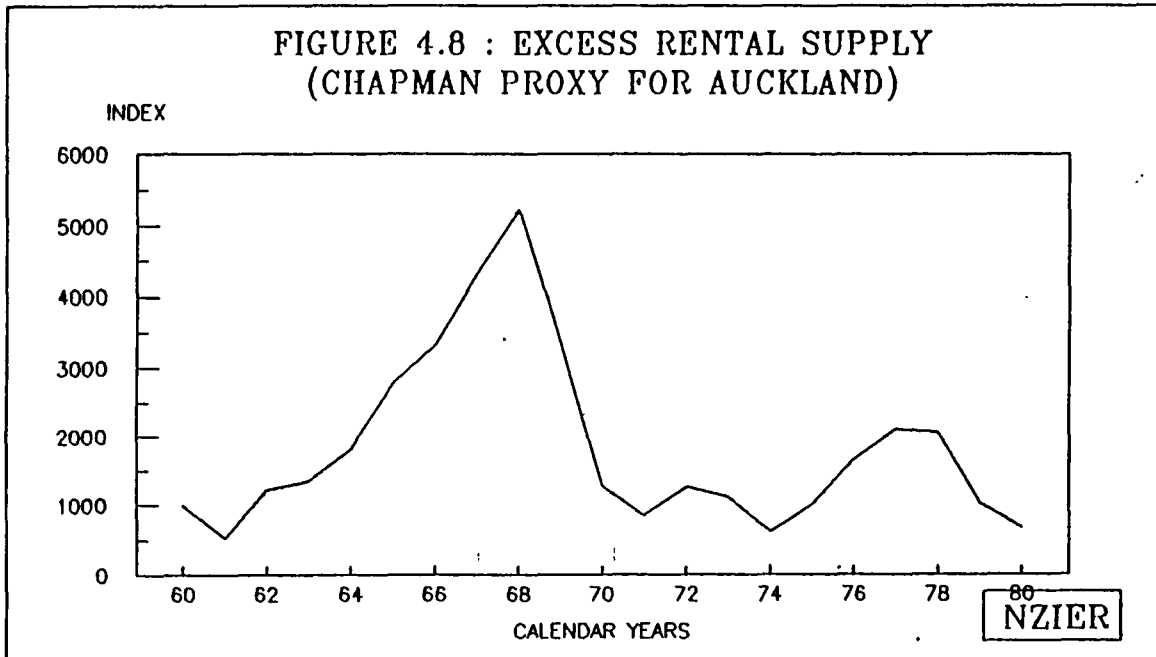


FIGURE 4.7 : PERMITS : FLATS AS % OF TOTAL
PERCENT





5. POLICY ISSUES

Our intention in this chapter is to provide a very general overview of policy issues related to the residential rental market. Given resource constraints we have not attempted to provide a detailed analysis of either current policy or alternative approaches. Rather, we briefly note the current range of measures, outline two alternative frameworks for considering intervention, and specify the range of possible policy options. In light of our examination of rental market characteristics, comment is made on some implications of the policy frameworks and options in the New Zealand context.

5.1 Current Policies

Table 6.1 provides a summary of policies which currently impact on housing markets. As it shows, current intervention is extensive and relates not only to very specific rental policies (eg. the accommodation benefit which subsidises beneficiaries and low income tenants) but also policies affecting tenure choice (eg. subsidised mortgages to low income groups) and broader policies affecting the demand and supply of housing generally (eg. immigration). These policies have been introduced at different times often for quite different reasons and their objectives in some cases conflict. However, before noting some implications of current policies and alternatives to them we turn to the question of policy objectives and rationales for intervention.

5.2 Rationales

The objective of housing policy is usually couched in terms of the idea that everyone should have housing of some acceptable minimum standard. (See eg. Treasury, 1984). Sometimes the objective is extended to include the need for "affordable" housing with a choice of types and tenures. (See NHC, 1988). In this context, rental market policies cannot be considered in isolation from housing policies generally and this section will implicitly refer to both rental and owner-occupied policies.

Table 5.1

Policies Affecting Housing Markets

Type of Policy	Area:	Rental	Ownership	Other
Direct Provision		<ul style="list-style-type: none"> -Housing Corp rental units -Local Authority rental units -Govt. Dept houses -Emergency housing and welfare tenancies 		<ul style="list-style-type: none"> -Institutionalised care
Subsidies/ Taxation-Landlord		<ul style="list-style-type: none"> -10 year rule income tax -Expense deductions -Accommodation Benefit 	<ul style="list-style-type: none"> -Non-taxation of imputed rental subsidies -HC subsidised loans -Corp. Tenants Loan Scheme -Equity Sharing/Sweat Equity -Multiple Ownership Housing Contract -Homestart deposit assistance -Tied Accommodation Loan Scheme 	<ul style="list-style-type: none"> -Urban renewal
Regulation		<ul style="list-style-type: none"> -Residential Tenancies Act laws 	<ul style="list-style-type: none"> -Property transfer 	<ul style="list-style-type: none"> -Building codes -Town planning legislation
Other				<ul style="list-style-type: none"> -Income maintenance -Macro policies (eg. monetary) -Immigration

5.2.1 The Traditional Framework

This approach relies on both efficiency and equity rationales for housing market intervention. Efficiency arguments revolve largely around the existence or otherwise of externalities in housing consumption - ie. should housing be considered a merit good? Externalities are relevant in two ways. In a narrow sense, some writers define them solely in terms of the quality of one house impinging on the quality of surrounding homes. In other words, the marginal social benefits of house improvements exceed the private marginal costs and so owners will underinvest relative to what is socially efficient. As Rosen (1985) notes, this does not seem to be a very strong justification for the sorts of wide-ranging housing policies found in most countries, especially given that empirical evidence of any significant spillovers (of this type) is weak. More relevant might be the wider definition of housing externalities to include the social costs of poor housing. That is to say, inadequate housing creates problems of crime, delinquency, low educational achievement, poor health and consequent general social disruption. While evidence on the correlation between these variables is much stronger, the counter argument is typically that such social problems are fundamentally caused by poverty rather than poor housing *per se*. However, even to the extent such justifications are reasonable it is not at all clear that the *forms* of intervention which are observed (eg. provision) are appropriate.

Efficiency arguments may also extend to the idea of market failure. This position tends to rely on the idea that special characteristics of the housing market (of the sort outlined in Chapter 1) make the market less than perfectly competitive and that intervention can alleviate that. Specifically, information and uncertainty problems are usually cited. However, these are characteristics common to many markets and it is not obvious why government has any advantage in overcoming them, or, again, whether the policy instruments actually employed deal directly with them.

A much less common efficiency argument is that some forms of state intervention are intended to offset the bias against housing consumption which is induced by local authority property taxes. To

the extent that rates are considered a tax on housing this might be sensible, however, if they are viewed as a fee for the provision of community services then property "taxes" are not a distortion.⁵³

Equity arguments view housing market interventions as instruments of income redistribution. Since ownership increases with income, policies which subsidise home-ownership are only meaningful when they target low income (or disadvantaged) households. However, these policies, and those which provide subsidised rentals to low income groups may be criticized on the grounds that, if income redistribution is the objective and choice is important, a more efficient intervention is to provide a untied cash payment.

The primary rationalisation for tied subsidies and in-kind provision would seem to be what Tobin (1970) has called "commodity egalitarianism". It is argued that not only does society care about income distribution *per se* but also about the distribution of particular commodities which are considered necessary. Kelman (1986) argues that one justification for in-kind provision is that individuals have a "right" to housing and therefore society should make sure they consume adequate housing, but they do not have a "right" to untied cash transfers even if these would lead them to consume as much housing. One interpretation of this is that poor housing is a very visible form of poverty which governments seek to deal with directly. Related to this point is the observation by some that tied and in-kind subsidies essentially reflect a paternalistic attitude of government towards the poor. This might be because the poor are frequently minority ethnic groups. Thurow (1976) argues that tied subsidies are optimal if the utility of the "giver" is taken into account.

Nichols and Zeckhauser (1981) suggests that in-kind transfers are used to discourage fraudulent claims by supplying inferior goods which only those who are genuinely in need would consume. This approach reduces consumption efficiency but increases programme efficiency by improving targeting.

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53. Rosen (1985) sees this approach as consistent with the "Tiebout Model" in which households "shop around for the community whose bundle of public services best suits their needs, and property taxes finance these services". (p. 378).

Finally, the concept of producer capture maintains that provision is, in part at least, a reflection of vested interests (eg. the building industry and public administrators) having political power.

5.2.2 *The Comparative Institutional Framework*

As we outlined in Chapter 1, a broader view of economic relationships is provided by the transactions cost literature. Within this type of framework, as Savage and Thompson (1988) have stated, "intervention is not analysed in terms of *market* failure, but more generally in terms of problems in the functioning of any form of governance structure. Hence intervention could occur in both market and non-market forms of exchange" (p. 26). In other words, since simple markets are not the only ways in which transactions are carried out, it is not very meaningful (with regard to efficiency objectives) to use intervention to correct for market "failure".

In practice this framework can be difficult to apply. In principle, Bollard *et al* (1987) suggest that the policy maker should examine the range of characteristics of the product or service in question (specificity, appropriability, uncertainty, etc) and consider what governance form it operates in and whether or not the mechanism used is the best alternative when measured against the general goals set by government - in particular to maximise efficiency and/or equity. In this way both intervention and "dis-intervention" can be analysed.

Treasury (1987) utilise this sort of approach. In fact many of the possible rationales for intervention which arise out of that analysis coincide with the more traditional framework. They include informational constraints, externalities, uncertainty and affordability. An exception is perhaps the question of incentives, and agency problems. Their conclusion is that most of these problems are not especially severe, with private institutional arrangements (eg. real estate agents, formal tenancy and purchase contracts) arising to accommodate them in most cases, although agency problems within the family may raise equity concerns.

Nevertheless the Treasury paper suggests that affordability of housing should be considered a major problem. Again, the policy issue here could be viewed as a more general one of income distribution although it is complicated by the discrimination which is evident in rental markets especially. Treasury suggests that this can persist partly because the predominance of small scale landlords makes enforcement of human rights legislation difficult.

5.3 Forms of Intervention

A range of possible options exist for government to pursue. They can broadly be categorised as, direct state provision of housing, tied subsidies and taxation, regulation, or general income support or macroeconomic policies with no direct intervention in the housing market *per se*. In practice, the mix of policies used depends on the perceived costs and benefits of different approaches and the range of policy objectives which government sets. As Table 6.1 indicates, current policies include elements of all these possible approaches and we consider issues related to each in turn.

5.3.1 Direct Provision

In New Zealand, state provision of rental units has historically been an integral part of overall social welfare policy and closely tied to particular events such as the highly visible poverty of the Depression and the housing shortages of the post-war years. Aside from this, arguments in favour of provision include the idea that the state can exploit economies of scale in construction, that it can act as a procyclical stabilisation policy in the building industry, it encourages innovation in design for disadvantaged groups who may have little market power (eg. the physically handicapped), and that it ensures consistent quality of housing for assisted households.

Arguments against provision largely revolve around its crowding out effects, the absence of choice and questions about whether less direct forms of intervention would achieve the same goals at less cost. Also, Treasury (1987) has argued that lack of "contestability" creates efficiency/incentive/accountability problems and that it is inappropriate for one institution (the Housing Corporation) to act as both provider and regulator in the rental market.

5.3.2 Subsidies/Taxation

Tied subsidies may be provided to either tenants (eg. the accommodation benefit, or more generally, housing vouchers) or landlords (eg. construction subsidies). Frequently they will take the form of tax rebates, concessions, or biases (eg. interest/expense/depreciation write-offs for landlords, or the non-taxation of imputed rentals for home-owners). They are sometimes implicit and thus not transparent.

Subsidies are generally viewed as a more efficient form of intervention than provision as they overcome many of the problems mentioned in the previous section. However, the most common criticisms are that they are paternalistic, (in the case of consumer subsidies, why not just give untied income support, which in theory, at least produces better welfare outcomes)⁵⁴ and that in practice they are poorly targeted. Harloe (1985), for instance, examines overseas evidence which shows that housing allowances tend to have limited take-up (perhaps due to the stigma attached to them), are often administratively complex, are slow to produce a supply-side response, and do not improve the quality of accommodation for low income groups. Smith *et al* (1988) conclude that in the United States they have been both vertically inequitable (higher income households receive higher benefits), and horizontally inequitable (not all eligible households on similar incomes are assisted equally)⁵⁵. Presumably many of these outcomes depend on the exact form of the programme in each case.

The major policy implication of the research on elasticities (earlier cited) is that, because on both the demand and supply sides they are low, subsidies probably have limited effectiveness. Although, as de Leeuw and Ekanem (1971) note in their work on rental supply, while it is generally true that policies to increase demand would partly serve to drive up rents, the results relate to changes in *average* demand. If the policies are targeted then the targeted group will likely differ in housing types, household composition, location, etc.

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54. That is to say, tied payouts increase the total consumption of the targeted group less than general income support schemes.

55. See also Murray (1975, 1980), Rosen (1985), and Piggott (1984).

While the research we have quoted certainly shows that elasticities vary among different groups, the direction of the relationships is not well established and thus neither are the policy implications.⁵⁶ Nevertheless, by definition, tied subsidies do produce a larger absolute housing supply response than untied schemes.

The major debate about taxation measures concerns the extent to which, by altering relative prices, they distort consumption and investment decisions. In many countries tax policies are biased in favour of home-ownership relative to renting. As Weiss (1978) shows, the general equilibrium implications of this depend on the exact structure of the policies (especially the treatment of landlords relative to other house owners). For instance, if ownership is favoured because there is no income tax on imputed rentals and no capital gains tax (for owner-occupiers or landlords), then "self-production" of housing services is encouraged and both equilibrium rents and house prices are raised. A capital gains tax on landlords but not owner-occupiers will raise equilibrium rents but lower house prices. Also Weiss shows that deductibility of mortgage interest payments for landlords but not owner-occupiers will lower equilibrium rents but have an ambiguous effect on house prices.⁵⁷

In the case of New Zealand, Brooks (1986) has shown that the tax system generally tends to favour home-owners but that inflation influences the magnitude and direction of the implicit subsidies involved. There are two reasons for this. First, individuals are taxed on their nominal interest income, thus as inflation increases the equilibrium interest rate increases and interest costs to the owner-occupier increase. This is an implicit tax on the owner-occupier. Second, as inflation increases the cost of debt to landlords declines (since their interest payments are tax deductible). If this is passed on to renters it becomes an implicit subsidy to them. Brook's results suggest that the outcomes vary depending on such things as the owner's equity in the house, marginal tax rate, and

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56. Eg. for low income groups, supply elasticities are probably higher than the average, but demand elasticities are lower.

57. Assuming no capital gains tax.

whether or not landlords are short or long-term.⁵⁸ The most important point is that the present tax rules produce a complex mix of net implicit taxes and subsidies.

Brooks suggests that the best solution is to apply tax to imputed rentals (as is done in a number of European countries) and to real rather than nominal interest.⁵⁹ Obvious political and administrative difficulties would confront such an option.

5.3.3 Regulation

Regulation may take the form of specific rent controls or tenancy and property transfer legislation, less direct town planning and building controls, or more general macro policies such as interest rate controls.

The most obvious problem with rent controls is that they are likely to disadvantage the low-income groups they are intended to help, since supply is reduced and the consequent rationing typically favours those who are most able to (and thus likely to) pay. Also, they are inclined to allow rents to lag behind cost changes and produce large discrete adjustments in rent levels. Interest rate controls produce similar problems in credit markets.

Tenancy law is used to specify the bounds of the tenant/landlord relationship, including the rights of each group. In terms of equity it is concerned with the fair treatment of the parties involved, although it does not directly deal with affordability concerns. From an efficiency point of view it attempts to limit the use of monopoly or monopsony power. Unfortunately the nature of the sector it operates in probably limits its effectiveness. Harloe's evidence indicates that in Europe, at least, the informal implicit nature of landlord/tenant relationships, and the number of small scale landlords, makes enforcement difficult, and awareness of the legislation's provisions is frequently poor among both parties. However, much depends on the degree of control that the legislation attempts. In Victoria (Australia); Core *et al* (1983) find that the

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58. For detail see Brooks, p. 18-21.

59. Or reduce inflation to zero.

State's Residential Tenancy Act has had little impact on supply, with taxation and town planning controls being more important forms of intervention.

Building codes are designed to ensure a minimum standard of housing. Town and country planning regulations are designed to promote optimal use of land and ensure that one use does not unnecessarily lower the value of the land in another use. If such regulation is poorly designed it may reduce efficiency. Some would argue that building costs are unnecessarily raised because of building codes, and that the availability of land for residential building is limited by out-of-date planning laws. The New Zealand Housing Initiative promoted by the Housing Corporation and Fletchers aims to identify and reduce these problems, among others.

5.3.4 Income Maintenance Policies.

As discussed earlier, the primary advantage of this approach is that, given equity is a goal of government, untied payouts are the most "efficient" policy, with household preferences determining how the subsidy is spent. The Housing Corporation (1988) concludes that the major problems with this sort of approach are that it fails to deal with the (assumed) "problem" of housing quality, does nothing to solve problems of discrimination or security of tenure, and does not aid those with special housing needs. Also, if income maintenance is strongly targeted, low income people may face very high effective marginal tax rates.⁶⁰

5.3.5 Macro Policies

As discussed in the previous chapter, housing plays an important role in the macroeconomy. Government intervention in housing is sometimes influenced by macroeconomic objectives. Similarly, macroeconomic policies overall have significant effects on provision of housing through incomes, interest rates, inflation, and investment demand. A stable macroeconomy may thus be one ingredient in overall housing market policy.

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60. Although better targeting of government expenditure should reduce tax rates for the population as a whole.

5.4 Summary

This chapter has been intended as a very brief overview of policy issues in relation to rental markets in particular and housing markets more generally. The first step in formulating policy should be to decide on the objectives. They may be very general (eg. overall economic efficiency and/or equity),⁶¹ or quite specific (eg. improving the quality of the rental stock). This will affect the mix of policies used. Importantly, if objectives in a particular sector are multiple, or the problems complex, then it is inappropriate to use a narrow range of policy instruments. For instance, income support policies may redistribute income but discrimination in access to housing may continue, in which case tenancy legislation may also be required. In practice the issue is not so much about whether intervention is appropriate but rather what form of intervention best achieves the goals set by government and the way in which multiple policies interact.

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61. Within which different priorities may exist. eg. are equity concerns related to fairness in "access", "process", or "outcomes". (Treasury, 1987).

6. SUMMARY: THE MARKET FOR RENTAL HOUSING

6.1 Introduction

6.1.1 *The Report*

The objective of this report has mainly been to review the characteristics of the residential rental market and to provide a statistical picture of recent trends. To a lesser extent a secondary object has been to comment on related policy issues. This chapter summarises the report and provides a time series overview of factors affecting changes in the market.

6.1.2 *Characteristics of the Housing Market*

The housing market is a very significant part of the economy. Housing expenditure made up 21.6 percent of household expenditure in 1986/7.⁶² In 1985/6, expenditure on residential construction made up 25.5 percent of total private investment. Housing makes up a large percentage of the country's capital stock and employs a significant percentage of the labour force. The rental market is a submarket of the overall market for housing, and closely integrated with it on the demand and supply sides. In 1986 23.2 percent of New Zealand households were in rental accommodation.⁶³

The operation of the housing market and any analysis of it is complicated by several important characteristics of the good "housing". First, there are, in a sense, two goods to be considered: a consumption good (housing "services") and an investment good (the physical housing stock). Consequently both consumption and investment decisions are of interest. An owner-occupier operates in both markets, while tenants are consumers of housing services and landlords are asset holders of housing stock.

Three other characteristics complicate matters: (a) Housing stock is an inherently durable asset. Net additions to the stock are small relative to the total and adjustment takes some time. Further, the

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62. Household Income and Expenditure Survey, 1986/87.

63. See Table 4.1

stock changes over time, improving via alterations and additions or declining due to lack of maintenance; (b) Housing is not a homogeneous good. It varies greatly in size, age, design, and condition. This makes comparisons between houses and house prices difficult; (c) Housing is not a mobile asset and hence location becomes an important part of the total housing "package"; and, (d) Housing markets are usually characterised by high degrees of government intervention. This makes it difficult to be sure what effects intervention has, since there is no "non-intervention" case to compare outcomes against.

Finally, because of the significance of housing as a component of consumption and investment, it has important links into many other markets. In particular the construction sector (land, labour and materials) and finance sector (mortgage and short-term commercial credit) are affected by developments in the housing market. Thus not only is the housing market influenced at a micro level by all the markets which determine housing costs and household incomes, but these markets are in turn affected by housing demand and supply at the aggregate level.

6.2 Demand Summary

The demand for rental housing depends on the overall demand for housing, and the tenure-choice decisions made by households. Overall demand for housing depends primarily on demographics, incomes and prices. Tenure choice depends on the interaction of an investment and a consumption decision. Investment demand depends on the return on housing relative to other investments and the household's desire to save. Consumption demand depends on prices, incomes, wealth, household preferences and the availability of public rental.

6.2.1 Overall Demand

Demographics have a strong influence on the number of households and therefore on the number of dwellings demanded. The age structure of the population, ethnic origin, marital patterns and external migration all affect the number of households. Between 1981 and 1986 New Zealand has had an aging population which increases the number of adults and thus the number of households.

There has been an increasing Maori and Polynesian population causing earlier family formation and the possibility of larger future families to partly counteract falling family sizes among Europeans. The percentage of adults who are married has fallen, and the proportion of single, separated and divorced people has risen. This also tends to reduce average household size and increases overall demand. Against this, net migration in the 1980s has generally been negative, reducing housing demand. This contrasts with the strong net inflows of immigrants during the 1970s which placed considerable pressure on the available stock of houses.

The level of a household's income is important in determining how much housing they are able to consume and to invest in housing. Income elasticities show how much housing demand responds to changes in income. Overseas evidence suggests they are generally inelastic, but vary widely according to the characteristics of the household. Renters, lower income people, and households with male heads seem to have lower income elasticities than owners, high income people and female headed households.

Income affects *investment* demand in two ways. If most of the household's expected income over its planning period is available in the current period, the household will have a strong incentive to save for future periods. This will make them more willing to invest in a house. The risk averseness of the household will partly determine whether they want to choose housing rather than another investment. In New Zealand, housing is seen as a relatively safe investment because house prices have tended to rise at a faster rate than prices generally.

In New Zealand, real incomes have fallen over the 1980s with larger falls being experienced by lower income groups. Although it is impossible to measure the "quantity" of housing consumed, we can see that the percentage of household expenditure on housing has risen. This is consistent with the idea that housing demand is income inelastic.⁶⁴

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64. That is to say, households have not reduced their housing consumption by the full amount of the fall in their real income and hence expenditure on it decreases on it relative to other goods.

The price of housing depends on house prices relative to other goods, financing costs, returns on alternative investments, rents and operating costs. Price elasticities are generally found to be inelastic or only slightly elastic. Changes in housing costs, particularly house prices, affect the choice of housing as an investment since capital gains are the major part of the return on housing.

Inflation has a very important effect on demand for housing both by increasing its attractiveness as an investment because of the tax advantages (compared to a nominal interest tax) and by raising the cost of ownership in the first years even though the real long term cost is fairly constant. In the period 1976-1982 the relative price of houses was declining. However between 1982 and 1988 housing costs have tended to grow faster than prices in general (as measured by the CPI).⁶⁵ This has an ambiguous effect on demand since it increases the cost of housing but also makes it a more attractive investment.

6.2.2 Tenure Choice

As mentioned above, housing demand revolves around both consumption and investment decisions. If a household chooses to invest in more housing than it wishes to consume, it will owner-occupy and may act as a landlord. However, if the household wants to consume more housing than it wishes to invest in, it may rent. Complicating the picture, there may be advantages relating to ownership (eg. tax concessions) which make it worthwhile for some households in this position to distort their decisions and invest in more housing than they would otherwise choose. The tenure choice decision also depends on the household's preferences and the availability of public rental.

Surveys of renters suggest that the advantages of renting are typically seen as mobility and no maintenance responsibility. The disadvantages are insecurity of tenure and the fact that no asset is acquired. The advantages of buying are perceived to be freedom to manipulate the home environment and security of tenure as well as financial security. On the other hand, maintenance responsibility and

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65. See Figure 2.2

cost, and rates, are frequently cited as disadvantages. Nevertheless these results are only averages and preferences may vary considerably between households.

In New Zealand, tenure varies strongly with age, with young people tending to rent.⁶⁶ Female headed households are more likely to rent than male headed households, and single, separated, and divorced individuals are more likely to rent than those who are married or widowed. Also, Maori and Polynesian people tend to rent more than Europeans and others. Income has a less clear effect on tenure patterns but when private and public renting are combined, renting declines as income rises. In relation to employment status, students, unemployed people and people temporarily on ACC are more likely to rent.⁶⁷

There are several constraints which determine how much a household can invest in housing. If they cannot afford to invest enough to satisfy their consumption demands, they must rent. The *economic* constraint looks at the costs and returns from housing over a long period of time and compares these with the household's income over the same period. This essentially determines how much the household would like to invest given a perfect capital market which would allow them to spread their costs appropriately. The *outlay* constraint looks at the costs of buying in the first period compared to income in that period (ie. initial expenditure). Households which wish to invest heavily in housing may not be able to because of the up-front costs. Finally, since banks require a deposit on a house before they will provide a mortgage, a *wealth* constraint may confront many potential buyers.

In New Zealand in recent years, the economic cost of buying has been lower than the outlay cost but both have risen in the 1980s after a low period around 1974/5. The economic price of buying has been consistently lower than that of renting but the outlay cost has

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66. These observations are not adjusted for income and wealth.

67. Nevertheless since the majority of the adult population are employed most renters have jobs. Likewise, although Europeans have a lower propensity to rent they make up the majority of renters.

been higher. The affordability of both ownership and renting (ie. housing costs relative to income) has been falling. Renting has become relatively less affordable than buying.

6.3 Supply Summary

6.3.1 Supply Characteristics

No good quality database exists to tell us who landlords are, and what type of property they own. A few limited sample surveys are the only source of information. These do provide similar profiles of supply, but probably exclude both larger scale, higher income landlords, and those individuals who rent out part of their home and reside with their tenants. This latter group probably make up a significant proportion of all landlords.

Nevertheless, from what information we do have, we know that:

- (a) Of the 60 percent of rental properties in New Zealand that are privately owned, most (perhaps around three quarters) are operated by individuals. The remainder are split between partnerships and companies;
- (b) There appear to be very few full-time landlords. Most of those who rent out residential property hold other jobs and are frequently self-employed. The majority of the landlords covered in the surveys (around two-thirds) administer their own properties;
- (c) While there is some variation in the socio-demographic profiles of landlords, they are most likely to be middle-aged, married males with above average (but not especially high) incomes. Rental income comprises, on average, about one quarter, or less of total earnings;
- (d) Those surveyed had been landlords for 9-10 years on average⁶⁸ and treated rental ownership as a long-term investment, with capital gains generally the major part of the overall return;

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68. This is the average period of ownership at the time of the survey, so does not reflect the total average length of time spent as a landlord (ie it is the "interrupted duration" of ownership).

(e) The strongest disincentives to acting as a landlord (for those who are) appear to be the costs of maintaining properties, and taxation. However, no particular change in their operating environment (whether economic or legislative) was strongly favoured as a way of encouraging an expansion in their rental operation (at least at the time of the surveys);

(f) It is not clear what factors produce a predominance of "small-time" landlords, but in the UK, North America, and Australia, a similar pattern of residential rental ownership is evident.

6.3.2 Factors Affecting Supply

Rather than outlining a detailed model examining factors affecting supply, we have simply set out to identify the major supply influences and examine recent patterns of behaviour. The main factors of interest are:

(a) Net rental cash flows: Although sensitive to the assumptions used, on average these appear to be either low or negative. This pattern is evident across different regions, types of rental property and different time periods, and coincides with survey data on landlord returns. To the extent the pattern varies, purpose-built flats, especially in the larger urban areas of Auckland and Wellington, appear to give the best returns of the period covered.

(b) Capital appreciation: While residential property was a consistently sound investment during the 1970s (in terms of capital gain), our rough estimates provide some evidence that both shares and commercial property may have provided slightly better or similar returns during the 1980s. The impact of this on supply has probably been moderated because of "landlord naivety" and a general reluctance by small scale investors to shift out of an area they are familiar with.

(c) Construction inputs: New housing construction (rental and others) tends to be closely related to economic conditions generally but, because of the nature of its inputs, slow to adjust to changes in demand. There is therefore a tendency for the supply of construction sector inputs to get out of alignment with demand. In particular, it would appear that the stock of new sections has been running down

in recent years. The range and complexity of building codes and land use regulations makes it very difficult to assess their impact on new construction patterns and costs.

(d) *Legislation:* Apart from building and town planning regulations, two main forms of legislation are likely to impact on rental supply. Tenancy and rent control laws in the past have, in practice, probably not had a great deal of influence on either rent levels or the quantity of accommodation. It is unclear whether the present Residential Tenancies Act has discouraged landlords from participating in the market, but overall the Act does not appear to be particularly onerous (It may even have had a positive effect).⁶⁹ In contrast, tax legislation has probably been more influential. The tax clawback provision will have made landlords cautious about entering the market since 1983, given their apparent dependence on capital gains. Future introduction of a capital gains tax could thus be important. Relatively high marginal tax rates in the past have contributed to poor cash returns.

(e) *Public Rental Supply:* Again, data in this area is not very satisfactory. Despite a net decline in Housing Corporation rental units between 1981 and 1984, its stocks are now steadily being replenished. At the same time, the targeting of provision has become tighter, with rent levels more closely related to tenant incomes. Public provision will affect the level of supply of private rental units, and both sectors will compete for construction inputs.

(f) *Other factors:* The long-term trend towards "gentrification" of older, inner-city homes has reduced the supply of houses-converted-to-flats in the larger urban area. Against this, there has been some shift towards encouraging higher density housing in inner-city areas.

6.3.3 Elasticity Estimates

Very few studies of rental supply elasticities exist. Those which do, appear to produce results which are very sensitive to the nature of the data used and equation specifications. While estimates vary

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69. In the sense of better defining tenant and landlord rights.

widely, supply tends to be inelastic with respect to rent levels. No satisfactory database exists from which reasonable estimates for New Zealand could be made.

6.3.4 The Rental Stock.

Unfortunately no long-term data series on the private rental stock exists. From recent census data we know that around one quarter of all private dwellings in New Zealand are rented and 60 percent of those are privately owned. This is in contrast to Europe where the majority of dwellings are usually rented with public provision and subsidies common.

Between 1981 and 1986 the private rental stock in New Zealand increased by about 6000 units while the total public stock fell by 4500 units. This is due mainly to a large decline in units held by government departments.

Roughly half of the private sector stock comprises houses rather than flats with the stock of houses-converted-to flats declining substantially since 1980 and numbers of purpose built flats remaining more or less static. Most blocks of flats in New Zealand are made up of just two or three units, there being very little large scale provision.

6.4 Changes in the Rental Market Over Time.

To summarise patterns of change in the rental sector, this section uses the factors influencing demand and supply identified earlier, in an attempt to explain observed changes in the rental stock (as a proxy for the size of the market; see Figure 6.1). The analysis is very superficial and the magnitude of the changes is not carefully considered.⁷⁰

The factors examined are: percentage change in the real value of new mortgage registrations; mortgage costs as a percentage of income; the ratio of rent to mortgage costs (1979-1988); net migration; net additions to Housing Corporation rental stock; number of occupied

70. Some possibly important factors are not included. For example, changes in the population's age and ethnic structure are ignored.

dwellings; legislative changes; real percentage return on rental; percentage change in house prices; and rate of consumer price inflation. For a summary of trends in these see Figures 6.2 to 6.10 at the end of this chapter.

6.4.1 The Seventies.

Because census data did not distinguish between private and other rental prior to 1981, we can only make very tentative comments on changes in the private rental stock during the 1970s.

The stock estimates presented in Chapter 4 (Table 4.3) suggest that between 1971 and 1976 the number of private units increased substantially, from about 136,000 to 180,000. It is likely that the most important factors which seem to have led to this increase over the period were: sizeable net immigration; a steadily increasing total number of households; rapid appreciation in house prices; and, a rising inflation rate. The other factors which we have examined appear less significant and in some cases probably encouraged a decline in private rental stocks.

In contrast, between 1976 and 1981 the stock contracted back to a level of 142,000, very close to that of 1971. It seems likely that the major influences in this case were: sizeable net migration outflows as the state of the economy deteriorated; increases in the Housing Corporation stock; and, declining relative returns on rental properties.

6.4.3 The 1981 - 1986 Census Period.

During this time we know from census data that the private rental stock increased slightly from 142,900 to 148,800 units. The accuracy of the data allows us to provide more detailed comments than in the above case.

The real value of mortgages fell in most years during this period, probably reflecting less movement into home ownership, and implying slightly increased demand for rental. Mortgage costs as a percentage of income were around 50 percent on average and fairly stable. This is historically high and may partly explain the decline in the real level of mortgages. Against this, the ratio of rents to

mortgage costs continued to rise although it remained below unity. Thus the overall effect of affordability of tenure, on demand for rental, is unclear.

There were net migration outflows in most years during the 1981-1986 period. This would have continued to depress rental demand but not by as much as in the previous five year period when large outflows were persistent.

Sales of stock to tenants ran down the Housing Corporation rental stock up to 1986, probably increasing the demand for private rental slightly. During this time the number of households rose at the same rate as the previous period, and thus would also have contributed slightly to an upward trend in rental demand.

There were two major legislative changes in the period. The first was the rent, wage, price, and interest rate freeze. The rent freeze could be expected to have discouraged the supply of rental housing significantly. Certainly this has been the experience with rent controls overseas. On the other hand, the interest freeze led to non-price rationing of mortgage funds and thus made entry to home ownership more difficult for some groups.¹ It is therefore again unclear what the net effect of the freeze was on the rental market.

The second legislative change was the introduction of the "ten year rule" which is a tax clawback on the capital gain made on properties when sold within ten years of purchase (see Chapter 3). This will have discouraged landlords from entering the market, and can be expected to have further reduced the supply of rental accommodation.

Although the cashflows of landlords appear to have remained low between 1981 and 1986, capital gains on rental properties were higher than in the previous period. Consequently the return on equity improved somewhat when measured against inflation and other investments. The major exception was the relatively high sharemarket return from 1984 onwards.

71. Presumably those least able to afford the purchase of a house and therefore most likely to rent.

In summary, both the fall in the Housing Corporation stock and the continuing increase in the number of households would have contributed to a growth in the private rental market, while net migration outflows would have reduced demand slightly. A number of other factors had less clear effects. Although mortgage costs remained at historically high levels, rents relative to mortgage costs rose. The price freeze also had ambiguous effects. Relative returns on rental properties initially improved, but the sharemarket "boom" in the latter half of the period may have made rental supply a less attractive investment.

6.4.4 Recent and Expected Developments

The real value of new mortgage registrations rose dramatically in 1986, but fell in 1987. In 1988, particularly since the October 1987 sharemarket "crash", mortgage finance has been available at lower rates with a wider range of packages being offered. This may have encouraged people to buy, although currently the housing market remains fairly weak.

Mortgage costs as a percentage of income fell in 1987 and rose again in 1988.⁷² These can be expected to remain high in the current recessionary environment where real incomes are unlikely to increase, and high real interest rates persist.⁷³ However, renting costs are also rising and, on the rough measure used, the rent to mortgage cost ratio has been above or close to unity. This suggests that those who can afford to pay a deposit will increasingly attempt to buy.

Net migration outflows have continued in the last two years. In the short-term this can be expected to continue given New Zealand's poor (relative) economic performance although the outflows are expected to reduce considerably over the next few years.⁷⁴

.....
72. As at March (approximately).

73. Presumably because of inflation expectations remaining high, although rates are slowly falling.

74. See NZIER forecasts, September 1988.

The number of households has continued to rise, with a slightly faster trend growth recently. This is expected to continue, especially given the expected continuing decline in household size.

The Housing Corporation rental stock has risen significantly in 1986 and 1987 and can be expected to continue to rise on the basis of present policies. This will reduce demand for private rental, although the effect might be mitigated slightly by reductions in rental units held by other government corporations (eg. Railways).

There have recently been two significant policy developments. The first is the "Homestart" scheme which assists low income households to pay the deposit on a house. This can be expected to reduce the number of unwilling renters in the future. Second, the Residential Tenancy Act 1987 introduced stricter tenancy laws. As noted earlier, it is not known what the net effect of the Act has been, but no substantial negative impact on rental supply is apparent.

The combination of declining rates of capital appreciation and high nominal interest rates will have depressed landlord rental returns. Falling inflation and the possible introduction of a capital gains tax may further reduce the attractiveness of residential housing as an investment.

In conclusion, a replenishment of Housing Corporation units, and poor rental returns will probably be the most significant factors limiting any expansion of the private rental market. Against this, to the extent that household size continues to fall, and the current migration outflows reduce, demand will increase. The main areas of uncertainty relate to the timing and scope of any improvement in economic conditions (and consequent fall in housing costs) and the nature of future policy changes.

6.6 Policy Issues

We have provided a brief overview of policy issues, beginning with a summary of current policies affecting rental markets (see Table 5.1). Importantly, this indicates that these policies are very diverse, ranging from direct public provision of rental units to

macroeconomic policies which affect financial market conditions. Because the policies have not developed in a coordinated manner their effects are at times not obvious and indeed may conflict.

The overall objective of housing policy has usually been to ensure the availability of some minimum standard of housing to all who require it. Traditionally intervention has been justified on both efficiency and equity grounds. A common efficiency argument is about the existence or otherwise of externalities. While there is evidence they exist, the question is usually whether the more fundamental problem is one of poverty, and if so, how that is best dealt with. A further approach is to focus on whether market failure exists. While the housing market is difficult to characterise as "perfectly competitive", so too are many other markets. As the comparative institutional framework shows, using intervention to push a particular type of transaction closer towards the ideal "market", ignores the fact that very few exchanges occur in that environment and that in fact a range of institutional environments arise.

Equity rationales are usually about the affordability of housing and whether housing policies should be an instrument of income distribution. Here the debate centres on the most appropriate form of intervention. If poverty rather than poor housing is the issue of concern, why should the government be involved in either actual provision or tied subsidies? Some argue that in this case more general income maintenance policies are a more "efficient" form of intervention. The contrary approach is to argue that such policies fail to deal with problems of adequate minimum standards, discrimination, and security of tenure.⁷⁵

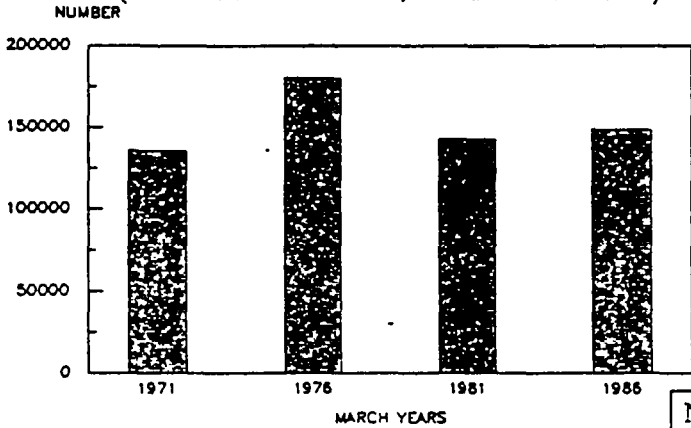
6.6 Concluding Comments

The residential rental market is a sector characterised by frequently informal and implicit relationships. Tenants typically rent reluctantly and temporarily. Landlords face no particular barriers to entry and exit from the industry and are usually small scale operators. Factors such as these create obvious problems in analysing the sector, there

75. For a more detailed summary of the arguments for and against particular forms of intervention, refer to Section 5.3.

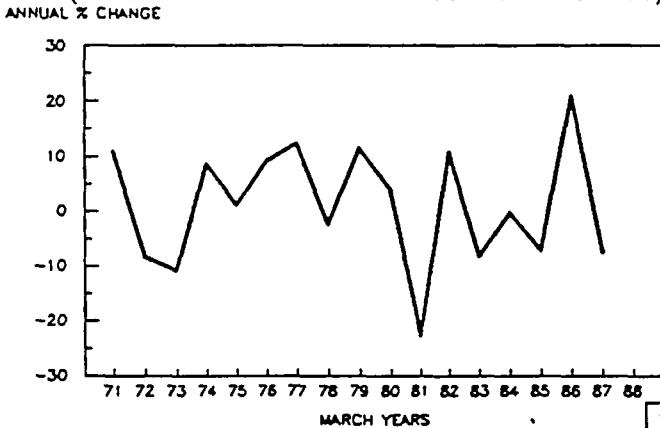
being no good quality database despite the market's importance. Not only does this make it hard to accurately describe the rental market's composition and functioning, but more importantly, it becomes difficult to assess the validity or otherwise of the various policy options. This report has thus been an initial attempt to bring together the available information on the New Zealand rental market to provide a basis for further analysis rather than to draw firm conclusions.

FIGURE 6.1 : PRIVATE RENTAL STOCK
(1971-76 ESTIMATES, 1981-86 CENSUS)



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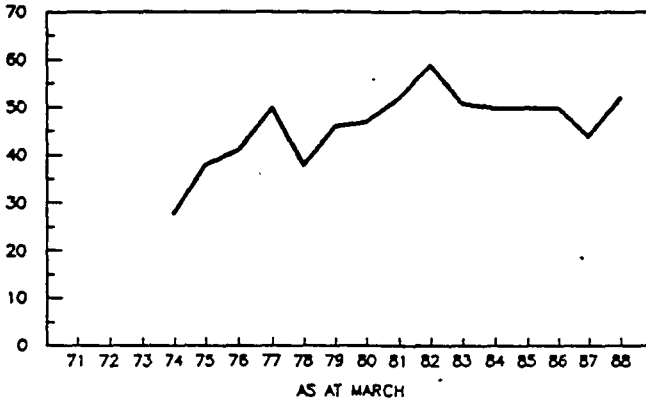
FIGURE 6.2 REAL VALUE OF MORTGAGES
(% CHG MORTGAGE - % CHG HOUSE PRICE)



NZIER

FIGURE 6.3 : MORTGAGE COSTS AS % INCOME
(SOURCE; TABLE 2.22, 25% DEPOSIT)

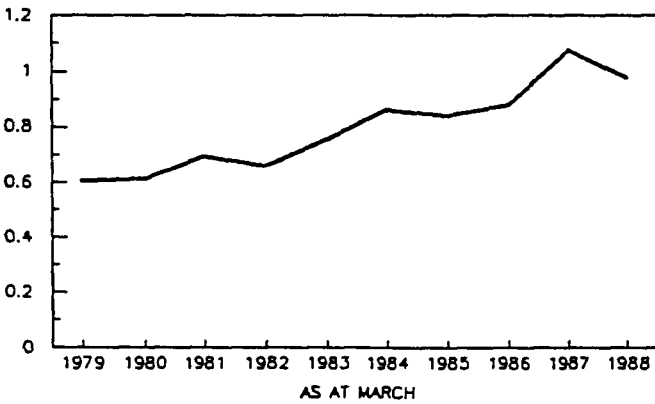
PERCENT



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FIGURE 6.4: RENT TO MORTGAGE COSTS RATIO
(TABLES 2.22 & 2.33, 3 MAIN CENTRES)

RATIO



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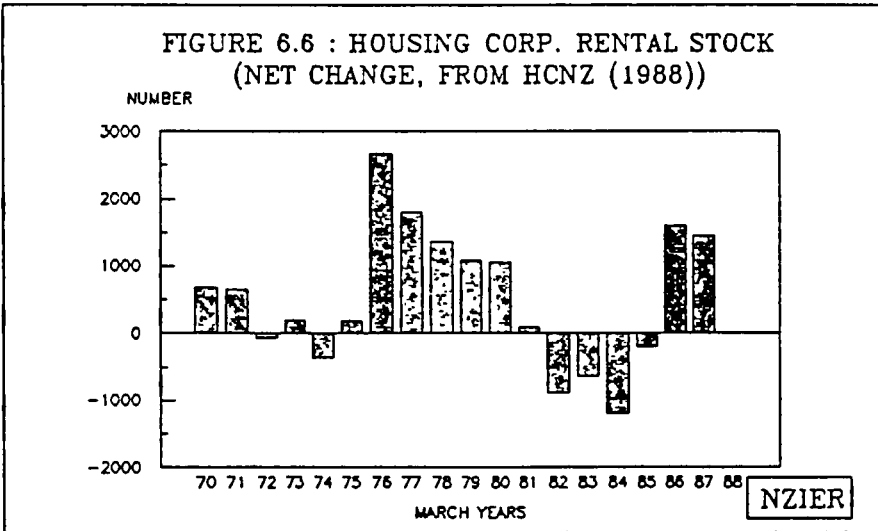
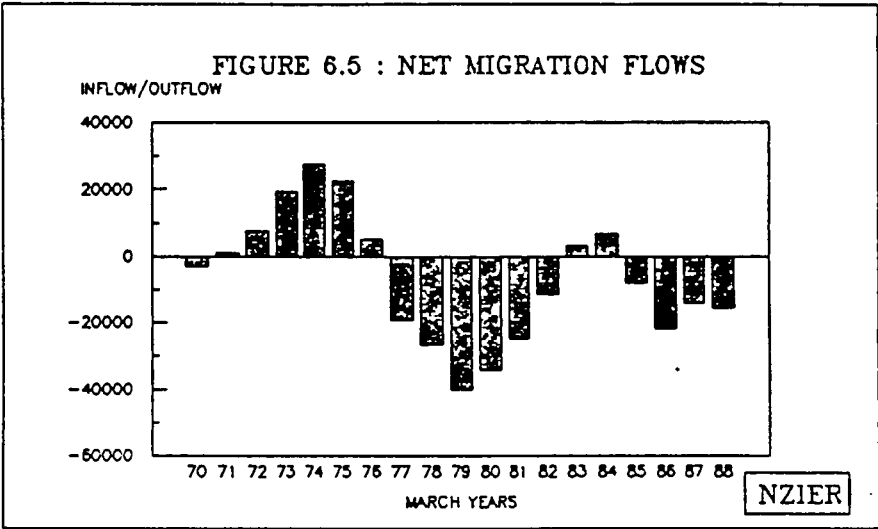


FIGURE 6.7 : NO. OF OCCUPIED DWELLINGS
(PROXY FOR NO. OF HOUSEHOLDS)

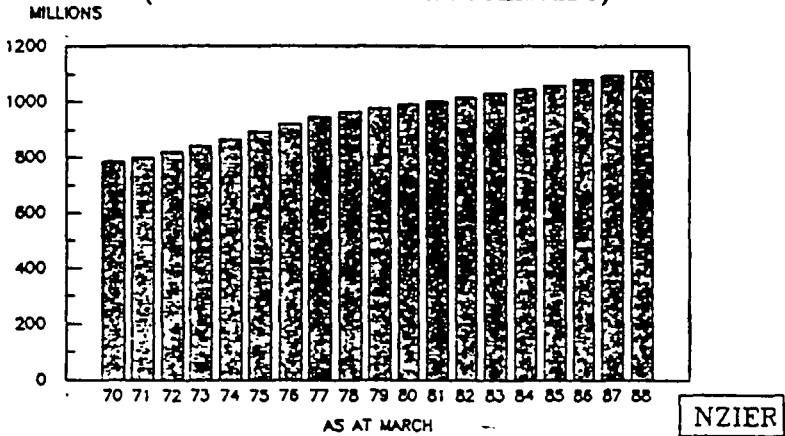
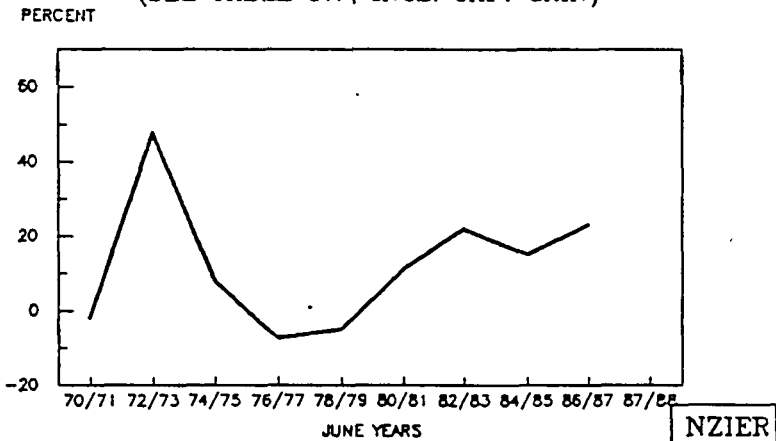
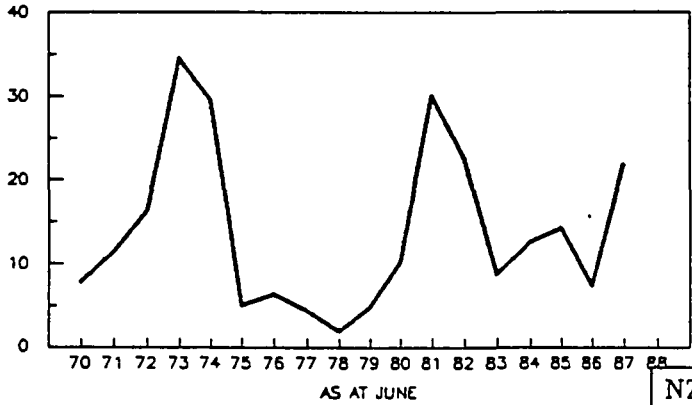


FIGURE 6.8 : REAL RETURN ON RENTAL
(SEE TABLE 3.7, INCL. CAP. GAIN)



**FIGURE 6.9 : HOUSE PRICES, % CHANGE
(VALUATION NZ, HOUSE PRICE INDEX)**

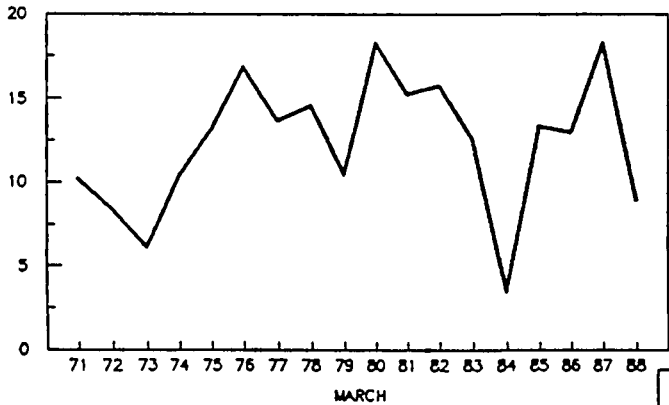
ANNUAL PERCENT



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**FIG 6.10 : CONSUMER PRICE INFLATION
(ANNUAL % CHANGE)**

PERCENT



MARCH

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