ON THE AGENDA: THE DEMOGRAPHIC CHALLENGE TO RENTAL HOUSING POLICY IN CANADA

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INTRODUCTION AND SUMMARY

INTRODUCTION

This research study on the future of Canada's renter population was prepared by an employee of Canada Mortgage and Housing Corporation, while on secondment as the first CMHC "Expert-in-Residence" in the Corporation's Centre for Future Studies in Housing and Living Environments. The sabbatical has given me the opportunity to research and reflect on issues that have concerned me for many years. This paper presents what I consider to be a "plausible" scenario for potential changes in rental housing affordability problems during the period 1986 to 2001, provides some new data related to rental housing in Canada, and offers some new interpretations of long-standing housing policy issues. The intent of this paper, and in fact of the Centre for Future Studies, is to provoke and inform discussion on a forward-looking housing policy for Canada.

The body of the paper contains 9 chapters. The first two chapters develop demand-side information on the renter population - on the demographic profile of renters and on housing affordability. Chapters 3 and 4 look at the supply-side. Chapter 3 considers vacancy rates, rents, rent increases, and past changes in the supply. Chapter 4 interprets the historical supply-side events and develops speculations about the future. Taken together, Chapters 1 to 4 develop background information which is used in Chapters 5 to 7 to project futures for the renter population. Chapter 5 shows projections of demand for rental housing for the years 1986 to 2001. Chapter 6 develops a "base case" projection of future affordability. Chapter 7 revises the base case, based on an assumption hat rents will increase in real terms. Chapters 8 and 9 discuss policy issues. Chapter 8 looks at rent controls. Chapter 9 highlights other policy issues and opportunities. Appendix "A" contains some data on housing affordability by geographic region of the country. Appendix "B" contains a short note on concepts of housing affordability.

Six inter-related themes run through the paper.

1. Demographic Change Could Affect Future Housing Affordability Conditions

Looking at demographic change alone, ignoring any potential changes in future tenant incomes and housing rents, by the year 2001 there could be a small increase in the incidence of housing affordability problems among renter households. The number of households with affordability problems would increase substantially.

It is a certainty that there will be a shift in the age distribution of households with affordability problems. There will be relatively fewer younger households with problems and more problems among older households - for whom the passage of time is unlikely to bring financial relief (unlike younger renters).

2. Supplies and Rents of Rental Housing Will Be Under Pressure During the 1990's

A combination of events will reduce the incentive to invest in rental housing.

- Real estate markets will be soft compared to the 1970's and 1980's, reducing expectations concerning future capital gains. This will negatively affect expectations about the long-term profitability of investing in rental housing.

- Tax reforms, which have aimed at improving the fairness of the income tax system, have particularly affected rental housing, which has historically provided significant opportunities for tax sheltering.

Both of these factors dictate that rents will have to increase in real terms in the 1990's in order to stimulate adequate levels of private sector investment.

3. Solutions to Rental Housing Affordability Problems Will Become More Expensive

The combination of demographic forces and increasing rents is a potent one, implying a huge increase in housing affordability problems. The future costs of potential housing programs - especially for market-based solutions to affordability problems (such as shelter allowance programs and rent supplements) - are very uncertain. There is substantial risk of escalating program costs.

4. Most Policy Analysis Assumes (Mistakenly) that Corporations are the Natural Suppliers of Rental Housing, and that High Density Housing is the Natural Form

Since the early 1970's, an evolution in the nature of returns earned by rental housing has caused corporate investors to lose interest in rental housing but has caused increased interest on the part of individual investors. In general, corporations should no longer be expected to provide rental housing supply and it is inappropriate to target subsidized housing supply programs at them, or to be preoccupied with private market production of rental housing in high density forms.

The natural preference of individual investors is for low and medium density housing forms. Initiatives to increase supplies of rental housing should be targeted at these investors, and the first approach should be regulatory reform which removes barriers to construction and investment in low and medium density rental housing.

In some (usually large) urban areas where high density development is the norm it may be impossible for individuals to create adequate supplies of rental housing. In these markets corporate investment will be required. The most frequently-suggested approaches for encouraging corporations to invest in rental housing involve either much higher rents for all tenants, or high subsidies. Either approach carries high private or public costs. There is a need to search for structural initiatives which can stimulate investment without incurring these costs.

5. Rent Controls Matter - Sometimes - But Not as Much as Some People Think

Rent control alone is not a satisfying explanation for undersupply in rental housing markets. Undersupply (as indicated by low vacancy rates) is just as common among uncontrolled as among controlled markets. A more satisfying explanation for conditions of undersupply is found in the historic patterns of development of specific urban areas. A pattern of high density development imposes a binding constraint on opportunities for individuals (the new "natural suppliers") to invest in low and medium density housing, especially when it is combined with restrictive regulation of land use.

In those undersupplied markets policy makers face very difficult choices - whether or not there is rent regulation. To attract investment from corporations may require much higher rents, which would result in future affordability problems that are much greater than the scenario presented in this paper.

The intent of any rent control program should be to balance consumer protection against the need for private investment.

- To prevent discriminatory rent increases.

- To prevent large rent increases during short-term periods of excess demand.

- To permit gradual adjustment of rents to levels which are adequate to encourage investment.

Rent control has not prevented an increase in the extent of affordability problems. Improving housing affordability is not a realistic objective for rent control.

6. For-Profit Rental Housing Is Not the Only Possible Mode

Every effort should be made to find vehicles which permit unsubsidized housing investment by non-profit and cooperative groups, and then to encourage and facilitate investment.

Continuing subsidies are also required to create supplies of low and moderate rent non-profit and cooperative housing.

SUMMARY

Chapter 1 - Who Lives in Rental Housing?

The roles of life-cycle and income in household formation and tenure choice are reviewed. The young and the old (especially the childless) tend to choose rental tenure. Lower income households are more likely to rent and less likely to own than are the better-off.

Between 1981 and 1986, household formation rates and tenure choices for the young (under 35 years old) and older age groups changed in distinctly different ways. The under-35 groups became less likely to form households ("headship rates" fell). Among younger households a greater proportion were renters in 1986 compared to 1981. For age groups of 35 and over, household formation rates increased and there was a shift towards homeownership.

These changes are attributed to labour market conditions and changes in relative wage rates.

- For all age groups, the proportion of the population which was employed ("employment-population ratios") fell during the 1981-82 recession. The age groups up to age 34 recovered most slowly and their employment-population ratios had not yet fully recovered to 1981 levels by 1986. The 35 to 54 age groups, on the other hand, had fully recovered by 1985. For the 55 to 64 age group the ratio has continued to decline, but this has not affected its headship rate.

- A Statistics Canada study has shown that incomes became increasingly polarized during 1981 to 1986. The proportion of the employed who fell into "middle" income ranges fell, while the proportions in the lower and upper ranges increased. This is known as the "shrinking middle" phenomenon. This has an

age dimension: relative wage rates fell for the under 35 population (but especially the under-25 population) and rose for the older age groups.

These events explain why household headship rates fell for the under-35 population but rose for the 35 and over age groups.

Whether the changes in labour market conditions and incomes are temporary or lasting cannot be known. If they are lasting, they would have long-term effects on the household formation and tenure choices of future generations. Even if they are only temporary, the generations which were adversely affected during 1981 to 1986 could continue to suffer into the future in terms of income, wealth, household formation and tenure choice.

Traditionally, income has been a major factor in determining housing tenure choices between homeownership and rental. The relationship between income and tenure became more pronounced during 1981 to 1986. In the lowest income ranges (under $12,000 per year, in 1985 constant dollars) there was a shift towards renting and in higher income ranges there was a shift towards homeownership. As a group, Canada's renters became relatively more poor between 1981 and 1986.

PERCENTAGE DISTRIBUTION OF RENTER HOUSEHOLDS
BY INCOME RANGES, IN 1985 CONSTANT DOLLARS
1981 AND 1986 CENSUSES

Income Range	1981 Census (1980 Income)	1986 Census (1985 Income)	Percentage Point Change
nil (1)	1.0%	1.3%	+ 0.3
$1-7999	16.1%	15.3%	- 0.8
$8000-11999	10.2%	14.3%	+ 4.1
$12000-19999	19.1%	19.4%	+ 0.3
$20000-27999	17.0%	16.6%	- 0.4
$28000-39999	19.0%	17.9%	- 1.1
$40000 and over	17.6%	15.3%	- 2.3
All Incomes	100.0%	100.0%	nil

Note: (1) Includes negative incomes.

Chapter 2 - The Affordability of Rental Housing

This chapter profiles housing affordability in 1986 and changes which occurred during the 1980's.

Assuming that a household which is paying more than 30 percent of its income for shelter has an affordability problem, problems are much more severe among renters

(34.1 percent of renters had an affordability problem in 1986) than among homeowners (11.9 percent incidence).

Among renters, the incidence of affordability problems is related to income level, age group, and household type. Income is the predominant factor.

- Income. Among renter households with (1985) incomes under $12,000, 75.9 percent had an affordability problem; for households with incomes in the range $12,000 to $19,999, the incidence of problems was 41.2 percent; and for renters with incomes of $20,000 and over, 5.1 percent had an affordability problem.

- Age. The incidence of affordability problems is highest for the youngest age group (under 25 years). The lowest incidences are for the prime working age groups (25 to 54 years). After age 55, the incidence of problems rises.

- Household type. The highest incidences of affordability problems are for lone parent families (56.8 percent incidence) and non-family households (41.2 percent incidence). Two-adult households (couples, with or without children) have much lower incidences of problems.

The incidence of renter affordability problems rose between 1981 (29.6 percent) and 1986 (34.1 percent), and the number of renter households with affordability problems increased by 220,000, an average of 44,000 per year.

For each household with an affordability problem, there is a gap between what they can afford to pay for rent and the amount which they actually pay. In 1986, the total of all renter affordability gaps was $2.7 billion, which was 77.5 percent greater than in 1981. After accounting for inflation, the real increase in the total affordability gap was 34.5 percent ($690 million in 1986 dollars).

The increases in the incidence of affordability problems and in the total affordability gap were partly due to demographics - the household types with the greatest problems have been growing most rapidly. However, the majority of the increase in renter affordability problems was due to changes in incomes and rents.

- Median renter incomes fell in real terms for 19 of 28 cohorts (and often by large amounts).

- The average rent increased by 3.5 percent in real terms.

DECOMPOSITION OF CAUSES FOR INCREASE
IN AFFORDABILITY PROBLEMS AND
AFFORDABILITY GAPS, 1981 TO 1986

	Renter Households with Affordability Problems	Affordability Gap in Millions of 1986 Dollars
1981	927,316	$1,997 M
1986	1,148,897	$2,687 M
Change 1981-86	+ 221,581	$ 690 M
Change due to Demographics	+ 79,408	$ 191 M
Change due to Incomes	+ 76,787	$ 286 M
Change due to Rents	+ 49,765	$ 162 M
Change due to Interactions	+ 15,621	$ 52 M

Chapters 6 and 7 contain slightly different estimates of households with affordability problems and of affordability gaps because they use a slightly different database from the 1986 Census. A Canada Mortgage and Housing Corporation study of "core housing need" has found that the affordability of rental housing continued to worsen until at least 1988.

The relationship shown in Chapter 2 between demographic characteristics and affordability implies that affordability problems could continue to increase in future.

- The household types with the highest incidences of affordability problems (lone parent families and non-family households) will continue to grow most rapidly.

- The age group which has the highest incidence of problems (under 25 years) is shrinking, which implies a reduction in problems, but the 55 years and older age groups, which also have high rates of affordability problems, are set to increase in size.

Chapter 3 - The Supply of Rental Housing

Chapter 3 profiles the existing supply of occupied rental housing (including rent levels) and shows changes which have occurred. This is done for two reasons. First of all, it identifies supply-side events which have affected housing affordability. Secondly, it creates a base of information which can be interpreted and used to project future supply-side events (in Chapter 4).

Vacancy rate data for April 1990 show that most rental markets in Canada are balanced in terms of supply and demand, although markets in southern Ontario and southern British Columbia are undersupplied. Whether or not markets are undersupplied does not seem to be related to the existence of rent control. The data suggest that rental markets with high average project sizes are more likely to

be undersupplied than are markets in which project sizes are smaller. This finding is explored in Chapters 4, 8, and 9.

A key factor in housing affordability is that there is a substantial mismatch between the rents which renters can afford to pay and the actual rents available in the existing housing stock. The number of low rent units (especially for units with rents of less than $200 per month in 1986) is much smaller than the number of renters who can afford only low rents. Furthermore, the available low rent housing is not necessarily occupied by low income people: large proportions of the low rent housing stock are occupied by households who could afford to pay much more.

Most of the supply of modest rental housing is either in older structures or in housing which is subsidized by government, an employer, or a relative. The private unsubsidized market seemingly does not build new supplies of modest rent housing. Between 1981 and 1986, there was a large reduction in the stock of housing renting for less than $300 per month (in 1986 dollars). All of the net growth in the occupied rental housing stock was in rent ranges of $500 per month and over.

CHANGES IN THE STOCK OF OCCUPIED RENTAL HOUSING,
BY RENT RANGE, 1981 TO 1986
IN 1986 CONSTANT DOLLARS

Census Period	Under $300	$300 to $499	$500 to $699	$700 and Over	N/A (1)	All Rent Levels
1981 Census Number	1151473	1395228	393218	179292	9738	3128949
1986 Census Number	878981	1666827	568071	247283	7086	3368248
Change	-272492	+271599	+174853	+67991	-2652	+239299

Note: (1) Units for which rent "does not apply" (farm dwellings).

Modest rental housing in older structures (built in 1960 or earlier) has been under pressure from demolition, conversion, and abandonment. Very large loss rates were seen during 1971 to 1981 (an average of 25,600 units per year). It is speculated that the losses were brought about by two processes. The first was due to a boom in urban real estate markets, which encouraged demolition and reinvestment. The second was rural population decline.

Even though rents for "constant quality" housing apparently fell in real terms during the 1970's, average rents actually rose by 10.5 percent in real terms. This is due to upgrading in the quality of the housing stock.

In the first half of the 1980's, soft real estate values inhibited investment (and the loss rate of older rental units fell to 11,500 units per year). Real rents increased by 3.5 percent between the 1981 and 1986 Censuses. This increase partially explains the increase in affordability problems which was seen in Chapter 2. Real rents continued to increase during the second half of the 1980's.

The 1970's and the first half of the 1980's were very different in terms of growth rates for the rental housing stock and investment in unsubsidized rental housing. Unsubsidized investment was clearly much stronger in the 1970's (43,000 units per year) compared to the early 1980's (20,500 units per year).

GROWTH IN THE OCCUPIED RENTAL HOUSING STOCK
COMPARED TO FEDERAL AND FEDERAL/PROVINCIAL PROGRAM ACTIVITY

	June 1971- May 1976	June 1976- May 1981	June 1981- May 1986
Growth in Occupied Rental Stock	336,200	412,249	239,299
Subsidized Units	120,469	196,619	136,771
Unsubsidized Growth (Net)	215,731	215,630	102,528

In the 1990's, program activity by the federal and provincial governments is anticipated to create between 16,000 to 31,000 rental units per year. Since the average annual requirement between 1986 and 2001 is 55,000 units, unsubsidized investment will be called upon to create 24,000 to 39,000 rental units per year, in addition to any requirements for replacement of demolished, converted, and abandoned housing.

Chapter 4 - Factors Affecting the Supply of Rental Housing

Chapter 4 review investment conditions in the rental market during the 1970's and 1980's, in order to provide a framework to assess the outlook for the 1990's.

In the post-World War 2 period until the late 1960's, investments in rental housing could be relied upon to provide an annual cash flow dividend to investors. This supported the creation and growth of large integrated real estate companies, who used the cash flows to finance growth, especially during the 1960's.

Beginning in the late 1960's and early 1970's, increasing inflation and interest rates changed the nature of returns. Inflation led to interest rate increases, which increased costs of debt service: new rental housing investments were faced with negative cash flows. But, besides causing costs to increase, inflation also created an income, in the form of capital gains.

This new environment was generally not suited to the needs (for cash flow) of the corporate investors, but was attractive to high income individuals, especially since the tax system provided opportunities to use rental housing investments to defer taxes on income from other sources. Deductibility of Capital Cost Allowances and soft costs could be used to shelter income from taxation. In periods of inflation, rental housing becomes an even better tax shelter, since the inflation component of interest rates is fully deductible as an expense but capital gains (which are due at least partly to inflation) are not fully taxed. (Capital gains were not taxed at all until 1972.)

A review of supply-side factors also has to consider changes to income tax rules which occurred during the 1970's and 1980's.

The 1972 tax reform substantially reduced opportunities for tax sheltering through rental housing investments. It disallowed the use of Capital Cost Allowances to reduce taxable income from sources other than real estate, except for firms whose "principal business" was in real estate and for insurance companies. A capital gains tax was also introduced (one-half of capital gains to be included in income).

It was expected at the time that the 1972 reform would reduce investment in rental housing, which would cause rents to increase. The expected adjustment process began, but it was truncated by three events. In 1974, there was a partial relaxation of the 1972 reform. Investors in Multiple Unit Residential Buildings (MURB) - were allowed to use Capital Cost Allowances to reduce taxable income from other sources. Secondly, the real estate boom of the mid-1970's created incentive to invest in expectation of capital gains. Thirdly, rent controls were introduced by all provincial governments

In this interpretation, the 1970's was a boom-time for investment in rental housing, in spite of the exit of corporate investors from rental housing market. Data in Chapter 3 showed that there were high levels of unsubsidized investment in the 1970's. Corporate investors were replaced by individuals, partnerships, and small companies (although the corporations were not totally replaced in certain major markets). Furthermore, opportunities to construct and sell new rental housing were still available to the corporations. The "lagging rent phenomenon" of the 1970's can be seen mainly as the result of the high levels of investment, although rent controls may have limited rent increases in undersupplied markets and housing supply programs may have put downward pressure on rents.

In the late 1970's and early 1980's, conditions were almost the exact opposite of the mid 1970's. Interest rates increased in both nominal and real terms. Expectations in real estate markets were deflationary. Furthermore, MURB lapsed between January to September 1980 and was finally terminated at the end of 1981. During this period, there was little unsubsidized investment and rents increased in real terms.

Investment may have recovered in the mid to late 1980's. Capital appreciation resumed in most areas and became hot in major markets, particularly in southern Ontario and on the west coast. In addition, good prospects for capital gains coincided with the introduction of the $100,000 lifetime capital gains exemption. In most of the country it seems that there were good levels of investment activity, although the investment did not come from the large corporations who are now seen (erroneously) as the traditional suppliers of rental housing. It came from individuals, partnerships, and small companies, and the investment was often in housing forms which are convertible to homeownership - low density housing and registered condominiums.

In most areas, vacancy rate data indicate that supply and demand are in balance. In other words, individual investors have fully replaced corporate investors. However, there are a number of major markets which are undersupplied. These markets are characterized by having high average sizes of rental projects. Chapter 4 argues that in these markets, there are binding constraints on opportunities for individuals to invest in rental housing.

At the beginning of the 1990's, conditions are becoming less favourable for rental housing investment. Tax reforms in the 1980's continued the federal government's efforts to increase fairness in the tax system by reducing tax sheltering opportunities. In terms of rental housing, the most significant changes were that the maximum rate for Capital Cost Allowances was reduced by 1 percentage point to 4 percent, that strict limits were imposed on soft cost deductibility, and that the rate for including capital gains in taxable income was increased to 75 percent, except for capital gains exempt under the $100,000 lifetime limit. Since rental housing has traditionally been an attractive tax shelter, these changes can be expected to reduce rental housing investment. Secondly, because demographics are becoming less favourable for housing demand, it is likely that during the 1990's real estate will not appreciate in value as quickly as it did in the 1970's and the second half of the 1980's. Capital gains - the most important component of profits from rental housing - will be reduced. The prospects for mortgage interest rates have not been assessed, but will also affect profits and investment during the 1990's.

Investment in rental housing will be reduced, which will result in lower vacancy rates and cause rents to increase in real terms. Chapter 4 concludes that for the 15 years from 1986 to 2001, it is reasonable to expect rents to increase in real terms at the same annual rate as during 1981 to 1986. This results in a 10.8 percent increase in monthly rents, or an average of $46.50 in 1986 dollars. The greatest pressures will be in markets which are already undersupplied.

Chapter 5 - Potential Demand for Rental Housing

In the most likely scenario, the total number of households (owners and renters combined) is projected to grow by 2.64 million between 1986 and 2001, an average of 176,000 per year. The growth rate for homeowner households (32.4 percent) will exceed the rate for renters (24.4 percent). The shift towards homeownership is due to the aging of the population, especially the passage of the baby boom into the prime homebuying years.

The total number of renter households will increase by 827,000, to 4.21 million in 2001, an average of 55,000 per year. Non-family households will continue to be the fastest growing household type. By 2001, one-half of renter households will be non-family. The renter population will become relatively older as a group. Between 1986 and 2001, the proportion of of renter households whose household maintainer is aged less than 35 years is projected to fall by 10 percentage points (to 35.3 percent). The shares for the 35 to 54 and the 55 and over age groups rise by 6 percentage points and 4 percentage points respectively. When the change in household composition and age distribution of the renter population is combined with information on affordability and incomes (from Chapter 2), it seems likely that the economic circumstances of the renter population will worsen between 1986 and 2001.

Chapter 6 - The Renter Population in 2001: A Possible Future

The economic profile of the renter population in 1986 (incomes, rent ranges, rent-to-income ratios, and affordability gaps), which was developed in Chapters 1 and 2 is combined with the projections of potential demand from Chapter 5, in order to develop a "base case" scenario for the economic circumstances of the renter population in the year 2001. This scenario considers only demographic factors. It ignores potential changes in real rent levels and incomes.

Demographic change results in a small increase (from 35.0 percent to 35.6 percent) in the percentage of renters with affordability problems (paying more than 30 percent of income for rent), but the number of renter households with affordability problems rises by 315,000, to a total of 1.5 million in the year 2001. This is an increase of 21,000 per year, which is roughly equivalent to annual commitments of low income housing under federal/provincial social housing programs. The total affordability gap rises by $700 million, to $3.5 billion (both figures are in 1986 dollars).

When a younger household has an affordability problem, it can sometimes be seen as transitory. There is a likelihood that income will increase as the household moves into the prime working ages, and there is a good statistical probability that the household will eventually move to homeownership. For an older household (especially one whose head is 55 years or older, an affordability problem is more likely to be permanent. The projections indicate clearly that because of the aging of the population, affordability problems will become relatively more concentrated among older age groups.

The method used to develop the base case scenario implies that the rental stock with rents under $300 per month (in 1986 dollars) will have to grow by 260,000 units. The stock renting for between $300 to $499 per month will have to expand by 365,000 units. Less growth will be required for more expensive rental housing with rents between $500 to $699 (130,000 unit increase) and $700 and over (72,000 increase). These requirements are not consistent with actual experience of 1981 to 1986, when the low rent stock shrank by a large amount (this was shown in Chapter 3), and with the conclusion of Chapter 4 that rents will have to increase in real terms in order to generate new supply during the 1990's.

Because of the inconsistency, it is concluded that the future described in this chapter is unlikely to occur. The following chapter examines an alternative scenario, which uses the same approach but in which monthly rents are increased by $46.50 (in 1986 dollars).

Chapter 7 - A Plausible Alternative: The Affordability of Rental Housing in 2001

Using an assumption that monthly rents in 2001 will be $46.50 higher (in 1986 dollars) than 1986 rents, the incidence of affordability problems rises to 44.1 percent versus 35.0 percent in 1986 and the number of renter households with affordability problems jumps by 670,000 to 1.86 million. The increase of 45,000 per year is double the current rate of low income housing commitments. The total affordability gap rises to almost $4.5 billion (in 1986 dollars).

There is a pronounced shifting of affordability problems into older age groups in this scenario. Households whose maintainer is aged 55 and over account for 40.9 percent of affordability problems in 2001, compared to 31.9 percent in 1986. In these older age groups, unlike the younger groups, renters cannot look forward to a future of improving economic circumstances or to a future move into homeownership.

Most of the increase in affordability problems is among low income households. Five-eighths is for households with incomes (in 1985 dollars) between $1 and $11,999. Only 2.6 percent of the increase in affordability problems is for households with incomes over $28,000 per year. This implies that there is limited potential for renters to solve their affordability problems by moving to homeownership or to more modest rental housing.

These projections can fairly be seen as highly speculative: they depend upon some quite strong assumptions, the strongest one being that for each cohort its income distribution will be the same in 1986 as in 2001. While it is far from certain that this projected future will come into being, the projections raise a warning. They indicate a possibility of very substantial increases in renter affordability problems between 1986 and 2001. Equally important, they indicate clearly that there will be a shift in the composition of households with affordability problems. Problems will become more concentrated among older households, who will not be able to look forward to future improvements in their economic circumstances.

Chapter 8 - Do Rent Controls Matter?

As a generalization, proponents of rent control argue from a social development and consumer protection perspective. Opponents are chiefly concerned about economic efficiency and potential impacts of rent control on housing supply. Given the different perspectives, there is little prospect of achieving consensus.

Opponents of rent control often point to the "viability gap" (the fact that for new rental housing market rents are less than the total costs for utilities, taxes, operating expenses, and debt service) as the smoking gun which proves that rent control destroys the incentive to invest. The lack of new rental investment by corporations and low vacancy rates in major markets, especially in southern Ontario, are also cited as further proof of the effects of rent control.

On the other hand, proponents of rent control can show examples of markets which are in balance, in spite of rent review (such as Montreal, Quebec and London, Ontario) and markets which are undersupplied even in the absence of control (such as Vancouver, British Columbia). Theories about the impacts of rent control on supply are not able to explain these diverse conditions. The lack of activity from corporate investors and the "viability gap" are indisputable facts, but they are not conclusive, since they affect controlled as well as uncontrolled markets.

Chapter 8 suggests that these positions and facts can be reconciled, by building on the arguments of Chapter 4.

The viability gap appeared during the early 1970's, before most provinces introduced rent review (which occurred during 1974 to 1976). The viability gap was created by increases in inflation, which led to increases in interest rates and debt service costs. In addition, higher inflation had the effect of increasing rates of capital appreciation and of improving cash flows for existing properties.

Thus, increased inflation changed the nature and timing of profits earned by rental housing investors. In the short-term, investors faced negative cash flows. In the longer-term, cash flows progressively improve and, on the eventual sale of the property, a capital gain is earned. Capital gain has become the most important component of profits and the most important incentive to invest.

This change did not suit the needs or objectives of corporate investors and resulted in reduced corporate investment or even liquidation of rental housing portfolios. On the other hand, the change suited individual investors. To varying degrees of completeness, increased investment from individuals replaced corporate investment.

Individual investors would normally prefer low (and medium) density housing forms over high density forms. (However, individuals do often invest in high density

rental housing, through purchase and leasing individual condominiums, buying partnership shares in rental buildings, and (rarely, by wealthy individuals) building or purchasing entire buildings. It has been estimated, for example, that at least $2 billion was invested in rental condominiums in the Toronto area during the late 1980's.)

In markets where the predominant form of rental housing has been high density, there is a lack of opportunity to invest in new or existing low density rental housing. In these markets, supply from individual investors has not been sufficient to fully meet demand. This condition occurs in southern Ontario and in southern British Columbia. On the other hand, in urban areas where low and medium density development predominate - such as most of Quebec province and in smaller centres of other provinces (including Ontario) - adequate volumes of rental supply have been provided by individual investors.

This does not mean that rent control has no impact - at various times and in varying places it does.

For Toronto, for example, there is general consensus that rent control has created a "dual market". Apartments which were exempt from control (until 1986) have higher rents than do units which have been subject to continuous control (even after adjusting for quality differences).

Furthermore, rent control may have reduced the incidence of affordability problems in Toronto, but only slightly. Chapter 8 shows a highly speculative estimate, based on the dual market hypothesis, that the incidence of problems in Toronto in 1986 was 3.4 percentage points lower than it would have been in the absence of rent control.

It has been argued in this paper that in most undersupplied markets, the problem is a caused by lack of opportunities for investment by individuals. To fill the shortfall may require the return of corporate investors. Very large rent increases, to improve short-term cash flows, would be permanently required. One consultant study has indicated that a 25 percent increase is needed (Clayton Research Associates. 1984). This provides very difficult choices to policy makers who wish to stimulate corporate investment in rental housing. Such a rent increase would result in very significant increases in affordability problems. In Toronto, the incidence of problems would increase by 10 percentage points. In the end, it could be that housing demand would fall far enough to eliminate the need for corporate investment before market rents were high enough to stimulate it. The alternative to rent increases would be very costly housing supply programs. Because both of these alternatives carry very high costs, stimulation of corporate investment should be a last resort, only after all other possible approaches have been tried.

Since rent control matters sometimes and since the for-profit private sector is the major source of rental housing investment in Canada, the operation of the price system must not be unduly constricted. It is possible to balance consumer protection and the profit motive.

This paper endorses a proposal which William Stanbury and John Todd have suggested for Ontario (1990b).

- Rent review provisions (which allow landlords to apply for increases in excess of the guideline rate) should be discontinued.

- Instead, the guideline rate for annual rent increases should be increased to one percentage point more than the inflation rate.

Rather than totally eliminating rent review, rent review should be allowed in one circumstance. Renovation expenditures should be eligible for cost pass-through, to encourage upgrading of substandard and obsolete housing. But, in order to avoid encouraging unnecessary renovation, the pass-through formula should be ungenerous in the short-term, but allow full cost recovery over reasonable periods.

The Stanbury-Todd approach would allow rents to adjust - gradually - to changing market circumstances and would certainly result in increases in affordability problems. But it would also give tenants protection against sudden increases in rents - much more protection than tenants in Ontario currently have.

Reform of rent review regulations alone is not enough. There is a need to identify and remove from other kinds of regulations any impediments to investment in low and medium density housing.

Chapter 9 - Policy Matters

This paper has developed scenarios for the impacts of demographic change and rising real rents on rental housing affordability problems between the years 1986 and 2001. Demographic change alone could result in a 315,000 increase in the number of renter households with affordability problems, and a shift of the affordability problems into older age groups. When a "plausible" scenario of an 11 percent increase in real rents is combined with demographic factors, the potential growth in the number of households with problems is increased to 670,000. A third factor - incomes - will also be important in determining future changes in affordability, but no attempt has been made to project changes in renters' real incomes: authors of expert studies on incomes indicate that it is impossible to give definitive opinions on future incomes. This housing study has isolated the impacts of two of the three major factors which will affect future rental housing affordability. This is useful in identifying that there is potential for a significant increase in housing affordability problems among Canada's renter population, and in signalling an urgent need to develop forward-looking housing policies.

In terms of program approaches for addressing housing affordability problems, shelter allowance programs are the most attractive, in that they are entitlement programs. Anyone who is eligible for the program and applies will receive assistance. Other program approaches which are not entitlements have a lottery aspect: not all eligible applicants will receive assistance. However, because of uncertainty about program costs, a full-scale shelter allowance program is unlikely to be introduced in the immediate future.

There are opportunities to encourage and facilitate greater investment in rental housing, through unsubsidized, supply-side initiatives. Increasing supplies would reduce pressures on rents, and contain the growth in affordability problems.

- There are municipal/provincial policies which discriminate in favour of homeownership uses of existing housing and against rental uses (such as reduced property taxes for homeowner-occupiers and restrictions on occupancy, which prevent or discourage legal conversion from single-family to multiple-household use). These should be identified and eliminated.

- Too little available land is zoned for medium density uses. There is a need to increase densities on land which is currently zoned for low density. This would create greater opportunities for investment in medium density rental housing by individual investors (and could alleviate other consequences of urban sprawl).

- Two options are suggested for eliminating the negative cash flows which have contributed to the lack of corporate investment in rental housing. They are, firstly, a tax reform which encourages finance through equity rather than through debt and, secondly, making NHA insured Index-Linked Mortgages available to investors in rental housing. While these two suggestions would be complex to implement and are by no means certain to entice corporations to return to rental housing markets, they are worthy of discussion.

- Reform of municipal/provincial policies and making insured Index-Linked Mortgages (for 100 percent of eligible costs) available to non-profit and co-operative housing groups would create opportunities for them to invest in unsubsidized rental housing, through new construction and acquisition of existing properties.

Subsidy programs to encourage corporate investment in rental housing are not recommended. Corporations are no longer the "natural suppliers" of rental housing. They had that role for only a brief period (the 1960's) and only in the largest centres. Rental housing programs of the 1970's which attempted to keep them in the market were inappropriate. The natural suppliers are individuals. Initiatives (unsubsidized) to increase the supply of private sector rental housing should concentrate on individual investors.

Because of the considerable uncertainty about future rents and supplies of rental housing, and because of the related potential for affordability problems to grow substantially during the 1990's, the costs of "demand" side housing programs (such as rent supplements and shelter allowances) are uncertain and there is a risk of ballooning program costs. There is a continuing need for subsidized non-profit and co-operative housing supply programs to ensure that there are adequate supplies of low and moderate rental housing with stable rents.

WHO LIVES IN RENTAL HOUSING?

This chapter provides a brief statistical profile of the renter population and of some key changes which occurred in the profile between 1981 and 1986. It shows the influence of lifecycle (age and family circumstances) and income on the formation of households and on choices between homeownership and rental housing. In essence this chapter shows that Canadian's choices between homeownership and rental housing are "polarized". Renters tend to have lower incomes and to be younger than homeowners. Between 1981 and 1986, the choices became more polarized. It appears that for many in the Canadian population, rental housing is a second choice to homeownership. Those who can afford to own are more frequently choosing homeownership. Between 1981 and 1986, the population under 35 years of age became less able to maintain households. Furthermore, in 1986 younger households were more likely to rent (less likely to be homeowners) than they were in 1981. On the other hand, among the older population, household formation rates increased and they became more likely to be homeowners.

This chapter provides context for a study of the future of the renter population. By illustrating relationships between housing choices versus lifecycle and income factors, it establishes a background which will be used in later chapters for understanding changes in housing affordability (Chapter 2) and projecting future demand for rental housing (Chapter 5). It will be seen in the fifth chapter that an aging population implies a continued shift of housing demand from rental to homeownership markets and a slowing in the growth of demand for rental housing.

The Lifecycle of Household Formation and Tenure Choice

During early adulthood, members of the population increasingly develop the physical, emotional, and financial wherewithal to maintain their own dwellings - to establish households. Therefore, for the youngest adult age group (15 to 24 years), the number of households is relatively small in comparison to its population. For older age groups, the ratios of households-to-population (the "headship rate") are higher. Headship artes tend to increase with age. The exception to this is that for the population aged 75 and older, the rate of household formation declines, as the ability to live independently often begins to decline at around age 75.

Younger households are most likely to live in rental housing, but with increasing age there is a greater probability of owning one's home. This change in housing tenure is due to changes in a variety of personal circumstances which make homeownership both more desirable and more feasible financially. The age group with the highest rate of homeownership is 45 to 54 years. After this age, the homeownership rate declines with age. This may also reflect changes in circumstances, including the departure of grown children, desire or need for less space and to devote less effort to home maintenance, and actual or expected changes in income due to retirement.

Tables in this chapter illustrate the relationship between various household characteristics and tenure choices. They also show that between 1981 and 1986, there have been significant changes in the rates at which households are formed and the tenure choices which are made by households. The chapter concludes by interpreting these changes and speculating on how demography will influence future housing demand.

Headship Rates

A "headship rate" indicates the extent to which the population is forming households. In order to calculate headship rates, households are assigned to age groups on the basis of the age of their "household maintainer" (the "maintainer" is usually the person who is responsible for mortgage or rent payments). Headship rates are calculated for each age group by dividing the number of households by the population of the group. Table 1-1 shows headship rates by age group for 1981 and 1986. It shows that headship rtaes increase with age. The comparison of 1981 and 1986 shows that headship rates fell for the population aged less than 35 years, but rose for all other age groups.

TABLE 1-1
POPULATION, HOUSEHOLDS, AND HEADSHIP RATES
BY AGE OF THE HOUSEHOLD MAINTAINER
1981 AND 1986

Age Group	Population		Households		Headship Rate	
	1981	1986	1981	1986	1981	1986
15-24	4658695	4178200	671715	535945	.144	.128
25-34	4216190	4527150	2037865	2124045	.483	.469
35-44	2968155	3640895	1590990	1971475	.536	.541
45-54	2498835	2545215	1371350	1412515	.549	.555
55-64	2159235	2328320	1214235	1327005	.562	.570
65-74	1477745	1650085	908805	1021305	.615	.619
75 +	883230	1047495	486570	599385	.551	.572
Total Adults	18862085	19917360	8281530	8991670	.439	.451

Source: 1981 and 1986 Census of Canada. The household counts differ from those developed by the author from Public Use Sample Tapes because they include on-reserve population and households whereas the estimates from the PUST exclude on-reserve data.

Table 1-1 also shows the effects of the "baby boom" - the large population group which was born in the two decades after the Second World War. This group was aged 15 to 34 in 1981 and 20 to 39 in 1986. As the tail end of the baby boom entered its early 20's, the size of the 15 to 24 age group fell by 10.3 percent between 1981 and 1986. On the other hand, as the leading edge reached age 35 in the early 1980's, the 35 to 44 age group expanded by 22.7 percent. The years of the "Great Depression" and Second World War saw depressed birth rates. Therefore, the population aged 45 to 54 grew by only 1.9 percent between 1981 and 1986.

The Types of Households Formed

Table 1-2 reflects the life-cycle of family formation and household types. It shows that for the youngest age group, the majority of householdls are childless. Forty percent are non-family (one individual living alone or more than one unrelated individuals sharing a dwelling) and a further 30 percent are childless couples. Between the ages of 25 to 54, the majority of households are "traditional" families (couples with children) while the percentage of childless households (non-family and childless couples) declines. After age 54, the majority of households again becomes childless.

The data in the Table also show that between 1981 and 1986, there was a strong shift in the composition of households towards non-family households. This occurred for all age groups. To lesser degrees there were also shifts towards lone parent families and couples without children. The traditional family declined during the 1981 to 1986 period. These changes are a continuation of trends which have been evident since the end of the Second World War.

TABLE 1-2
HOUSEHOLD TYPES BY AGE OF HOUSEHOLD MAINTAINER
1981 AND 1986

Age Group	Couples Without Children	Couples With Children	Lone Parent Families	Multiple Family Households	Subtotal Family Households	Non-Family Households	Total
15-24							
1981							
No.	198314	164219	37340	601	400474	270926	671400
%	29.5%	24.5%	5.6%	0.1%	59.6%	40.4%	100.0%
1986							
No.	145501	123323	38275	800	307899	230524	538423
%	27.0%	22.9%	7.1%	0.1%	57.2%	42.8%	100.0%
25-34							
1981							
No.	381726	1101788	117503	1640	1602657	410861	2013518
%	19.0%	54.7%	5.8%	0.1%	79.6%	20.4%	100.0%
1986							
No.	405685	1075781	150128	1921	1633515	480938	2114453
%	19.2%	50.9%	7.1%	0.1%	77.3%	22.7%	100.0%
35-44							
1981							
No.	111785	1140094	137150	1503	1390529	181560	1572092
%	7.1%	72.5%	8.7%	0.1%	88.5%	11.5%	100.0%
1986							
No.	163858	1335861	201899	1619	1703237	264910	1968147
%	8.3%	67.9%	10.3%	0.1%	86.5%	13.5%	100.0%
45-54							
1981							
No.	188126	880276	120022	1102	1189526	178366	1367892
%	13.8%	64.4%	8.8%	0.1%	87.0%	13.0%	100.0%

1986							
No.	212007	867663	124453	1198	1205321	191390	1396711
%	15.2%	62.1%	8.9%	0.1%	86.3%	13.7%	100.0%
55-64							
1981							
No.	403816	479375	75797	653	959641	259432	1219073
%	33.1%	39.3%	6.2%	0.1%	78.7%	21.3%	100.0%
1986							
No.	449257	491587	82313	379	1023536	296509	1320045
%	34.0%	37.2%	6.2%	0.0%	77.5%	22.5%	100.0%
65-74							
1981							
No.	381931	163830	31467	100	577328	333112	910440
%	42.0%	18.0%	3.5%	0.0%	63.4%	36.6%	100.0%
1986							
No.	416100	175000	37705	347	629152	378552	1007704
%	41.3%	17.4%	3.7%	0.0%	62.4%	37.6%	100.0%
75 and over							
1981							
No.	148816	55536	22052	50	226454	250741	477195
%	31.2%	11.6%	4.6%	0.0%	47.5%	52.5%	100.0%
1986							
No.	185848	62257	22721	233	271059	332938	603997
%	30.8%	10.3%	3.8%	0.0%	44.9%	55.1%	100.0%
All Ages							
1981							
No.	1814514	3985118	541331	5649	6346612	1884998	8231610
%	22.0%	48.4%	6.6%	0.1%	77.1%	22.9%	100.0%
1986							
No.	1978256	4131472	657494	6497	6773719	2175761	8949480
%	22.1%	46.2%	7.3%	0.1%	75.7%	24.3%	100.0%

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

Tenure Choices by Age of Household Maintainer

Between 1981 and 1986 the percentage of Canadian households which rented their homes fell slightly, from 38.0 percent to 37.6 percent. However Table 1-3 shows that for households with a household head aged less than 45 years, the percentage of households which rent increased, while for households in which the maintainer was 45 years of age or older, the percentage which rent fell.

TABLE 1-3
DISTRIBUTION OF OWNER AND RENTER HOUSEHOLDS
BY AGE OF THE HOUSEHOLD MAINTAINER
1981 AND 1986

Age Group	1981 Owner	Renter	Total	1986 Owner	Renter	Total	% Ch. '81-'86 Owner	Renter	Total
15-24									
No.	117778	553622	671400	84920	453503	538423	-27.9	-18.1	-19.8
%	17.5%	82.5%	100.0%	15.8%	84.2%	100.0%			
25-34									
No.	1051971	961547	2013518	1023411	1091042	2114453	- 2.7	+13.5	+ 5.0
%	52.2%	47.8%	100.0%	48.4%	51.6%	100.0%			
35-44									
No.	1128824	443268	1572092	1375129	593018	1968147	+21.8	+33.8	+25.2
%	71.8%	28.2%	100.0%	69.9%	30.1%	100.0%			
45-54									
No.	1036570	331322	1367892	1065860	330851	1396711	+ 2.8	- 0.1	+ 2.1
%	75.8%	24.2%	100.0%	76.3%	23.7%	100.0%			
55-64									
No.	895294	323779	1219073	991654	328391	1320045	+10.8	+ 1.4	+ 8.3
%	73.4%	26.6%	100.0%	75.1%	24.9%	100.0%			
65-74									
No.	598197	312243	910440	689449	318255	1007704	+15.3	+ 1.9	+10.7
%	65.7%	34.3%	100.0%	68.4%	31.6%	100.0%			
75 and over									
No.	274027	203168	477195	350809	253188	603997	+28.1	+24.6	+26.6
%	57.4%	42.6%	100.0%	58.1%	41.9%	100.0%			
All Ages									
No.	5102661	3128949	8231610	5581232	3368248	8949480	+ 9.4	+ 7.6	+ 8.7
%	62.0%	38.0%	100.0%	62.4%	37.6%	100.0%			

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

Tenure Choices by Type of Household

For 4 out of 5 household types, the proportion of households which own their dwellings rose during 1981 to 1986 (and conversely, the proportion renting fell). The proportion of households which owned fell only for lone parent families, as is shown in Table 1-4. Since the fastest growing household type (lone parent families) has the lowest homeownership rate and because that type's homeownership rate fell over the 1981 to 1986 period, the growth of the total homeownership rate was marginal, increasing by 0.4 percentage points.

TABLE 1-4
DISTRIBUTION OF OWNER AND RENTER HOUSEHOLDS
BY HOUSEHOLD TYPE
1981 AND 1986

Type of Household	1981 Owner	Renter	Total	1986 Owner	Renter	Total	% Ch. '81-'86 Owner	Renter	Total
Couples W/O Children									
No.	1165503	649011	1814514	1344080	634176	1978256	+15.3	- 2.3	+ 9.0
%	64.2%	35.8%	100.0%	67.9%	32.1%	100.0%			
Couples with Children									
No.	3095366	889752	3985118	3212881	918591	4131472	+ 3.8	+ 3.2	+ 3.7
%	77.7%	22.3%	100.0%	77.8%	22.3%	100.0%			
Lone Parent Families									
No.	246958	294373	541331	282617	374877	657494	+14.4	+27.3	+21.5
%	45.6%	54.4%	100.0%	43.0%	57.0%	100.0%			
Multiple Families									
No.	3343	2306	5649	3875	2622	6497	+15.9	+13.7	+15.0
%	59.2%	40.8%	100.0%	59.6%	40.4%	100.0%			
Non-Family									
No.	591491	1293507	1884998	737779	1437982	2175761	+24.7	+11.2	+15.4
%	31.4%	68.6%	100.0%	33.9%	66.1%	100.0%			
All Types									
No.	5102661	3128949	8231610	5581232	3368248	8949480	+ 9.4	+ 7.6	+ 8.7
%	62.0%	38.0%	100.0%	62.4%	37.6%	100.0%			

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

The fall in the homeownership rate for lone parent families was in part due to the fact that the number of lone parents aged 25 to 34 and 35 to 44 rose substantially. Lone parent families in these age groups have quite low homeownership rates. Among lone parent families, homeownership rates improve for older age groups, but most of the age groups over 45 years experienced relatively slow growth during 1981 to 1986.

TABLE 1-5
TENURE CHOICES BY LONE PARENT FAMILIES
1981 AND 1986

Age Group	1981 Owner	Renter	Total	1986 Owner	Renter	Total	% Ch. '81-'86 Owner	Renter	Total
15-24									
No.	2388	34952	37340	2794	35481	38275	+17.0	+ 1.5	+ 2.5
%	6.4%	93.6%	100.0%	7.3%	92.7%	100.0%			
25-34									
No.	28383	89120	117503	28281	121847	150128	- 0.4	+36.7	+27.8
%	24.2%	75.8%	100.0%	18.8%	81.2%	100.0%			
35-44									
No.	60712	76438	137150	83976	117923	201899	+38.3	+54.3	+47.2
%	44.3%	55.7%	100.0%	41.6%	58.4%	100.0%			
45-54									
No.	67386	52636	120022	70959	53494	124453	+ 5.3	+ 1.6	+ 3.7
%	56.1%	43.9%	100.0%	57.0%	43.0%	100.0%			
55-64									
No.	49226	26571	75797	51744	30569	82313	+ 5.1	+15.0	+ 8.6
%	64.9%	35.1%	100.0%	62.9%	37.1%	100.0%			
65-74									
No.	21977	9490	31467	27723	9982	37705	+26.1	+ 5.2	+19.8
%	69.8%	30.2%	100.0%	73.5%	26.5%	100.0%			
75 and over									
No.	16886	5166	22052	17140	5581	22721	+ 1.5	+ 8.0	+ 3.0
%	76.6%	23.4%	100.0%	75.4%	24.6%	100.0%			
All Ages									
No.	246958	294373	541331	282617	374877	657494	+14.4	+27.3	+21.5
%	45.6%	54.4%	100.0%	43.0%	57.0%	100.0%			

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

Tenure Choices by Region

The Atlantic Provinces have the highest homeownership rate in the country. Quebec has the lowest rate. Between 1981 and 1986, homeownership rates increased for Eastern and Central Canada, but fell for the Prairie Provinces and British Columbia.

TABLE 1-6
DISTRIBUTION OF OWNER AND RENTER HOUSEHOLDS
BY REGION
1981 AND 1986

Region	1981 Owner	1981 Renter	1981 Total	1986 Owner	1986 Renter	1986 Total	% Ch. '81-'86 Owner	% Ch. '81-'86 Renter	% Ch. '81-'86 Total
Atlantic Provinces									
No.	499311	172408	671719	540937	184158	725095	+ 8.3	+ 6.8	+ 7.9
%	74.3%	25.7%	100.0%	74.6%	25.4%	100.0%			
Quebec									
No.	1151275	1014125	2165400	1289969	1062601	2352570	+12.0	+ 4.8	+ 8.6
%	53.2%	46.8%	100.0%	54.8%	45.2%	100.0%			
Ontario									
No.	1866811	1088653	2955464	2048233	1166088	3214321	+ 9.7	+ 7.1	+ 8.8
%	63.2%	36.8%	100.0%	63.7%	36.3%	100.0%			
Manitoba & Saskatchewan									
No.	470840	209830	680670	501503	227669	729172	+ 6.5	+ 8.5	+ 7.1
%	69.2%	30.8%	100.0%	68.8%	31.2%	100.0%			
Alberta									
No.	475450	279050	754500	516146	316043	832189	+ 8.6	+13.3	+10.3
%	63.0%	37.0%	100.0%	62.0%	38.0%	100.0%			
British Columbia									
No.	632474	352383	984857	676184	398389	1074573	+ 6.9	+13.1	+ 9.1
%	64.2%	35.8%	100.0%	62.9%	37.1%	100.0%			
Canada (1)									
No.	5102661	3128949	8231610	5581232	3368248	8949480	+ 9.4	+ 7.6	+ 8.7
%	62.0%	38.0%	100.0%	62.4%	37.6%	100.0%			

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

Note: (1) Canada total includes the Yukon and Northwest Territories. Small sample sizes prevent the development of reliable estimates for the Territories.

Tenure Choices by Level of Income

Table 1-7 shows that tenure choices rates are very much related to income. Those with the lowest incomes are most likely to rent. For the lowest income groups (under $12,000 in 1985 constant dollars), the proportions which rent rose between 1981 and 1986; for higher income groups there was a shift towards homeownership. The data also show that the income profile of renters worsened during the 1981 to 1986 period. Between 1981 and 1986, the number of low income renter households (incomes under $12,000 per year in 1985 constant dollars) rose by 22.2 percent while the number in the middle range ($12,000 to $27,999) rose by 7.1 percent, and the number in the higher ranges ($20,000 and over) fell by -2.7 percent.

TABLE 1-7
DISTRIBUTION OF OWNER AND RENTER HOUSEHOLDS
INCOME RANGES IN 1985 CONSTANT DOLLARS

Income	Owners			Renters			Both Tenures		
Range	1980	1985	Change	1980	1985	Change	1980	1985	Change
nil									
No.	25600	30591	+19.5%	30539	43905	+43.8%	56139	74496	+32.7%
% (1)	45.6%	41.1%		54.4%	58.9%		100.0%	100.0%	
$1-7999									
No.	279460	244879	-12.4%	503208	516657	+ 2.7%	782668	761536	- 2.7%
% (1)	35.7%	32.2%		64.3%	67.8%		100.0%	100.0%	
$8000-11999									
No.	212099	300219	+41.5%	317823	480122	+51.1%	529922	780341	+47.3%
% (1)	40.0%	38.5%		60.0%	61.5%		100.0%	100.0%	
$12000-19999									
No.	597916	701960	+17.4%	597335	653073	+ 9.3%	1195251	1355033	+13.4%
% (1)	50.0%	51.8%		50.0%	48.2%		100.0%	100.0%	
$20000-27999									
No.	625906	701405	+12.1%	533478	558337	+ 4.7%	1159384	1259742	+ 8.7%
% (1)	54.0%	55.7%		46.0%	44.3%		100.0%	100.0%	
$28000-39999									
No.	1104599	1173780	+ 6.3%	595193	601867	+ 1.1%	1699792	1775647	+ 4.5%
% (1)	65.0%	66.1%		35.0%	33.9%		100.0%	100.0%	
$40000 and over									
No.	2257081	2428398	+ 7.6%	551373	514287	- 6.7%	2808454	2942685	+ 4.8%
% (1)	80.4%	82.5%		19.6%	17.5%		100.0%	100.0%	
All Incomes									
No.	5102661	5581232	+ 9.4%	3128949	3368248	+ 7.6%	8231610	8949480	+ 8.7%
% (1)	62.0%	62.4%		38.0%	37.6%		100.0%	100.0%	

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.
Note: (1) For each time period, the distribution of total households by tenure.

Interpretation of Changes During 1981 to 1986

During the postwar period, until 1981, Canadian headship rates rose, as John Miron demonstrated in his 1988 book. Most important in this was the rise of the non-family household. Professor Miron suggests a variety of inter-related causes for rising headship rates, including increasing real incomes (larger percentages of the population reaching income thresholds at which they can afford to buy more privacy by establishing households); expanding income support programs and the growth of private pensions and disability insurance; inventions and improvements in "home-making technology" which have made it easier to cook, clean, and maintain a home; increased support services for the elderly and disabled which enable them to live independently; and growth of the assisted housing stock which has made housing more affordable and permitted "undoubling" (for example, because there are more options avaiable, the elderly have become less likely to live with their children). Along with these environmental factors, rising headship rates are related to decisions to delay or to forego marriage and/or childbearing. Similarly, increasing separation and divorce rates and growth in the number of elderly widows contributed to household growth (Miron: 1988. pp. 272-275).

During 1981 to 1986, however, the postwar trend to rising headship rates was reversed for those under the age of 35. For these younger age groups, there was later home-leaving and more doubling-up, including returning to live with parents. What caused this? One possible explanation lies in economic change, particularly in terms of changes in employment and wages.

The ability to establish a household generally depends upon obtaining full-time employment. Therefore, it is likely that headship rates for any age group will be related to the ratio of employment-to-population. Data from the Labour Force Survey, presented in Table 1-8, show that for almost all age groups, employment-to-population ratios rose during the mid to late 1970's, peaked in 1981 and then declined during the 1981 to 1982 recession. The declines were worst for the youngest age groups. For the population under 25 years of age, the employment-to-population ratio had still not recovered to its 1981 peak by 1986; for the 25 to 34 age group, the ratio had just barely recovered to its 1981 level; for the 35 to 44 and 45 to 54 age groups, the ratio returned to the 1981 peak in 1985 and surpassed it during 1986; and for the 55 to 64 age group, the employment-to-population ratio trended downwards, with a sharp drop after 1981. These data on employment-to-population ratios appear to explain the decline in headship rates for the under-35 population and the increase for the 35 to 54 population, but not the increase in the 55 and over population. It could be that the decline in the employment-to-population ratio for the 55 to 64 population reflects increased afluence and better pensions, which may have encouraged increased early retirement and supported housing demand for the 55 and over age group. (However, Chapter 5 will consider that the decline in the employment-population ratio for the 55 to 64 age group may not be completely voluntary.)

TABLE 1-8
EMPLOYMENT-TO-POPULATION RATIOS
BY AGE GROUP, 1975 TO 1989

Year	15-16	17-19	20-24	25-34	35-44	45-54	55-64	65 plus
1975	.272	.547	.684	.695	.706	.660	.519	.105
1976	.258	.533	.682	.699	.711	.671	.512	.093
1977	.257	.525	.676	.699	.717	.670	.506	.092
1978	.262	.530	.686	.715	.728	.681	.508	.091
1979	.291	.561	.704	.727	.740	.689	.517	.089
1980	.307	.561	.708	.737	.749	.698	.515	.088
1981	.320	.556	.708	.747	.762	.708	.511	.086
1982	.284	.479	.655	.715	.742	.689	.492	.083
1983	.269	.477	.646	.711	.741	.695	.479	.079
1984	.289	.495	.663	.721	.753	.692	.473	.077
1985	.306	.510	.677	.736	.762	.707	.471	.076
1986	.337	.528	.692	.756	.775	.712	.467	.070
1987	.354	.556	.704	.765	.785	.730	.467	.070
1988	.382	.570	.717	.777	.801	.745	.474	.070
1989	.391	.583	.728	.782	.806	.754	.468	.068

Source: Statistics Canada, Labour Force Survey.

In recent years some commentators have expressed concerns that the Canadian middle class may be shrinking - that employment is becoming more polarized into high wage and low wage jobs with a reduced proportion of jobs occurring in the middle of the wage distribution. A Statistics Canada research paper (Myles et al (1988)) reviewed data on the distribution of hourly wage rates for 1981 and 1986 (for "full time equivalent jobs"), to determine whether polarization is occurring. The study did not look at whether wages were rising or falling overall, but only at the distribution of wages. The conclusion of the study was that the distribution did indeed become more polarized between 1981 and 1986. The main factor in the change was a decline in the relative wage distribution of young people (under age 35, but particularly for those aged 16 to 24). The distribution shifted to the two lowest wage categories, away from the higher and middle categories. For middle aged workers (35 to 49 years), there was a shift in the relative wage distribution to the four highest wage categories, away from the lower and lower middle categories. For older workers (50 years of age and older) there was an even more pronounced shift. Data showing the changes by age group are summarized in Table 1-9. The Table shows, for example that for workers aged 16 to 24 the share of jobs in the lowest wage category rose by 16.0 percentage points between 1981 and 1986 (because the share of jobs in this wage category rose from 16.3 percent in 1981 to 32.3 percent in 1986); correspondingly, the share of jobs in most other wage categories fell.

TABLE 1-9
CHANGES IN THE DISTRIBUTION OF JOBS BY WAGE CATEGORY
BY AGE GROUP
1981 TO 1986
(CHANGES IN PERCENTAGE POINTS)

Wage Category	16 to 24	25 to 34	35 to 49	50 and over	Total
1	+16.0	+ 1.6	+ 0.2	- 0.9	+ 2.7
2	+ 3.0	+ 0.4	- 0.6	- 1.3	- 0.2
3	- 2.1	- 0.1	- 2.0	- 3.5	- 2.0
4	- 0.5	+ 2.0	- 1.2	0.0	0.0
5	- 3.4	+ 1.0	- 0.5	- 0.7	- 0.6
6	- 3.0	+ 0.3	- 0.6	- 1.8	- 0.9
7	- 1.8	+ 2.2	+ 1.4	+ 3.0	+ 1.6
8	- 3.4	- 0.6	+ 1.0	- 0.2	- 0.2
9	- 3.1	- 2.8	+ 2.1	+ 3.7	+ 0.4
10	- 1.7	- 4.2	+ 0.2	+ 1.8	- 0.7

Source: Myles et al (1988). Tables 3 and A-1.

A second study of income distributions, Good Jobs, Bad Jobs, by the Economic Council of Canada (1990), reported that real compensation paid to Canadian workers peaked in 1977 and declined slightly a decade later. It also found that the distribution of employment earnings has become more polarized. It found that the the percentage of workers in the middle of the earnings distribution fell from 26.8 percent in 1967 to 21.5 percent in 1987, and the distribution shifted into both the high and low earning categories, as Table 1-10 shows.

TABLE 1-10
DISTRIBUTIONS OF WORKERS BY EARNINGS LEVELS,
1967 TO 1986

	Earnings Levels (1)		
	Low	Middle	High
1967	36.4%	26.8%	36.9%
1973	37.2%	23.7%	39.1%
1981	38.2%	23.4%	38.3%
1986	39.4%	21.5%	39.1%

Source: Economic Council Of Canada, 1990, Table 5.

Note: (1) Ranges defined as "low" - jobs earning up to 75 percent of the median; "middle" - earning between 75 and 125 percent of the median; and "high" - earning over 125 percent of the median.

However, when income from sources other than employment is considered, polarization of total income is less evident - other sources of incomes (most likely transfer payments) are partially offsetting the growing polarization of employment incomes.

The Council found that the polarization is pervasive, affecting all regions of the country, all age/sex groups in the population, and both service and goods-producing industries. Because of this pervasiveness, the Council concluded that fundamental and systemic changes are taking place in the economy, but that "we do not know whether the polarization, observed over a relatively short period, is merely a one-time disturbance, whether it is the beginning of a new trend that will become more significant over time, or whether it will be reversed, at least to some extent, as the baby-boom generation moves into the prime-age, and presumably, higher-wage category".

Overall, it seems most likely that the reduced rate of household formation for the population under 35 years is attributable to events in the labour market. A smaller proportion of young people held jobs in 1986 compared to 1981 and among those who held jobs, their hourly wages were relatively lower. This reduced the percentage of the youth population who were economically able to establish and maintain their own dwellings. The decrease in the homeownership rate for the under 35 population is explainable in the same terms. Similarly, rising headship rates and rising homeownership rates for older age groups would appear to be due to increases in their relative wages, and the relatively quick recovery of employment-to-population ratios from the 1981 to 1982 recession. Whether these labour market changes will continue or be reversed is critical to future changes in household formation and tenure choices. While employment-to-population ratios expanded to record levels during 1986 to 1989, it is not yet known if relative wages of the young have recovered. It is also very difficult to speculate on the future living standards and living arrangements for the population cohort which was less than 35 years old in 1986.

Implications for Future Housing Demand

By the year 2001, the age profile of the population will become older, particularly as the baby boom will have reached the 35 to 54 age range. Given what has been seen above concerning tenure choices by age group, the implication is that the distribution of households by tenure will shift towards homeowners and away from renters.

- The age/household type matrix (Table 1-2) in combination with the age distribution of the population would also suggest that the composition of households could shift away from non-family households towards family households. However, given the changes which have occurred in headship rates and tenure choices during recent history, it is more likely non-family households will continue to increase as a percentage of the total population, and most of this growth will require rental tenure.

- The age distribution data and the age/household type matrix imply that the growth rate for lone parent families will slow during the 1990's and that lone parent families will increasingly live in owned housing.

Two studies have shown that employment incomes have become more polarized in Canada, but neither draws conclusions concerning future prospects. Incomes will certainly affect future household formation rates and tenure choices.

Chapter 5, "Potential Demand for Rental Housing" contains further discussion on future headship rates and tenure choices.

THE AFFORDABILITY OF RENTAL HOUSING

This chapter provides statistics and commentary on the affordability of rental housing. It uses a relatively simple indicator of housing affordability - shelter cost-to-income ratios. Households paying more than 30 percent of their income on shelter are assumed to have affordability problems. This is a simpler indicator of housing affordability and housing need than the sophisticated "core housing need" approach which is used by Canada Mortgage and Housing Corporation. However, limitations in the available data and the amount of time required to estimate core housing need made it necessary to use the simple measure in this study. (A general discussion of housing affordability is contained in Appendix "B": A Note on the Measurement of Housing Affordability.)

Data contained in this chapter show that the affordability of rental housing changed in two ways during the 1980's. It became less affordable, in that rents increased in real terms. Secondly, the renter population as a group suffered a reduced ability to pay for rental housing, in that the income profile of the renter population fell in real terms.

There is some concern on the part of informed observers that renters are increasingly becoming an "underclass" in Canadian society. Data from Statistics Canada's annual Household Income, Facilities and Equipment micro-databases lend credence to these concerns. A summary of the annual data on income quintiles, shown in Table 2-1, shows that over a period of two decades, the lowest income groups have increasingly consisted of renters and renters have become less likely to have incomes in the highest income groups.

TABLE 2-1
INCOME QUINTILES FOR ALL HOUSEHOLDS IN CANADA,
SHOWING PERCENTAGES IN EACH QUINTILE HAVING RENTAL TENURE
1967 TO 1988

Income Quintile	1967 % Renting	1973 % Renting	1979 % Renting	1985 % Renting	1988 % Renting
Lowest	38.0	50.1	54.1	61.0	62.7
2nd	44.5	46.4	47.1	47.3	46.9
3rd	41.4	42.5	36.1	38.1	36.7
4th	35.8	30.2	24.6	24.3	23.3
Highest	26.6	18.8	16.5	13.9	14.0
All Incomes	37.3	37.6	35.7	36.9	36.7

Source: Statistics Canada. "Household Facilities by Income and Other Characteristics". Various issues.

Table 2-2 provides perspective on the extent to which Canada's renter population has problems with housing affordability. It contrasts shelter cost-to-income ratios of homeowners and renters. Over 30 percent of renters pay more than 30 percent of their income on shelter, whereas only 12 percent of homeowners pay more

than 30 percent. This is not surprising since homeowner incomes are considerably higher than renter incomes, as was shown in Table 1-7 and 2-1.

TABLE 2-2
SHELTER COST-TO-INCOME RATIOS
BY TENURE OF HOUSEHOLD, 1986

Household Tenure	30.0% or Less%	30.1% to 50.0%	50.1% to 99.9%	100% or more	N/A (1)	Total
Homeowners						
Number	4701433	423345	145865	95092	215497	5581232
Percent	84.2%	7.6%	2.6%	1.7%	3.9%	100.0%
Renters						
Number	2168887	599460	340153	209284	50464	3368248
Percent	64.4%	17.8%	10.1%	6.2%	1.5%	100.0%
Both Tenures						
Number	6870320	1022805	486018	304376	265961	8949480
Percent	76.8%	11.4%	5.4%	3.4%	3.0%	100.0%

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Note (1): Shelter cost-to-income ratio does not apply as income is zero or negative, or rent or owner's major payment is recorded as not applicable.

Table 2-3 shows 1980 and 1985 median incomes for various "sub-groups" of the renter population, in 1985 constant dollars. The sub-groups are defined in terms of age groups and household types - these sub-groups are also referred to as "cohorts". The data show that different cohorts of renters have very different abilities-to-pay for housing. This can be expected to result in differences in the extent to which there are affordability problems among the cohorts. Later tables will show that this is the case.

Generally-speaking, incomes are highest during the prime working ages (25 to 54 years). Incomes are lower in the youngest age category (less than 25 years) and in the pre-retirement and retirement age groups (55 years and over). For single parent families, incomes follow a different pattern, increasing until the 45 to 54 age group and remaining stable for older ages.

Incomes are higher for two parent families (with or without children) than for single parent families and non-family households.

Comparison of constant dollar incomes for 1980 and 1985 shows that for most age group-household type cohorts (19 out of 28), median incomes of renters fell between 1980 and 1985, and often by large amounts. Among the 9 cohorts for which median incomes increased, the increases were generally not large. The cohorts with increasing incomes were mostly older age groups - 65 to 74 and 75 years and over. Median incomes increased for some age groups of single parent families.

These data do not necessarily show that individual households suffered actual reductions in real incomes, just that for renters as a group incomes fell in real terms. Changes in the composition of the renter population - for example, if large numbers of higher income renters moved to homeownership tenure - could also have caused the reduction in real median incomes. It will be shown later in this chapter that the reductions in median incomes contributed to a large increase in the extent to which renters have housing affordability problems.

TABLE 2-3
MEDIAN INCOMES FOR RENTER HOUSEHOLDS, 1980 AND 1985 (1),
BY AGE OF HOUSEHOLD MAINTAINER AND HOUSEHOLD TYPE (2)

	Couples Without Children			Couples With Children		
Age	1980	1985	Change	1980	1985	Change
15-24	$27,357	$23,586	- $3,771	$23,833	$19,977	- $3,856
25-34	$34,697	$33,051	- $1,646	$29,246	$27,704	- $1,542
35-44	$35,771	$36,008	+ $ 237	$32,102	$31,374	- $ 728
45-54	$34,340	$29,700	- $4,640	$36,320	$33,000	- $3,320
55-64	$27,256	$26,000	- $1,256	$33,481	$29,004	- $4,477
65-74	$17,206	$18,300	+ $1,094	$24,769	$24,336	- $ 433
75+	$14,640	$15,723	+ $1,083	$20,399	$21,252	+ $ 853

	Lone Parent Families			Non-Family Households		
Age	1980	1985	Change	1980	1985	Change
15-24	$ 7,392	$ 7,704	+ $ 312	$14,958	$13,000	- $1,958
25-34	$ 9,708	$ 9,743	+ $ 35	$21,919	$20,956	- $ 963
35-44	$15,024	$14,376	- $ 648	$22,843	$21,000	- $1,843
45-54	$18,976	$19,464	+ $ 488	$18,601	$15,295	- $3,306
55-64	$19,957	$15,887	- $4,070	$12,222	$ 9,837	- $2,385
65-74	$21,917	$19,614	- $2,303	$ 8,413	$ 9,455	+ $1,042
75+	$21,105	$17,620	- $3,485	$ 7,864	$ 8,900	+ $1,036

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

Note: (1) In 1985 constant dollars.
(2) Multiple-family households are not shown as small sample sizes prevent the development of reliable estimates.

The following pages confirm that housing affordability problems are highly correlated with incomes. Affordability problems are greatest for those cohorts which have the lowest average incomes, for lone parent families and non-family households and for households whose household maintainer is aged less than 25 years or older than 55 years. The tables show the percentages of households which pay various percentages of their incomes on "gross rent" (that is, rent paid to the landlord plus payments made for utilities and municipal services). Data are from the 1986 Census of Canada. Annual 1985 incomes are compared to June 1986 rents, which are annualized. While there may not be one definitive threshold for affordability, the data presented below are useful for comparing affordability between groups in relative terms. Households paying more than 30 percent of their income on rent are usually considered to have affordability problems. Those paying 50 percent or more can be assumed to have serious affordability problems. For households paying more than 100 percent of their income for rent, there are problems of interpretation and some studies exclude these households from estimates of housing need. Among the explanations for shelter cost-to-income ratios exceeding 100 percent are that income has changed since 1985, that funds from sources other than income are being used to pay for shelter, or that rent or income data are incorrect. A study of 1981 data, prepared by Statistics Canada staff for Canada Mortgage and Housing Corporation (Gauthier and Wright: 1988) has ruled out the possibilities that either data errors or that imputation of missing income data were responsible (in 1981) for the high rent-to-income ratios. Therefore, the following tables include households whose shelter cost-to-income ratios exceed 100 percent.

Affordability by Level of Income

Data on rent-to-income ratios (Table 2-4) indicate, as expected, a clear relationship between income level and affordability problems: renter households with the lowest incomes have the greatest incidence of high rent-to-income ratios.

TABLE 2-4
DISTRIBUTION OF RENTER HOUSEHOLDS BY INCOME RANGE
SHOWING NUMBER AND PERCENTAGE PAYING VARIOUS
GROSS RENT TO INCOME RATIOS
1986

Income Range	30.0% or Less	30.1% to 49.9%	50% to 99.9%	100% or more	N/A (1)	Total
nil (2)						
Number	0	0	0	0	43905	43905
Percent	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
$1-7999						
Number	52928	84334	180258	198628	509	516657
Percent	10.2%	16.3%	34.9%	38.4%	0.1%	100.0%
$8000-11999						
Number	152417	205018	111716	10356	615	480122
Percent	31.7%	42.7%	23.3%	2.2%	0.1%	100.0%
$12000-19999						
Number	382067	227380	41621	300	1705	653073
Percent	58.5%	34.8%	6.4%	0.0%	0.3%	100.0%
$20000-27999						
Number	490094	60436	6558	0	1249	558337
Percent	87.8%	10.8%	1.2%	0.0%	0.2%	100.0%
$28000-39999						
Number	578548	22292	0	0	1027	601867
Percent	96.1%	3.7%	0.0%	0.0%	0.2%	100.0%
$40000 and over						
Number	512833	0	0	0	1454	514287
Percent	99.7%	0.0%	0.0%	0.0%	0.3%	100.0%
All Ages						
Number	2168887	599460	340153	209284	50464	3368248
Percent	64.4%	17.8%	10.1%	6.2%	1.5%	100.0%

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Notes: (1) Rent to income ratio does not apply as income is zero or negative, or rent is recorded as not applicable.
(2) Includes negative incomes.

Affordability by Household Type

Table 2-5 classifies renter households by type. Affordability problems are greatest for the household types with the lowest incomes - lone parent families and non-family households. Incidences are much lower for other family types.

Among lone parent families, female-led households are much more likely than male-led households to have affordability problems.

TABLE 2-5
RENTER HOUSEHOLDS BY HOUSEHOLD TYPE
SHOWING NUMBER AND PERCENTAGE PAYING VARIOUS
GROSS RENT TO INCOME RATIOS, 1986

Household Type	30.0% or Less	30.1% to 50.0%	50.1% to 99.9%	100% or more	N/A (1)	Total
Couples without Children						
Number	496127	86793	26819	17566	6871	634176
Percent	78.2%	13.7%	4.2%	2.8%	1.1%	100.0%
Couples with Children						
Number	697320	123523	51988	37082	8678	918591
Percent	75.9%	13.4%	5.7%	4.0%	0.9%	100.0%
Lone Parent Families						
Male-led						
Number	23579	5964	2865	2658	658	35724
Percent	66.0%	16.7%	8.0%	7.4%	1.8%	100.0%
Female-led						
Number	136847	86148	60453	54842	863	339153
Percent	40.3%	25.4%	17.8%	16.2%	0.3%	100.0%
Both Sexes						
Number	160426	92112	63318	57500	1521	374877
Percent	42.8%	24.6%	16.9%	15.3%	0.4%	100.0%
Multiple Families						
Number	2172	299	100	51	0	2622
Percent	82.8%	11.4%	3.8%	1.9%	0.0%	100.0%
Non-Family						
Number	812842	296733	197928	97085	33394	1437982
Percent	56.5%	20.6%	13.8%	6.8%	2.3%	100.0%
All Household Types						
Number	2168887	599460	340153	209284	50464	3368248
Percent	64.4%	17.8%	10.1%	6.2%	1.5%	100.0%

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Note (1): Rent to income ratio does not apply as income is zero or negative, or rent is recorded as not applicable.

Affordability by Age

In Table 2-6, households are categorized by age. The youngest households (15 to 24 years) have the greatest incidence of problems. At this age, many are at the beginning of their careers or may still be in school. High rent-to-income ratios may reflect expectations that incomes will be higher in future, or financial support may be given by other family members or student loans. Much of the population in this age group will have recently entered the labour force, which explains why a very large percentage of this age group has rent-to-income ratios exceeding 100 percent - the 1986 Census collected their 1985 income, but June 1986 their income and ability to pay had increased significantly. Affordability problems are lowest during the prime working ages (25 to 54). For pre-retirement and older age groups (55 years and over), affordability worsens.

TABLE 2-6
GROSS RENT TO INCOME RATIOS
BY AGE OF THE HOUSEHOLD MAINTAINER, 1986

Household Head Age	30.0% or Less	30.1% to 49.9%	50% to 99.9%	100% or more	N/A (1)	Total
15-24						
Number	246752	91940	61744	45294	7773	453503
Percent	54.4%	20.3%	13.6%	10.0%	1.7%	100.0%
25-34						
Number	770142	154327	86863	65355	14355	1091042
Percent	70.6%	14.1%	8.0%	6.0%	1.3%	100.0%
35-44						
Number	406264	90801	50903	36731	8319	593018
Percent	68.5%	15.3%	8.6%	6.2%	1.4%	100.0%
45-54						
Number	222376	47767	31140	21674	7894	330851
Percent	67.2%	14.4%	9.4%	6.6%	2.4%	100.0%
55-64						
Number	200546	50755	39752	27243	10095	328391
Percent	61.1%	15.5%	12.1%	8.3%	3.1%	100.0%
65-74						
Number	184512	87506	35803	8927	1507	318255
Percent	58.0%	27.5%	11.2%	2.8%	0.5%	100.0%
75 and Over						
Number	138295	76364	33948	4060	521	253188
Percent	54.6%	30.2%	13.4%	1.6%	0.2%	100.0%
All Ages						
Number	2168887	599460	340153	209284	50464	3368248
Percent	64.4%	17.8%	10.1%	6.2%	1.5%	100.0%

Source: Estimates by the author from the 1986 Census of Canada Public Use

Sample Tape.

Note (1): Rent to income ratio does not apply as income is zero or negative, or rent is recorded as not applicable.

The pattern observed in Table 2-6 holds in general for all household types with the exception of lone parent families. As Table 2-7 shows, affordability improves with age for lone parent families.

TABLE 2-7
GROSS RENT TO INCOME RATIOS
FOR LONE PARENT FAMILIES BY AGE GROUP, RENTER HOUSEHOLDS
1986

Household Head Age	30.0% or Less	30.1% to 49.9%	50% to 99.9%	100% or more	N/A (1)	Total
15-24						
Number	6094	8910	10028	10408	41	35481
Percent	17.2%	25.1%	28.3%	29.3%	0.1%	100.0%
25-34						
Number	36905	34067	26107	24468	300	121847
Percent	30.3%	28.0%	21.4%	20.1%	0.2%	100.0%
35-44						
Number	55204	29608	17506	15098	507	117923
Percent	46.8%	25.1%	14.8%	12.8%	0.4%	100.0%
45-54						
Number	32680	10832	5036	4821	125	53494
Percent	61.1%	20.2%	9.4%	9.0%	0.2%	100.0%
55-64						
Number	18551	5635	3459	2376	548	30569
Percent	60.7%	18.4%	11.3%	7.8%	1.8%	100.0%
65-74						
Number	7188	1735	730	329	0	9982
Percent	72.0%	17.4%	7.3%	3.3%	0.0%	100.0%
75 and Over						
Number	3804	1325	452	0	0	5581
Percent	68.2%	23.7%	8.1%	0.0%	0.0%	100.0%
All Ages						
Number	160426	92112	63318	57500	1521	374877
Percent	42.8%	24.6%	16.9%	15.3%	0.4%	100.0%

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Note (1): Rent to income ratio does not apply as income is zero or negative, or rent is recorded as not applicable.

Table 2-3 showed that for lone parent families, median incomes increase until the 45 to 54 age bracket and remains stable for older age groups. Kevin McQuillan (1988: p. 39) provides an explanation for this phenomenon among female-led lone parent families: as their children age, the lone parents find it less difficult to balance the demands of parenting and employment and can take on more labour market activity. Furthermore, the children become more capable of contributing to family finances. Table 2-8 shows that the number of employment earners in female-led lone parent families increases as the parent becomes older. While the number of earners in these families is less than for other family types at all ages, the gap is closed somewhat with age. (These findings are for female-led lone parent families only. However, since 90 percent of all lone parent families who rent are led by females, the results should be applicable to the population of renting lone parent families.)

TABLE 2-8
AVERAGE NUMBER OF EMPLOYMENT INCOME EARNERS
BY AGE OF THE HOUSEHOLD HEAD, BY FAMILY TYPE, 1986

Family Type	15-24	25-34	35-44	45-54	55-64
Husband-Wife Without Children	1.82	1.86	1.77	1.55	1.14
Husband-Wife With Children	1.49	1.61	1.86	2.52	2.37
Female-Led Lone Parent Family	0.43	0.60	1.09	1.60	1.47
All Families	1.47	1.56	1.75	2.21	1.67

Source: McQuillan (1988). Table 2.3.

Affordability by Region

Table 2-9 shows rent-to-income ratios by Region. British Columbia has the greatest incidence of renter affordability problems. Ontario has the lowest incidence. The four Atlantic Provinces plus Quebec, Manitoba and Saskatchewan, and Alberta are comparable in terms of the incidence of affordability problems.

TABLE 2-9
DISTRIBUTION OF RENTER HOUSEHOLDS BY REGION, 1986
SHOWING NUMBER AND PERCENTAGE PAYING VARIOUS
GROSS RENT TO INCOME RATIOS

Region	30.0% or Less	30.1% to 49.9%	50% to 99.9%	100% or more	N/A (1)	Total
Atlantic Provinces						
Number	114401	36347	21418	10539	1453	184158
Percent	62.1%	19.7%	11.6%	5.7%	0.8%	100.0%
Quebec						
Number	678541	177491	115682	72034	18853	1062601
Percent	63.9%	16.7%	10.9%	6.8%	1.8%	100.0%
Ontario						
Number	795745	197008	94414	63909	15012	1166088
Percent	68.2%	16.9%	8.1%	5.5%	1.3%	100.0%
Manitoba & Saskatchewan						
Number	143087	41632	23570	14542	4838	227669
Percent	62.8%	18.3%	10.4%	6.4%	2.1%	100.0%
Alberta						
Number	205133	54701	30399	20029	5781	316043
Percent	64.9%	17.3%	9.6%	6.3%	1.8%	100.0%
British Columbia						
Number	220740	91101	54050	28011	4487	398389
Percent	55.4%	22.9%	13.6%	7.0%	1.1%	100.0%
Canada (2)						
Number	2168887	599460	340153	209284	50464	3368248
Percent	64.4%	17.8%	10.1%	6.2%	1.5%	100.0%

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Notes: (1) Rent to income ratio does not apply as income is zero or negative, or rent is recorded as not applicable.

(2) Canada total includes the Yukon and Northwest Territories. Small sample sizes prevent the development of reliable estimates for the Territories.

"Affordability Gaps"

Data shown so far in this chapter have focused on rent-to-income ratios, showing the proportion of renters who have affordability problems. These ratios, however, do not give a clear indication of the magnitude of the affordability problems. The size of an "affordability gap" is the difference between actual rent minus affordable rent. Table 2-10 shows the average annual affordability gaps for those households which have affordability problems, for each age group-household type of renters. It is assumed that households can afford to pay 30 percent of their incomes on rent.

It might be expected that cohorts with the lowest median incomes would have the largest average affordability gaps. Surprisingly, however, affordability gaps are quite similar for most of the cohorts. It appears that income distributions determine how many households within each cohort will have affordability problems, but not the severity of the problems.

TABLE 2-10
AVERAGE AFFORDABILITY GAPS FOR RENTER HOUSEHOLDS,
BY HOUSEHOLD TYPE AND AGE OF HOUSEHOLD MAINTAINER
1986 DOLLARS (1)

Age	Couples Without Children	Couples With Children	Lone Parent Families	Multiple Family Households	Non-Family Households	All Households
15-24	$1,940	$2,359	$2,726	**	$2,254	$2,294
25-34	$2,310	$2,394	$2,547	**	$2,201	$2,354
35-44	$2,378	$2,511	$2,534	**	$2,192	$2,407
45-54	$2,693	$2,525	$2,265	**	$2,488	$2,470
55-64	$2,621	$2,440	$2,349	**	$2,399	$2,433
65-74	$1,842	$2,353	$2,153	**	$1,782	$1,832
75+	$1,664	$1,468	$1,523	**	$1,795	$1,763
All Ages	$2,143	$2,419	$2,515	$3,661	$2,133	$2,255

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Notes: ** indicates that small sample sizes prevent the development of reliable estimates.

(1) 42,769 households with zero incomes are included in the calculation of affordability gaps, whereas in the tables on rent-to-income ratios, they are assumed not to have affordability problems (since shelter-cost-to-income ratios cannot be calculated when income equals zero). Negative income households are excluded from the calculation of affordability gaps.

Cumulating affordability gaps over the total number of (off-reserve) renter households results in an aggregate affordability gap of $2.69 billion in 1986.

Changes in Affordability in the First Half of the 1980's

A comparison of Census data for 1981 and 1986, which is shown in Table 2-11, shows that the incidence of renter housing affordability problems worsened in the first half of the 1980's. The proportion of renters paying more than 30 percent of their incomes for rent rose from 29.6 percent in 1981 to 34.1 percent in 1986.

TABLE 2-11
DISTRIBUTION OF HOUSEHOLDS BY
GROSS RENT-TO-INCOME RATIO
1981 VERSUS 1986

Year	30.0% or Less	30.1% to 49.9%	50% to 99.9%	100% or more	N/A (1)	Total
1981						
Number	2162256	506035	263712	157569	39377	3128949
Percent	69.1%	16.2%	8.4%	5.0%	1.3%	100.0%
1986						
Number	2168887	599460	340153	209284	50464	3368248
Percent	64.4%	17.8%	10.1%	6.2%	1.5%	100.0%

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Notes: (1) Rent to income ratio does not apply as income is zero or negative, or rent is recorded as not applicable.

The increase in the incidence of affordability problems was partly due to demographic factors. Between 1981 and 1986 the most rapid growth in the renter population was in lone parent families and non-family households, as Table 1-4 showed. Those two household types have the highest incidences of affordability problems, as was shown in Table 2-5. However, the increase in affordability problems was not entirely due to demographic change as the incidence of affordability problems worsened for all renter cohorts (combinations of household types and ages), as the data in Table 2-12 indicate. Two factors other than demographics are involved: the decline in the real incomes of the renter population (which has already been discussed) and, secondly, between 1981 and 1986, average rents increased in real terms and there was no growth in the stock of low rent housing. This second factor will be discussed in Chapter 3.

TABLE 2-12
THE INCIDENCE OF RENTAL HOUSING AFFORDABILITY PROBLEMS (1),
BY AGE OF HOUSEHOLD MAINTAINER AND HOUSEHOLD TYPE (2)
1981 VERSUS 1986

	Couples Without Children			Couples With Children		
Age	1981	1986	Change (3)	1981	1986	Change (3)
15-24	18.8%	24.2%	+ 5.4	27.7%	36.9%	+ 9.3
25-34	11.3%	12.3%	+ 1.0	18.7%	22.6%	+ 4.0
35-44	14.4%	15.8%	+ 1.4	18.2%	20.7%	+ 2.5
45-54	16.1%	19.4%	+ 3.3	15.1%	20.4%	+ 5.3
55-64	21.1%	24.7%	+ 3.7	14.7%	21.2%	+ 6.5
65-74	27.0%	31.5%	+ 4.5	20.0%	22.0%	+ 2.0
75+	30.6%	30.7%	+ 0.0	21.7%	26.6%	+ 4.9

	Lone Parent Families			Non-Family Households		
Age	1981	1986	Change (3)	1981	1986	Change (3)
15-24	82.0%	82.7%	+ 0.7	46.2%	50.8%	+ 4.5
25-34	65.6%	69.5%	+ 3.9	26.2%	28.9%	+ 2.7
35-44	48.4%	52.8%	+ 4.4	25.0%	32.3%	+ 7.3
45-54	36.0%	38.7%	+ 2.7	33.9%	40.9%	+ 7.0
55-64	30.8%	37.5%	+ 6.7	44.1%	47.1%	+ 3.0
65-74	26.5%	28.0%	+ 1.5	46.6%	49.6%	+ 3.1
75+	26.4%	31.8%	+ 5.5	43.9%	50.8%	+ 7.0

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

Note: (1) Households paying more than 30 percent of income for rent are assumed to have affordability problems.
(2) Multiplefamily households are not shown as small sample sizes prevent the development of reliable estimates.
(3) Change in percentage points.

The total affordability gap increased considerably between 1981 and 1986. For 1981, the total gap was $1.51 billion (which is equivalent to $2.00 billion in

1986 dollars). The 1986 gap was $2.69 billion, representing a 34.5 percent increase in real terms.

Table 2-13 examines the sources of change for both the number of renter households with affordability problems and the total affordability gap. In terms of the number of affordability problems, demographic change alone accounted for 36 percent of the increase between 1981 and 1986: household types and age groups with the greatest incidence of affordability problems grew more quickly than did cohorts with low incidences, thereby increasing the total incidence of problems. Changes in incomes and in real rents, plus interactions between the three sources of change caused the majority (64 percent) of the increase in affordability problems. In terms of affordability gaps, the most important factor was the change in renters' incomes. The method used to decompose the causes of change is described in Note 2.1.

TABLE 2-13
DECOMPOSITION OF CAUSES FOR INCREASE
IN AFFORDABILITY PROBLEMS AND
AFFORDABILITY GAPS BETWEEN
1981 AND 1986

	Number of Renter Households with Affordability Problems	Affordability Gap in Millions of 1986 Dollars
1981	927,316	$1,997 M
1986	1,148,897	$2,687 M
Change 1981-86	+ 221,581	$ 690 M
Change due to Demographics	+ 79,408	$ 191 M
Change due to Change in Incomes	+ 76,787	$ 286 M
Change due to Real Rent Increase	+ 49,765	$ 162 M
Change due to Interactions	+ 15,621	$ 52 M

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes. Details are presented in Note 2.1.

Changes in Affordability Since 1986

Data from Censuses provide the most complete picture of housing affordability. However, the most recent Census was in 1986. Data from other surveys can be used to evaluate changes since 1986. Estimates of core housing need, which were developed by Canada Mortgage and Housing Corporation (1988 and 1990a) from HIFE

(Household Income, Facilities and Equipment) databases, confirm that the incidence of renter affordability problems continued to worsen until at least 1988.

The first of the two CMHC studies compared 1982 and 1985 core housing need. It found that 26.1 percent of renters had affordability problems in 1985. This was an increase of 3.8 percentage points from the 22.3 percent of renters who had affordability problems in 1982. This study corroborates the findings in Table 2-9 that affordability worsened during the first half of the 1980's.

The second CMHC study, of 1985 and 1988 core housing need, found that in 1988 28.4 percent of renters had affordability problems. This was an increase of 2.7 percentage points from the 25.7 percent of renters who had affordability problems in 1985. (The 1988 and 1985 studies used slightly different procedures with the result that they show different estimates of affordability problems for 1985.)

Summary

There is a belief among many informed observers that the financial circumstances of Canada's renters deteriorated during the 1980's. Data presented in this chapter confirm that belief. Between 1981 and 1986, the proportion of renters paying more than 30 percent of their income for rent increased for almost all subgroups within the renter population. A second indicator of affordability, "affordability gaps", indicated that the magnitude of the total affordability problem increased significantly in real terms. Three factors contributed to the worsening of affordability.

- The income distribution of the renter population shifted down during the period. Chapter 1 (Table 1-7) showed that real renters' incomes became more concentrated in the lowest ranges in 1985 compared to 1980. In Table 2-3 it was shown that between 1980 and 1985 median incomes fell in real terms - and often by substantial amounts - for 19 out of 28 sub-groups of the renter population. For the 9 cohorts which had rising median incomes, the increases were generally not large.

- Secondly, during the period rents increased at a rate exceeding all-items inflation. In the 1981 Census, the average gross rent in Canada was $315 per month; in 1986 the average was $430 per month. The increase - 36.5 percent - exceeded the all-items inflation rate which was 31.9 percent between June 1981 and June 1986. In other words, average rents increased by 3.5 percent in "real terms" during the five year period. There is more discussion of changes in rents in the next chapter.

- Thirdly, changes in the composition of the renter population tended to increase the incidence of need. The household type with the greatest incidence of need - lone parent families - increased from 9.4 percent of renter households in 1981 to 11.1 percent in 1986. The type with the second highest incidence - non-family households - increased from 41.3 percent of all renter households in 1981 to 42.7 percent in 1986.

Other estimates developed by Canada Mortgage and Housing Corporation show that affordability continued to deteriorate until at least 1988.

These findings establish the background for this study. The objective for the next five chapters is to develop informed speculations about future affordability conditions. Future affordability will be influenced by changes in the composition of the renter population, changes in real rents, and trends in the incomes of renters. The first two factors - demographics and rents - will be reviewed and scenarios developed to illustrate their potential effects on future affordability. The third factor - future incomes - will not be addressed in this study. The issues related to future incomes are complex. Expert studies of income distributions (for example, Myles, et al, 1988) have reached no conclusions on prospects for future incomes. Therefore, while recognizing that income is a key variable, this study will not speculate on future incomes.

In this chapter it has been shown that for four out of five household types (lone parent families being the exception) the incidence of affordability problems increases with age. It has also been shown that non-family households, which are the largest and fastest growing household type among renter households, have a high incidence of affordability problems. Both of these factors are highly relevant to projections of future housing affordability problems.

- The age distribution of the population is becoming older, especially as the baby boom generation passes through early adulthood into mid-life. In future years larger percentages of the renter population will be in the pre-retirement and retirement age groups, during which the incidence of affordability problems increases. However, improvements in private pensions could mitigate this effect, whereas increases in involuntary early retirement could worsen it.

- Secondly, it is likely that non-family households will continue to be the fastest growing group of households.

The combination of these factors imply that the incidence of affordability problems could rise in future. Furthermore, there will most likely be a requirement for significant expansion of the low rent housing stock, or for expansion of government housing assistance programs, in order to meet the needs of the future population of renters. Whether increases in the low rent stock will be forthcoming will be crucial in determining the financial future of Canada's renters. The next chapter reviews the supply of rental housing and recent changes in the supply, including rent levels and changes in rents. The subsequent chapter discusses factors influencing the supply of rental housing and speculates on the future course of housing rents.

THE SUPPLY OF RENTAL HOUSING

The two previous chapters provided demand side information on the rental market - on the characteristics of households who rent and on the affordability of rental housing, as measured through rent-to-income ratios. This chapter provides information on the existing stock of occupied rental housing and on changes which have occurred in the recent past. It also develops estimates of the amounts of private sector rental housing investment which will be required during 1986 to 2001 and contrasts the requirement to past levels of investment. By establishing this background information, it becomes possible to consider (in the subsequent chapter) factors which will influence future supplies and costs of rental housing.

Vacancy Rates

Vacancy rates are the most widely used measure of the degree to which rental housing markets are balanced in terms of demand and supply. In Canada, the most often cited vacancy rate data are from Canada Mortgage and Housing Corporation's semi-annual Rental Market Survey.

Vacancy rate data for the 53 largest urban areas in Canada, from the April 1990 Rental Market Survey, are shown graphically in Figure 3-1 (and detailed data are appended to this chapter in Table 3-12). Figure 3-1 contrasts vacancy rates with the average size (in units) of privately-owned rental apartment buildings in each of the 53 urban areas. Points are indicated with either "Y" (indicating that there are provincial rent review regulations) or "N" (indicating no rent review). In the scatter-plot there is an apparent relationship between average structure size and vacancy rate. The areas with the highest structure sizes have the lowest vacancy rates. The relationship is especially apparent for communities having average structure sizes of less than 20 units. However, vacancy rates do not seem to be related to rent review status. Undersupply (and oversupply) is just as likely in those markets where rents are subject to review as in those with no rent review.

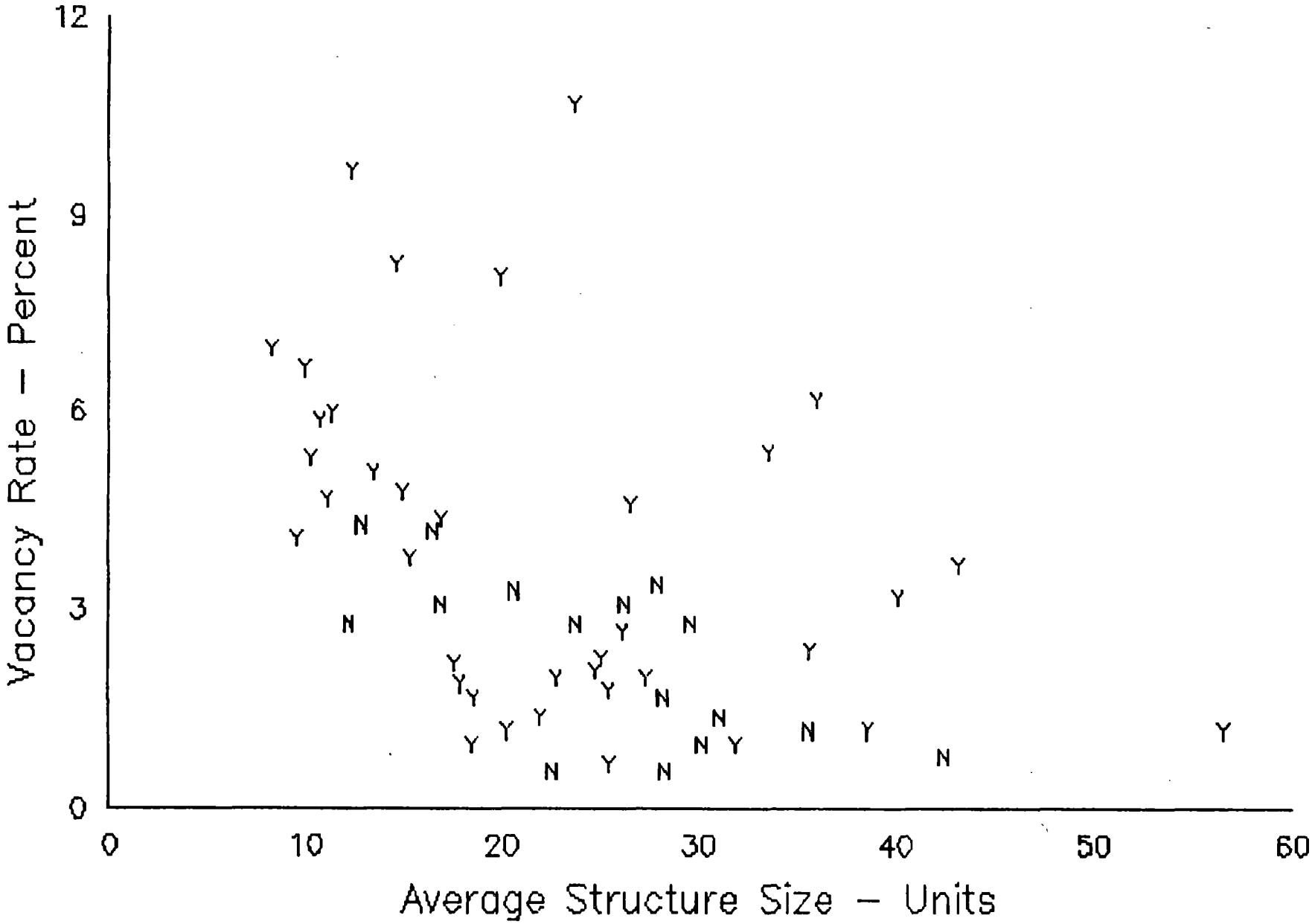
The first finding - the relationship between average structure size and vacancy rate - will be discussed further in Chapter 4 "Factors Affecting the Supply of Rental Housing". It will be argued that in areas where rental housing development is traditionally in high density forms there are physical constraints on additional investment, which usually results in undersupply (low vacancy rates). Further commentary on this and the second finding - that vacancy rates are not related to rent review status - will be given in Chapter 8 "Do Rent Controls Matter?".

Availability of Affordable Rental Housing

From time-to-time, views are expressed that the incidence of housing affordability problems is made worse than it could be by a "misallocation" of the available stock: too many rental units are occupied by higher income households who could afford to buy their own homes or else move to more expensive rental housing. Whether or not it this is true is a moot question in a free market: it is not possible to reallocate the housing stock, especially the privately owned stock, on the basis of ability-to-pay. However, to test the proposition, two tables are presented below. The first (Table 3-1) compares the distribution of actual rents paid to the distribution of rents that could be afforded. It identifies

Figure 3-1

Vacancy Rate Vs. Average Structure Size



cumulative surpluses and deficits. The second (Table 3-2) shows the rents paid by tenants compared to the rents which they could afford to pay.

Table 3-1 reveals that there is a shortage of low rent units (renting for less than $200 per month). On a cumulative basis, there is a shortage of units renting for less than $300 per month. Even if it were possible to reallocate available housing on the basis of ability-to-pay, there would still be an insufficient supply of housing renting for less than $300 per month.

TABLE 3-1
DISTRIBUTION OF RENTAL UNITS (1)
RENT RANGES FOR AVAILABLE UNITS VERSUS WHAT CAN BE AFFORDED (2)
1986

Rent	Available Units		Affordable Units		Surplus or (Deficit)	
Ranges	Number	Cumulative	Number	Cumulative	Number	Cumulative
<$200	336300	336300	559526	559526	(223226)	(223226)
$200-299	542681	878981	479507	1039033	63174	(160052)
$300-499	1666827	2545808	651368	1690401	1015459	855407
$500-699	568071	3113879	557088	2247489	10983	866390
$700-999	182441	3296320	600840	2848329	(418399)	447991
$1000+	64842	3361162	512833	3361162	(447991)	nil

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Notes: (1) Excludes households for whom rent "does not apply".
(2) Assuming that tenants can afford to pay 30 percent of income for rent.

In Table 3-2, actual rents are contrasted with "affordable" rents. Numbers shown below the diagonal (shown in bold characters) indicate numbers of households paying more rent than they can afford (according to the 30 percent rent-to-income definition of affordability). Numbers above the diagonal are for households paying less rent than they can "afford" (again, according to the 30 percent definition of affordability). The table reveals large numbers of renters paying significantly more than they can afford. For example, 559,526 tenants can afford rents of less than $200 per month, but only 20 percent of them (112,524) are paying less than $200 per month. On the other hand, many renters are paying significantly less than they can afford: as an example, 512,833 tenant households can afford to pay $1000 per month or more for rent whereas only 4.4 percent of them (22,331) have rents in that range.

TABLE 3-2
DISTRIBUTION OF RENTER HOUSEHOLDS (1)
ACTUAL RENT PAID VERSUS AFFORDABLE RENT (2)
1986

Actual Rent Ranges	Affordable Rent Ranges Under $200	$200-299	$300-499	$500-699	$700-999	$1000+	Total (1)
<$200	**112524**	90213	55760	31024	24874	21905	336300
$200-299	141725	**130208**	117865	70695	53799	28389	542681
$300-499	243229	208589	**369100**	326939	318094	200876	1666827
$500-699	44667	35962	80904	**98740**	151125	156673	568071
$700-999	9669	7288	17354	21205	**44266**	82659	182441
$1000+	7712	7247	10385	8485	8682	**22331**	64842
Total	559526	479507	651368	557088	600840	512833	3361162

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Notes: (1) Excludes households for whom rent "does not apply".
(2) Assuming that tenants can afford to pay 30 percent of income for rent.

To summarize the conclusions from Tables 3-1 and 3-2, they indicate that there is a shortage of low rent units. Even if it were possible to reallocate available rental housing based on ability-to-pay - and this is not likely to occur in a free market - the existing stock of rental housing is not sufficiently affordable for the current population.

Rents for New and Old Housing

There are good reasons to expect that rent levels will be related to building ages, with the oldest buildings having the lowest rents.

Firstly, older buildings were built during periods when income levels were lower in real terms and therefore relatively lower standards of housing would have been in demand. Newer stock would tend to be of higher quality and have higher rents.

Secondly, it seems reasonable that older buildings should rent for less than newer buildings, even if they are of comparable specifications, because older buildings would normally be more deteriorated. There is evidence to support this, in a variety of studies on "hedonic rents". For example, in a study of rents in Toronto, Nuri T. Jazairi (1983) found that each year of age reduces rent by 0.84 percent. A study by George Fallis and Lawrence B. Smith (1984), also for Toronto, found that each year of age reduces rent by 0.6 percent. Larry Ozanne (1981) found a 0.7 percent rate of decline in the United States. Based on the results from 3 studies, it appears reasonable that each year of age would reduce rent by 0.7 percent in comparison to a similar but new unit. A gradual rate of decline becomes quite substantial over prolonged periods. For example, if a unit constructed in 1986 had a rent of $500 per month, it would be expected that a unit similar in all other respects but constructed in 1951 would have a rent of $391 per month, assuming a 0.7 percent rate of decline.

Thirdly, if newer neighbourhoods have better infrastructures and amenities, which is debatable, then newer buildings would generally attract higher rents, due to their external environments.

Data on gross rents by year of construction (Table 3-3) confirm that rents levels are related to building ages, with rents lowest for older buildings and higher for buildings constructed in the most recent periods. For example, for buildings constructed in 1920 or earlier, 44.9 percent of units had rents of less than $300 per month while only 5.6 percent had rents of $700 or more per month. Buildings constructed in the most recent period had a much higher rent profile. Only 19.4 percent had rents of less than $300 per month but 14.8 percent had rents of $700 per month and over.

TABLE 3-3
RENT RANGES BY YEAR OF BUILDING CONSTRUCTION
FOR OCCUPIED UNITS, 1986

Period of Construction	Under $300	$300 to $499	$500 to $699	$700 and Over	N/A (1)	All Rent Levels
1920 or Before						
Number	116248	98938	27155	14558	2183	259082
%	44.9%	38.2%	10.5%	5.6%	0.8%	100.0%
1921 - 1945						
Number	142753	168221	46649	24362	2400	384385
%	37.1%	43.8%	12.1%	6.3%	0.6%	100.0%
1946 - 1960						
Number	184054	325014	76230	39359	527	625184
%	29.4%	52.0%	12.2%	6.3%	0.1%	100.0%
1961 - 1970						
Number	160682	449009	121752	42726	927	775096
%	20.7%	57.9%	15.7%	5.5%	0.1%	100.0%
1971 - 1975						
Number	121544	297372	102987	36132	400	558435
%	21.8%	53.3%	18.4%	6.5%	0.1%	100.0%
1976 - 1980						
Number	90454	202900	103929	41812	249	439344
%	20.6%	46.2%	23.7%	9.5%	0.1%	100.0%
1981 - 1986 (2)						
Number	63246	125373	89369	48334	400	326722
%	19.4%	38.4%	27.4%	14.8%	0.1%	100.0%
All Periods						
Number	878981	1666827	568071	247283	7086	3368248
%	26.1%	49.5%	16.9%	7.3%	0.2%	100.0%

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape. Rents shown are "gross rents" and include extra payments

made by the tenant in addition to rents paid to the landlord.

Notes: (1) Units for which rent "does not apply" (farm dwelling).
(2) For 1986, includes first five months only.

The relationship between building age and rent levels is not perfect. For example, a relatively high proportion (one-fifth) of rental units constructed in the most recent period had rents of less than $300 per month, which is not expected. However, when rents are shown for subsidized and unsubsidized units (Table 3-4), it becomes clear that a very large percentage of new units have high rents, unless the rents are subsidized. For example, for units constructed in 1981 or later which are not subsidized, only 13,569 out of 173,852 (7.8 percent) had rents of less than $300 per month. (A rent is "subsidized" if part of it is paid by government, an employer, or a relative.)

TABLE 3-4
RENT RANGES BY YEAR OF BUILDING CONSTRUCTION
FOR OCCUPIED UNITS, 1986
CASH RENTS (1)

Period of Construction	$0 or Unknown	Under $300	$300 to $499	$500 to $699	$700 and Over	N/A (2)	All Rent Levels
1940 or Before							
Subsidized	22227	33138	5576	1574	225*	0	62740
Unsubsidized	0	328566	188355	43643	16331*	0	576895
N/A (2)	0	0	0	0	0	13831	13831
1941 - 1950							
Subsidized	8875*	13143	3001	569	0	0	25588
Unsubsidized	0	90838	108468	19106	4793*	0	223205
N/A (2)	0	0	0	0	0	7018	7018
1951 - 1960							
Subsidized	7647*	22976	7936	1586	0	0	40145
Unsubsidized	0	144712	179799	30671	6949*	0	362131
N/A (2)	0	0	0	0	0	5328	5328
1961 - 1970							
Subsidized	10028	66823	17763	1054	0	0	95668
Unsubsidized	0	152951	459574	106120	21642	0	740287
N/A (2)	0	0	0	0	0	11180	11180
1971 - 1980							
Subsidized	18996	119350	24887	3224	672	0	167129
Unsubsidized	0	101981	413222	165376	29144	0	709723
N/A (2)	0	0	0	0	0	21870	21870
1981 and Later							
Subsidized	6826*	24849	11280	3518	745	0	47218
Unsubsidized	0	13569	90481	49453	20349	0	173852
N/A (2)	0	0	0	0	0	4033	4033

All Periods							
Subsidized	74599	280279	70443	11525	1642	0	438488
Unsubsidized	0	832617	1439899	414369	99208	0	2786093
N/A (2)	0	0	0	0	0	63260	63260

Source: Estimates by the author from the 1986 HIFE Micro Datafile.

Notes: (1) The rent data are for "cash rents" only. Since they include only rent paid and exclude payments for utilities, they differ from the data shown in Table 3-3. However, a comparison of data from the Census with the HIFE data (not shown here) indicates that cash rents in the Census and HIFE are very similar.

(2) Units for which rent "does not apply" (farm dwelling).

* indicates that estimate is based on a small sample size and should be viewed with caution.

Rent Ranges for Occupied Housing, 1981 and 1986

Given what has been seen in the two previous sections, it is to be expected that over time growth in the rental stock would be spread across all rent ranges. New construction would result in expansion of the total stock, primarily occurring in the upper rent ranges. Aging of the existing stock would result in the creation of low and moderate rent housing through a downward filtering of rents.

During 1981 to 1986, however, actual changes in the distribution of rents (expressed in 1986 constant dollars) defied this prediction. Table 3-5 shows that the total stock of low rent units (less than $300 per month) declined considerably. Growth in the moderate price range ($300 to $499 per month) offset those losses. Therefore, all of the net growth in the occupied rental stock was in rent ranges of $500 per month and over.

TABLE 3-5
CHANGES IN THE STOCK OF OCCUPIED RENTAL HOUSING,
BY RENT RANGE, 1981 TO 1986
IN 1986 CONSTANT DOLLARS

Census Period	Under $300	$300 to $499	$500 to $699	$700 and Over	N/A (1)	All Rent Levels
1981 Census Number	1151473	1395228	393218	179292	9738	3128949
1986 Census Number	878981	1666827	568071	247283	7086	3368248
Change	-272492	+271599	+174853	+67991	-2652	+239299

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes. Rents shown are "gross rents". 1981 rents are converted to 1986 constant dollars by multiplying by the change in the all-items Consumer Price Index (31.9 percent).

Notes: (1) Units for which rent "does not apply" (farm dwelling).

Increases in Real Rents, 1971 to 1990

This section reviews available information on rent increases from 1971 to 1990 and develops estimates of true rent increases.

For the 1971 to 1981 period, the Censuses indicate that average gross rents increased by 162.5 percent. Since the all-items Consumer Price Index increased by 137.5 percent it appears that average gross rent increased by 10.5 percent in real terms. However, the CPI rent component (which is for "constant quality" housing) increased by only 53.5 percent, which indicates that real rents fell by 35 percent. There are at least five factors which could have caused the very large difference in the estimates (a 10.5 percent real increase versus a 35 percent real decrease): changes in housing quality, treatment of utilities, lack of adjustment for depreciation, data collection errors, and sampling errors.

Changes in Housing Quality: The CPI rent component is for "constant quality" accommodation, whereas housing quality changed between the two Censuses. The following section shows that there were substantial losses of older rental housing during the decade. The subsequent section shows very large volumes of new investment in rental housing.

Utility Costs: Changes in utility costs are reflected in the CPI rent component only to the extent that the rents paid by tenants to landlords include utilities. On the other hand, gross rent data from the Census include additional payments which tenants make for utilities and municipal services. To assess the impact of this, a "gross rent index" has been developed, combining the CPI rent component with CPI data on utility costs. When the large increases in utility costs (especially energy costs) are incorporated, the gross rent index shows a 62.2 percent increase (versus the 53.5 percent estimated by the rent component of the CPI).

Depreciation: Research in the United States has concluded that the U.S. CPI rent component underestimates rent increases for "constant quality" housing because it fails to reflect that existing housing deteriorates and is therefore not of "constant quality". The impact of this is that rent inflation is underestimated by 0.6 to 0.7 percent annually (Ozanne: 1981). Because of conceptual similarities between the Canadian and U.S. CPI rent components it seems that this is also a problem in Canada. The consequence of this would be that the CPI underestimates real rent inflation by 6.1 to 7.2 percentage points over a ten year period. If the gross rent index is adjusted upwards by 0.7 percent per year to truly reflect "constant quality", the estimated 1971 to 1981 rent increase becomes 74 percent.

Data Collection Errors: Improved survey methodologies have no doubt improved the accuracy of data from the monthly rent survey, but it is conceivable that early versions of the survey (in the 1970's) had methodological problems which underestimated actual rent increases.

Sampling: Because the CPI is based on a sampling approach, estimates of rent increases may vary slightly from the true rates of increase.

Following the adjustments for utilities and depreciation, two noteworthy statistics emerge.

Firstly, the adjusted index shows that gross rents for "constant quality" accommodation fell by 26.7 percent in real terms, compared to the 35 percent real decline showed by the Consumer Price Index rent component. It is difficult to believe that real rents could have fallen by this much in such a short period, although Chapter 4 will argue that events affecting rental housing supply may have put some downward pressure on real rents in the 1970's. Rent controls were in existence for half of the decade and could have caused the decline in real rents. However, the adjusted rent index does not support this suggestion. It shows that real rents fell by more during the 1971 to 1976 period (-3.3 percent per year) than during the 1976 to 1981 period (-2.7 percent per year). In order to more thoroughly assess the effect of rent controls on real rents, it would be useful to separately look at changes in actual rents in the first and second half of the 1970's. Unfortunately, because rents were not concluded in the 1976 Census, it is not possible to do this.

Secondly, since actual average rents (not adjusted for quality) rose by 10.5 percent in real terms, "average" rents increased by 51 percent in relation to "constant quality" rents, implying that average "housing quality" of the rental housing stock increased by 51 percent, in just ten years. It is difficult to believe this finding, even though the the next two sections show that during 1971 to 1981 there were changes in the stock of housing which must have increased the overall quality. There were very substantial losses of older rental housing. The effect of the losses would have been to improve housing quality, but at the cost of a reduction in available options for low rent housing. The large growth in the supply of rental housing during 1971 to 1981 would also have contributed to quality improvement.

In terms of the 1981 to 1986 period, the June 1986 Census found an average gross rent for Canada of $430 per month, an increase of 36.5 percent from the 1981 Census. Since the all-items Consumer Price Index rose by 31.9 percent over the same period, rents increased by 3.5 percent in "real terms".

The Consumer Price Index rent component shows that rents increased by 34.1 percent, which yields a slightly lower estimate of real rent increases (1.8 percent). However, after adjustment for utilities and depreciation the estimates increase in real rents is revised to 5.5 percent, which is in the same range as the results found in the Census data (3.5 percent). The increase in real rents between 1981 to 1986 was due mainly to increases in market rents for "constant quality" housing: from data in the next two sections, it appears that upgrading of quality was not a significant factor in rent increases during 1981 to 1986. Firstly, there was a relatively low rate of attrition of older rental housing during 1981 to 1986. In addition, there was a slow rate of growth in the total rental stock during this period.

For the period since the 1986 Census, the adjusted gross rent index indicates that real rents declined fractionally between mid-1986 and the end of 1987, largely because of the oil price decline of 1986. Since the end of 1987, adjusted gross rents have continued to increase in real terms, at a rate of 0.6 percent per year. Because the estimates are relatively small in real terms and are based on a sample, it is not possible to draw absolutely certain conclusions that rents have increased in real terms since 1986, but the indication is that they have more

likely increased than decreased. Figure 3-2 presents the index (it is seasonally-adjusted). The development of the gross rent index is further described in Note 3.1

Changes in the Stock of Existing Housing, 1971 to 1986

A number of attempts have been made to estimate the effects of demolitions, conversions, and abandonments on the Canadian housing stock. In general terms, the method used has been to compare stocks of housing at various periods (especially at Census dates) and then examine the changes in relation to known flows (usually completions minus demolitions). The unexplained residual would be attributed to conversions, abandonments, or other events. Most researchers have concluded that it is impossible to develop reliable estimates of these effects. For example, Vischer Skaburskis Planners (1979: p. 16.) concluded that "the size of error in Census demolitions statistics precludes the use of the reconciliation method to assess net stock changes".

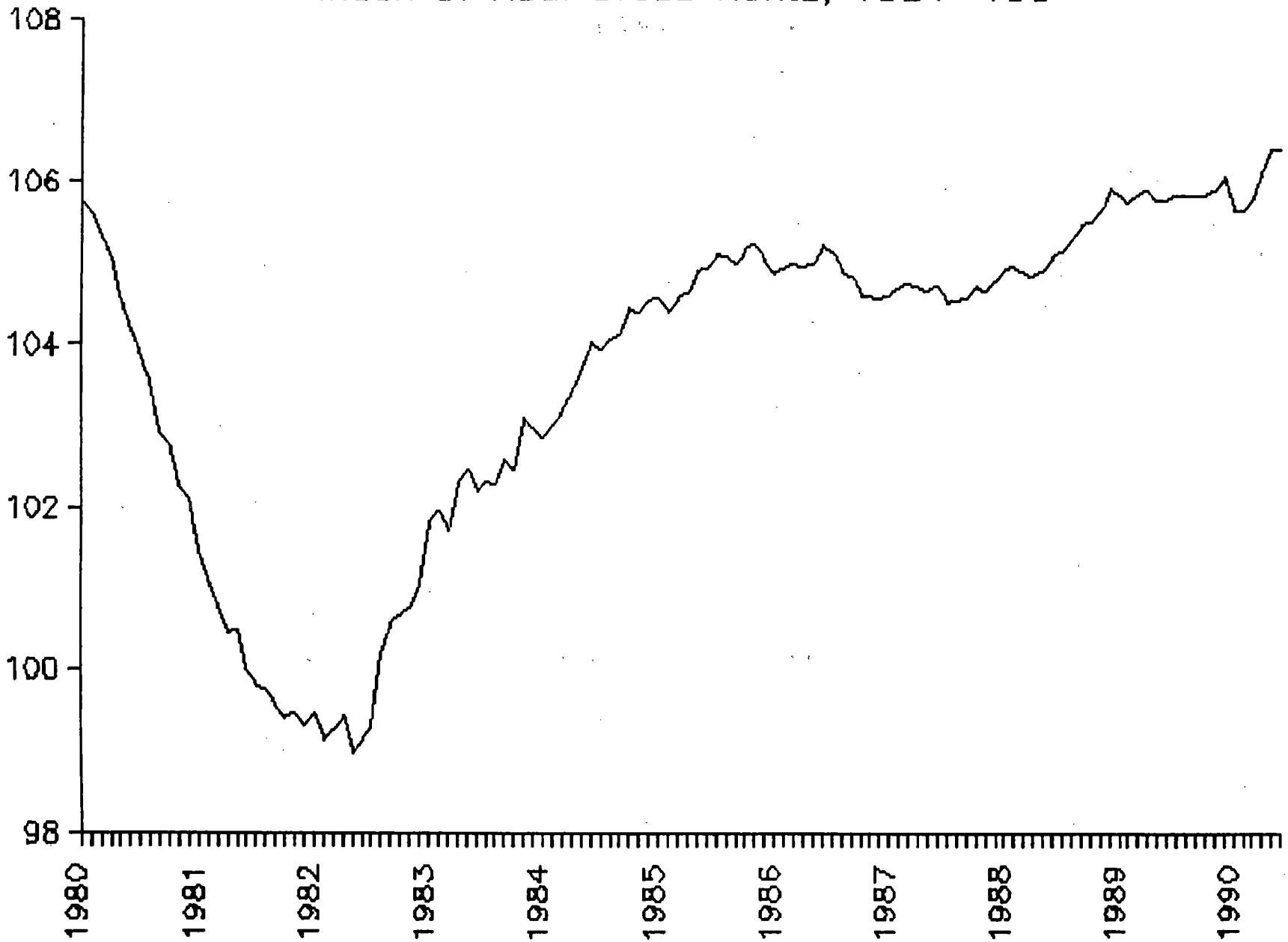
In the course of this study, an attempt was made to use a residual approach. It was concluded that it is impossible to generate meaningful estimates of residual flows. There is difficulty in estimating housing completions. The "flow" data on housing completions from Canada Mortgage and Housing Corporation are considerably different than is implied by "stock" data from various Censuses. For example, for the period January, 1981 to May, 1986 CMHC data indicate 825,019 completions in the ten provinces. However, the 1986 Census shows that the stock (excluding the Territories), included 939,008 units (moveable units are excluded from this figure to make it comparable to the housing completions data) that were completed during the same period. The significant difference (114,000 units) between these estimates makes it impossible to confidently interpret the residual changes in the housing stock, which are estimated as only -46,000 for 1981 to 1986.

As an alternative approach, the following table presents the housing stock by period of construction, from the 1971, 1981, and 1986 Censuses, and shows changes. The measured changes are the combined result of a variety of events. First of all, there are "data artifacts" - the spurious results of changes in definitions or measurement errors (such as inaccurate estimation of building ages). Secondly, the data are for occupied stock - increases or decreases in vacancy rates will alter the number of occupied units even though the total number of units (occupied plus unoccupied) may be unchanged. Finally, any real changes in housing stock could reflect retrievable losses or gains (such as conversions to or from non-residential uses), changes in intensity (the numbers of units in existing structures) or they could be permanent (demolitions).

These data indicate that during 1971 to 1981 there was a very large measured loss of pre-1961 housing units: 481,000 units of this stock (11.3 percent) disappeared from the statistics. Losses were especially high for buildings completed before 1921: one-quarter of the pre-1921 housing stock disappeared. While errors in estimating building ages or changes in vacancy rates could explain some of the reductions, it is most likely that there was very substantial loss of older housing stock during the 1970's. On a regional basis, attrition rates, generally-speaking, increased from east to west. This could reflect that in the pre-1921 and pre-Second World War periods the western provinces were at relatively early stages of economic development and the housing constructed during these periods may have been of lower quality and less durable compared to houses of similar age built in the "older" provinces. Post-Second World war economic

Figure 3–2

Index of Real Gross Rents, 1981=100



development in the western provinces would have created conditions favouring the replacement of older housing by higher quality housing. Furthermore, the shift of population from rural to urban areas may have resulted in abandonments of housing in rural areas of all provinces, but especially in the prairie provinces. There was a high rate of attrition of pre-1921 housing even in the most urbanized province (Ontario). During the 1970's, real estate inflation may have encouraged replacement of low value older structures with higher density, higher value new construction.

Between 1971 and 1981, the greatest loss rate was for rental housing (16.2 percent of the pre-1961 stock, 25,600 per year) but there were also sizeable losses of older owned housing (8.4 percent, 22,500 per year).

For the 1981 to 1986 period, the rate of attrition of pre-1961 units was reduced to 187,000 pre-1961 units (roughly 37,500 per year versus 48,000 per year during 1971 to 1981). The attrition rate for rental housing fell to 11,500 per year (versus 25,600 in the 1970's) but rose slightly for owned housing to 26,000 (compared to 22,500 in the 1970's). This overall reduction may reflect new government policies (housing rehabilitation programs), a softening of real estate values which discouraged demolition and replacement, increased consumer interest in heritage properties (especially in desirable locations), and the fact that the very substantial loss rates of the 1970's must have eliminated most of the worst housing. The fact that the loss rate was slightly lower for rented housing than for owned housing could indicate some net conversion (homeowner to rental), but it is impossible to draw firm conclusions from the available data.

For post-1960 structures, the data in Table 3-6 indicate relatively small net increases in the total stock. For rental housing, losses in the 1961 to 1970 stock roughly offset gains in the 1971 to 1980 stock. The changes in the post-1960 housing stock could be data artifacts (due to errors in estimating building ages or to changes in vacancy rates). On the other hand, it is possible that conversion activity increased the number of units.

TABLE 3-6
STOCKS OF OCCUPIED HOUSING BY PERIOD OF CONSTRUCTION
FOR 1971, 1981, AND 1986
SHOWING NET INCREASES OR LOSSES

Period of Construction	Owned Units	Rented Units	Total Units
1920 or Before			
At 1971 Census	727151	469557	1196708
At 1981 Census	606259	274962	881221
At 1986 Census	567002	259082	826084
Change 1971-81	- 120892	- 194595	- 315487
1981-86	- 39257	- 15880	- 55137
1971-86	- 160149	- 210475	- 370624

1921 to 1945			
At 1971 Census	656603	439541	1096144
At 1981 Census	632521	419368	1051889
At 1986 Census	607345	384385	991730
Change 1971-81	- 24082	- 20173	- 44255
1981-86	- 25176	- 34983	- 60159
1971-86	- 49258	- 55156	- 104414
1946 to 1960			
At 1971 Census	1296783	673064	1969847
At 1981 Census	1216923	631606	1848529
At 1986 Census	1151438	625184	1776622
Change 1971-81	- 79860	- 41458	- 121318
1981-86	- 65485	- 6422	- 71907
1971-86	- 145345	- 47880	- 193225
1961 to 1970			
At 1971 Census	930789	793481	1724270
At 1981 Census	962560	817775	1780335
At 1986 Census	966588	775096	1741684
Change 1971-81	+ 31771	+ 24294	+ 56065
1981-86	+ 4028	- 42679	- 38651
1971-86	+ 35799	- 18385	+ 17414
1971 to 1980 (1)			
At 1981 Census	1617022	945828	2562850
At 1986 Census	1657492	997779	2655271
Change 1981-86	+ 40470	+ 51951	+ 92421

Source: Estimates by the author from the 1971, 1981, and 1986 Census of Canada Public Use Sample Tapes.

Notes: (1) 1981 Census data showed 2,669,636 units, which included five months of 1981. 1981 Census data were reduced on pro rata basis (multiplied by 0.96).

Growth in the Stock of Rental Housing

Between 1971 and 1981 the stock of occupied rental housing expanded by approximately 750,000, an average increase of 75,000 units per year. On the other hand, between 1981 and 1986 the occupied rental stock grew at a much slower rate, by 240,000 units, averaging 48,000 per year.

TABLE 3-7
GROWTH IN THE STOCK OF OCCUPIED RENTAL HOUSING
1971 TO 1986

	Units	Units per Year
1971 Occupied Stock of Rental Housing	2,380,500	
1976 Occupied Stock of Rental Housing	2,716,700	
Change 1971 to 1976	+ 336,200	+ 67,240
1981 Occupied Stock of Rental Housing	3,128,949	
Change 1976 to 1981	+ 412,249	+ 82,450
1986 Occupied Stock of Rental Housing	3,368,248	
Change 1981 to 1986	+ 239,299	+ 47,860

Source: Estimates by the author from the 1971, 1981, and 1986 Census of Canada Public Use Sample Tapes.

Considering that there were high rates of attrition of older (pre-1961) housing during 1971 to 1986, it is interesting to look at gross additions to the stock of occupied rental housing (that is, to estimate the number of additional units which must have been added to the stock to replace lost housing). Since roughly 250,000 older rental units were lost during 1971 to 1981, the gross increase during the period was 1,000,000 units, or 100,000 per year. Between 1981 and 1986, losses of older units amounted to 60,000, resulting in a gross supply increase of 300,000 units, or 60,000 per year. Measures of net and gross additions to supply show that there was much less investment in rental housing in the early 1980's than in the 1970's.

Subsidized Additions to the Rental Housing Stock

Between the 1971 and 1976 Censuses, federal and federal/provincial cost-shared housing programs made new commitments to 120,469 units. Since the net growth in the occupied rental housing stock was 336,200, approximately 215,000 units (43,000 units per year) of the net increase in occupied rental housing supply was not subsidized. During the 1976 to 1981 Census periods, a larger number of new subsidies were issued: 196,392 units. However, the total increase in occupied supply was much larger: 412,249 units. In total, the same amount of new rental housing was unsubsidized as in 1971 to 1976: 215,000 units. From 1981 to 1986, subsidized units accounted for a much larger proportion of the increase in supply: 136,771 new unit subsidies were committed and only 103,000 units (20,500 units per year) were not subsidized. This was less than one-half of the annual average of the 1970'S. (Details on the subsidized stock are shown in Note 3.2.)

TABLE 3-8
GROWTH IN THE NUMBER OF
FEDERAL AND FEDERAL/PROVINCIAL SUBSIDIZED
RENTAL HOUSING UNITS, BY CENSUS PERIOD (1),
VERSUS GROWTH IN TOTAL OCCUPIED RENTAL STOCK

	June 1971-May 1976	June 1976-May 1981	June 1981-May 1986
Social Housing Programs (1)	75,970	86,217	112,649
Market Housing Programs (1)	44,499	110,175	24,122
Total Housing Program Units (1)	120,469	196,392	136,771
Growth in Occupied Rental Stock	336,200	412,249	239,299
Unsubsidized Growth	215,731	215,857	102,528

Sources: Canada Mortgage and Housing Corporation administrative files and estimates by the author from Census of Canada Public Use Sample Tapes.

Notes: For all social housing programs, dates for availability are based on Interest Adjustment Dates. For market housing programs, dates are based on year of commitment. All market housing units committed prior to 1971 are included in counts for the 1971 Census; units committed during 1971 to 1975 are included in the 1976 Census counts; units committed during 1976 to 1980 are included in the 1981 Census counts; units committed during 1981 to 1985 are included in the 1986 Census counts.

(1) Excludes unilateral provincial and municipal government housing programs.

Multiple Unit Residential Building (MURB) projects are often included in counts of subsidized housing. However, the case for including or excluding these units is not clear cut. Investors in qualifying MURB properties were entitled to use a tax rule that applied to corporate investors (Principal Business Corporations) and had applied to all investors prior to the 1972 tax reform: the investors were allowed to use Capital Cost Allowances to reduce taxable income from sources other than real estate. Other investors in non-MURB properties were not treated the same as Principal Business Corporations or MURB investors. Rolling back a change in tax rules and allowing one set of investors to use the same rules as are already available to another set probably does not satisfy a definition of "subsidy". Whether one calls MURB a subsidy program seems to depend on what point one is trying to make. The point being made here is that the second half of the 1970's was a boom-time for investment in rental housing. It happens that a large share of the investment during this period had MURB status.

TABLE 3-9
MULTIPLE UNIT RESIDENTIAL BUILDINGS (MURB)
BY YEAR OF CERTIFICATION

Year	Units
1975	8,517
1976	35,219
1977	82,265
1978	80,089
1979	76,550
1980	-
1981	61,500

Source: Canada Mortgage and Housing Corporation. Program Evaluation Division. "Assessment Report: Evaluation of Federal Rental Housing Programs". July 1988. Page 31.

The fact that 344,140 MURB certificates were issued does not mean that a similar number of new rental units were created. Clayton Research Associates (1981. p. 16) has observed that the number of certificates issued is not a good indicator of the number of MURBs started, completed, or in existence in any given period. They have estimated that at the end of 1980 there were 170,000 MURB units either completed or under construction in Canada, compared to 282,640 certificates that were issued. They projected that 1981 certificates would result in an additional 25,000 units.

Anticipated Program Activity in the 1990's

In 1986, major changes were made to federal housing policy. Cost sharing agreements for social housing programs were signed with most of the provinces. It was decided that all new federally-subsidized social housing would be targetted to households in "core need" and that the federal government would not make new commitments to subsidize market rental housing. Prior to 1986, federal social housing programs were intended to create mixed income projects. While the total number of federally-subsidized units was reduced, the elimination of non-core need subsidies resulted in an increase in the number of new "core housing need" units which could be created each year, thereby increasing the rate at which housing need problems were being addressed. During 1986 to 1989, 18,000 to 20,000 subsidy unit commitments were made each year under the federal/provincial agreements. Roughly 2,000 units per year were subsidized via Rent Supplements to existing housing. Therefore, the federal/provincial programs added 16,000 to 18,000 to the supply of rental housing each year. (A small proportion of these units are, strictly speaking, ownership units.) In addition to the "core need" units, the Cooperative Housing/Index-Linked Mortgage demonstration program added an average of 3,046 units per year between 1986 and 1989.

A variety of provincial government programs (not cost-shared with the federal government) are also adding to the rental housing stock. Under the Homes Now program, which was started in 1989, the Ontario government is committed to creating 30,000 units over a five year period. The British Columbia Housing Action Plan is subsidizing 4,000 units this year. Other provinces (Alberta, Saskatchewan, and Prince Edward Island) have smaller housing programs. In total then, unilaterally funded provincial government programs are adding about 10,000

units per year to the 16,000 to 18,000 rental units funded under the cost-shared federal-provincial social housing agreements and the 3,000 units funded under the Cooperative Housing/Index-Linked Mortgage program. Depending on whether the provincial unilateral programs and the Coop/ILM program are renewed in future, the total new rental supply from government programs is anticipated to be in the range of 16,000 to 31,000 per year in the foreseeable future.

The Publicly-Subsidized Stock of Rental Housing

The inventory of federal/provincial social housing (rental tenure) as of the end of June 1990 is 367,400 units, or roughly one-tenth of the existing stock of rental housing. (There is also a small stock of social housing with homeownership tenure.) A small amount of the social housing stock (6,000) units will have its operating agreements expire by 2001, and its future after the expiry of the agreements is uncertain.

In addition, approximately 47,000 units have been funded under the Limited Dividend Program. This program provided high ratio low interest rate financing. Rents were limited through operating agreements between the owners and Canada Mortgage and Housing Corporation. A small number of these (4,244 units) have operating agreements expiring prior to the 2001 census. In addition, for 41,000 Limited Dividend program units mortgages could be paid out by the year 2000, which would release their owners from the operating agreements.

For approximately 50,000 units in social housing and Limited Dividend projects, operating agreements could terminate between the 1986 and 2001 Census. The impact on future rent levels and tenures of these units is unclear.

Tenures for New and Old Housing

Data in Table 3-10 show that for low density housing, the likelihood that a housing unit will be rented increases as the building ages. This most likely reflects that older housing is of lower quality and have lower market values (because they are built to lower standards and are more deteriorated) than newer buildings. As a result, these buildings may be more viable as rental investments than are newer, low density units.

For medium and high density housing forms, the housing stock built in the 25 years after the Second World War has a very high probability of being rental housing. The medium and high density housing built before the Second World War or after 1970 has a lower probability of being rental. This discrepancy reflects that in the 25 years after World War 2 (but especially in the 1960's) large real estate corporations came into existence and made substantial investments in purpose-built rental housing. In the pre-war period, the large firms were not major sources of new investment in rental housing, and in the post-1970 period, they became much less significant than they were in the 1960's. In those periods, relatively higher percentages of the medium and high density housing stock were purpose-built as modest ownership housing. The theme that real estate corporations were significantly involved in investment in rental housing only in the 1960's will be revisited in later chapters of this report.

TABLE 3-10
HOUSING TENURES IN 1986, BY PERIOD OF CONSTRUCTION

Housing Form	Period Of Construction 1920 or Before	1921 - 1946	1946 - 1960	1961 - 1970	1971 - 1980	1981 - 1986(1)	All Ages
Low Density Units (2)							
Rental	119073	164073	234810	152874	182856	62860	916546
Total	642027	726362	1327345	1050295	1654340	635770	6036148
% Rental	18.5%	22.6%	17.7%	14.6%	11.1%	9.9%	15.2%
Medium Density Units (3)							
Rental	134606	211122	329946	378796	496912	186388	1737770
Total	177116	254862	385471	436403	627568	230034	2111454
% Rental	76.0%	82.8%	85.6%	86.8%	79.2%	81.0%	82.3%
High Density Units (4)							
Rental	5363	9098	60368	243406	317931	77434	713600
Total	6789	10307	63697	254939	373054	92225	801011
% Rental	79.0%	88.3%	94.8%	95.5%	85.2%	84.0%	89.1%
Total Units (5)							
Rental	259082	384385	625184	775096	997779	326722	3368248
Total	826084	991730	1776622	1741684	2655271	958089	8949480
% Rental	31.4%	38.8%	35.2%	44.5%	37.6%	34.1%	37.6%

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape

Notes:
(1) Includes first five months of 1986.
(2) Low density includes single detached, single attached, semi-detached, apartment or flat in a detached duplex, and moveable units.
(3) Medium density includes apartment, 4 or less stories and row.
(4) High density includes apartment, 5 or more stories.
(5) Total units include 867 units for which structural type is not applicable.

As is noted above, for low density structural types the proportion of units which are rented increases with age. If this is caused by conversions of aging dwellings, then it is possible that future tenure conversions could increase the stock of rental housing. The following table provides a speculative projection of tenures (in the year 2001) of the stock which existed in 1986. It assumes that the relationships between building age and tenures are maintained. The estimates suggest a possibility that the number of rental units in the low density stock could rise by 150,000 units between 1986 and 2001 as the result of tenure conversion of aging buildings.

TABLE 3-11
AGING OF THE EXISTING (1986) LOW DENSITY HOUSING STOCK TO 2001
SHOWING POTENTIAL NUMBERS OF RENTAL UNITS

1986 Rented Units	Total Units	Percent Rented	2001 (1) Rented Units	Total Units	Percent Rented
916546	6036148	15.2%	1070368	6036148	17.7%

Source: 1986 Census of Canada Public Use Sample Tape and estimates by the author.

Note: (1) In developing this projection, a more detailed categorization of structural types was used than is shown in Table 3-10. For each cohort of building age, it is assumed that the probability of rental tenure is the same in 2001 as in 1986. All 1986 structures are aged by 15 years. Because the building age categories in the data are for various periods, it was assumed that within each age category building ages were uniformly distributed, and buildings were aged on a pro rata basis.

It was shown earlier (in Table 3-4) that rents are lowest for older housing. Thus, any future tenure conversions of older dwellings could augment the supply of modest housing.

Needless to say, this projection is very highly speculative. It assumes that conversion will not change the total number of existing units, yet as Marion Steele (1989) has shown, most tenure conversions will alter the number of units within existing buildings. Most importantly, the projection assumes that there will be no losses due to demolition, abandonment, and conversions to non-residential uses. However, as was shown in the section on Changes in the Stock of Rental Housing, there is a high attrition rate for older dwellings (built prior to 1961). During 1981 to 1986 the attrition rate was 11,500 units per year. If maintained, this would cancel out the potential gain (10,250 units per year) from tenure conversion.

Summary

This chapter has demonstrated that, in relation to the rents that the renter population is able to pay, there is an insufficient supply of low rent housing - for units with 1986 rents of less than $300 per month, but especially for rents of less than $200 per month. It is then shown that newly-constructed units are quite unlikely to have rents in these low ranges, unless they are subsidized. The supply of low cost rental housing is generally in older buildings. All of the net growth in the supply of rental housing between 1981 and 1986 was in rent ranges of $500 per month and over (in 1986 dollars). The supply renting for less than $300 per month (also in 1986 dollars) fell by almost one-quarter in just five years.

Data on changes to the supply of housing show that the 1970's and the first half of the 1980's were distinctly different periods.

The period 1971 to 1981 can be summarized as follows.

- Investment was very strong - the stock of occupied rental housing expanded by 750,000 units. Considering that 317,000 units were subsidized, the unsubsidized rental housing stock expanded by an average of 43,000 units per year.

- At the same time, there was a large loss of rental housing in older buildings, averaging 25,600 units per year. The loss rate was highest for buildings constructed prior to 1921.

- Rents for "constant quality" housing are estimated to have declined during the decade, although it is difficult to accept the estimated decline of 26.7 percent. On the other hand, because of losses of older rental stock and new construction, the overall quality of housing was not "constant" - it improved: in consequence actual average rents increased by 10.5 percent in real terms, or 1 percent per year.

The 1981 to 1986 period is almost the exact opposite.

- Growth in the occupied stock of rental housing was much slower - 48,000 per year. More than half of this was subsidized. The private, unsubsidized stock of rental housing expanded by 20,500 per year, compared to 43,000 units per year in the 1970's.

- Losses of older rental housing occurred, but at a much slower rate (11,500 units per year) than in the 1970's (25,600 units per year). For relatively younger buildings, it is possible that there was some creation of rental housing, through conversions, although the data are far from conclusive.

- Rents increased in real terms during the first half of the 1980's, at a rate of 0.7 percent per year, but, unlike the 1970's, the increase cannot be attributed to a change in quality.

The next chapter attempts to interpret these very different periods in terms of changes in the investment environment.

This chapter provides a partial explanation for the large increase in affordability problems, which was shown in Chapter 2: rents increased in real terms and the low rent housing stock shrank in size. Another factor - deterioration of renter incomes - was discussed in Chapters 1 and 2.

Low rent housing is rarely created through new construction. Its sources are the passage of time (depreciation reduces the rents of older housing relative to new housing), conversion (older ownership dwellings are converted to the rental market), and government subsidies (through social housing and market housing programs).

The passage of time will continue to take its toll on existing housing, which could reduce real rents of the existing stock. However, it will be argued in the next chapter that rents are more likely to increase in real terms during the 1990's, as a result of changed fundamentals on the supply side.

As low density housing ages, its likelihood of being rented increases. This suggests the possibility that conversion of existing low density housing from homeownership to rental tenure may be a future source of non-new supply. However,

should attrition of the rental housing stock continue at the rates seen during 1981 to 1986, any gains from tenure conversions would be fully offset.

Because federal/provincial housing budgets are being targetted to households in "core housing need", governments are not adding to the supply of rental housing at the same rate as they did during the 1970's and the first half of the 1980's.

Federal/provincial social housing programs increased the supply of rental housing by 16,000 to 18,000 units per year during 1986 to 1989. Unilateral provincial government programs are currently (in 1990) creating about 10,000 units per year, although their time horizons are limited. An Ontario government program has a target of creating 30,000 units over a 5-year horizon. A British Columbia program is subject to annual funding: the 1990 target is 4,000 units. In addition, the Cooperative Housing/Index-Linked Mortgage program added an average of 3,000 units per year during 1986 to 1989. It was originally announced as a 5-year demonstration program and it is unknown if it will be extended after 1990.

Based on current activity levels, it appears that the minimum level of new subsidized additions to the rental housing stock through federal/provincial cost-shared programs is 16,000 units per year. Depending on the futures of the unilateral provincial government programs and the federal Coop/ILM program, the maximum level appears to be 31,000 units per year. Chapter 5 will project that demographic forces alone will result in the annual requirement for 55,000 new rental units each year between 1986 and 2001. Therefore, private investment will be called on to create between 24,000 to 39,000 units per year. The low end of this range is comparable to the first half of the 1980's, during which investment in real estate was quite low. The high end of the range is comparable to the 1970's, which was a period of very strong investment. Additional units would be required to alleviate low vacancy rates in major markets and to replace any demolished, converted, and abandoned housing . Between 1971 and 1981 the loss rate was 25,600 units per year; between 1981 and 1986 it was 11,500 per year.

If market rent levels are not sufficient to stimulate the required investment, then either rents will rise or else there will be worsening shortages of rental housing. The investment environment for rental housing will be critical in determining future living costs of Canada's renter population. The next chapter reviews factors affecting investment.

TABLE 3-12
APARTMENT VACANCY RATES, RENT REVIEW STATUS,
AND AVERAGE PROJECT SIZE (1)
IN 53 MAJOR RENTAL MARKET AREAS IN CANADA
APRIL 1986

Market Area	Vacancy Rate	Average Project Size	Rent Review?
Census Metropolitan Areas			
Calgary, Alta.	2.9%	27.9 units	No
Chicoutimi-Jonquierre, Que.	3.6%	9.5 units	Yes
Edmonton, Alta.	2.6%	26.2 units	No
Halifax, N.S.	4.1%	26.5 units	Yes
Hamilton, Ont.	.7%	38.6 units	Yes
Hull, Que.	3.9%	16.9 units	Yes
Kitchener, Ont.	1.3%	25.4 units	Yes
London, Ont.	3.2%	43.2 units	Yes
Montreal, Que.	4.6%	13.4 units	Yes
Oshawa, Ont.	1.5%	27.3 units	Yes
Ottawa, Ont.	1.9%	35.6 units	Yes
Quebec, Que.	4.3%	14.9 units	Yes
Regina, Sask.	7.6%	19.9 units	Yes
Saint John, N.B.	2.3%	12.2 units	No
St Catherines-Niagara, Ont.	1.6%	24.7 units	Yes
St John's, Nfld.	4.9%	33.5 units	Yes
Saskatoon, Sask.	10.2%	23.7 units	Yes
Sherbrooke, Que.	7.8%	14.6 units	Yes
Sudbury, Ont.	.5%	18.4 units	Yes
Thunder Bay, Ont .	1.4%	17.8 units	Yes
Toronto, Ont.	.7%	56.5 units	Yes
Trois-Rivieres, Que.	6.2%	9.9 units	Yes
Vancouver, B.C.	.9%	31.0 units	No
Victoria, B.C.	.7%	35.5 units	No
Windsor, Ont.	2.2%	26.1 units	Yes
Winnipeg, Man.	5.7%	35.9 units	Yes
Large Census Agglomerations			
Barrie, Ont.	1.8%	25.1 units	Yes
Belleville, Ont.	1.2%	18.5 units	Yes
Brantford, Ont.	.5%	31.8 units	Yes
Charlottetown, P.E.I.	5.5%	11.3 units	Yes
Chilliwack, B.C.	.1%	22.5 units	No
Cornwall, Ont.	3.3%	15.3 units	Yes
Drummondville, Que.	4.8%	10.2 units	Yes
Fredericton, N.B.	3.7%	16.5 units	No
Granby, Que.	9.2%	12.3 units	Yes
Guelph, Ont.	.2%	25.4 units	Yes
Kamploops, B.C.	2.3%	29.5 units	No
Kelowna, B.C.	.1%	28.2 units	No
Kingston, Ont.	.9%	21.9 units	Yes
Lethbridge. Alta.	2.3%	23.7 units	No

CONTINUED...

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Market Area	Vacancy Rate	Average Project Size	Rent Review?
Matsqui, B.C.	.3%	42.4 units	No
Medicine Hat, Alta.	2.6%	16.9 units	No
Moncton, N.B.	3.8%	12.8 units	No
Nanaimo, B.C.	.5%	30.1 units	No
North Bay, Ont.	1.7%	17.6 units	Yes
Peterborough, Ont.	1.5%	22.8 units	Yes
Prince George, B.C.	1.2%	28.2 units	No
Red Deer, Alta.	2.8%	20.6 units	No
St Jean-D'Iberville, Que.	5.4%	10.7 units	Yes
Sarnia, Ont.	2.7%	40.1 units	Yes
Sault Ste Marie, Ont.	.7%	20.2 units	Yes
Shawinigan, Que.	6.5%	8.2 units	Yes
Sydney-Sydney Mines, N.S.	4.2%	11.0 units	Yes

Source: Canada Mortgage and Housing Corporation April 1990 Rental Market Survey.

Note: (1) Data for vacancy rates and average structure sizes are for privately-initiated rental apartment structures containing 6 or more units.

FACTORS AFFECTING THE SUPPLY OF RENTAL HOUSING

Chapter 3 estimated that rents for "constant quality" housing declined in real terms between 1971 and 1981, by as much as 26.7 percent, although it questioned the reliability of this estimate. During that period of soft rents, there was a significant expansion of the supply of unsubsidized rental housing. During 1981 to 1986, however, there was a reversal. "Constant quality" rents increased in real terms, within the range of 3.5 to 5.5 percent, and there was little growth in the supply of unsubsidized rental housing. For a brief period during 1986 and 1987 real rents apparently declined fractionally. Since then, it seems that there was a resumption of increases in real rents, but at a slow pace. It is unknown at this time how the supply of unsubsidized rental housing has changed since the 1986 Census.

These events - that rents would fall in real terms during a period of strong demand (the 1970's) and rise during a period of weak demand (the early 1980's) - are perplexing at first glance. This chapter attempts to explain these movements in real rents by examining changes which have occurred in the investment environment. Cash flow and rate of return simulations are then used to illustrate the effects of these changes on profitability. It considers how the current environment will affect investment during the 1990's and speculates about potential future changes in real rents.

The review of investment conditions develops a theme that changes in the nature of profits from rental housing caused large real estate corporations to lose interest in rental housing, but stimulated investment from individuals. The section "Investment by Individuals" offers an explanation for a finding of Chapter 3 - that major urban areas with high average sizes of rental housing projects have the lowest vacancy rates.

The Investment Environment in the 1970's

In the United States, researchers have observed events similar to those which occurred in Canada during the 1970's. Ira S. Lowry (1981: p. 28) has produced what may be the most accepted estimates, that real rents fell by 4.7 percent. Discussion in the United States on the "lagging rent phenomenon" has reached several conclusions which are relevant to Canada. These are discussed in Anthony Downs' book Rental Housing in the 1980's (1983. pp: 32 - 38).

- Increased attractiveness of homeownership undermined the demand for rental housing, especially for the most expensive rental housing, putting downward pressure on real rents.

- Increased poverty of tenants may have prevented landlords from increasing rents.

- Because vacancies carry large costs for small scale landlords they may be conservative about increasing rents in order to minimize vacancies. They may maximize their income by reducing vacancies rather than by increasing rents.

- Fear of rent controls or actual rent controls may deter landlords from increasing rents by as much as the market would allow.

- The advantages of tax sheltering may be attracting small investors to the rental market. Since these investors are not necessarily rent maximizers, pressures for rent increases are reduced.

Most importantly, during the 1970's, there were fundamental changes in the investment environment, which must have brought about changes in rental markets in Canada and the United States. Increased inflation was the most important change, for two reasons. Firstly, the tax system is not neutral with respect to inflation. When inflation increases, real rates of return are affected as a result of specific features of the tax rules. Secondly, for most of the 1970's, interest rates did not increase to reflect higher inflation. Both of these conditions would increase profits, thereby encouraging investment and, consequently, put downward pressure on rents. These effects on the investment market for rental housing during the 1970's are discussed in a variety of sources, including Downs (1983), Jones (1983) and Steele (1989).

Prior to the inflation-era of the 1970's, returns to investors in rental housing were mainly in the form of cash flow and debt retirement. Investments in rental housing could be highly financed with debt and earn an attractive rate of return on equity through a yearly dividend (the difference between rental income minus costs, including operating costs and debt service costs) and repayment of mortgage debt, which increased the owner's equity. The cash flows would generate capital which could be invested in new projects (allowing growth) plus provide a dividend to investors. The first column of Table 4-1, which is taken from a report on a major real estate developer, Cadillac-Fairview Corporation, shows a representative rate of return on equity near the end of this era (1967). Any other income due to incentives inherent in the tax system (such as accelerated depreciation or soft cost deductibility, which are discussed later), or due to accrued capital gains, would have been "gravy" to investors, not the essential incentive to invest. Data on who owns the rental housing stock in Canada are non-existent, but, it seems that a gradual evolution in the ownership of the rental housing stock occurred between the end of the Second World War and the beginning of the 1970's. This period saw the rise of large corporate and institutional investors in the rental housing market (such as real estate firms and insurance companies). A recent research monograph on the post-Second World War evolution of the Canadian housing industry reached a similar conclusion, that "the rental apartment industry blossomed during the 1955 to 1969 period" (Clayton Research Associates and Scanada Consultants. 1990: p. 66). These investors were motivated to invest by the expectation of receiving reliable year-after-year cash flows over long periods of time. This evolution also saw the birth and growth of the large multiple unit rental housing project (high-rise apartments and row housing complexes). Government programs (such as the Limited Dividend Program) which subsidized private market rental housing supported the development of both the large investor and the large-size housing project.

TABLE 4-1
RATE OF RETURN ON A HYPOTHETICAL RENTAL APARTMENT PROJECT IN THE TORONTO AREA

	Year of Completion 1967	1972	1976
Construction Cost	12,000	16,000	25,000
20% Equity	2,400	3,200	5,000
Rental Revenue	1,920	2,400	3,360
Operating Expenses	864	1,080	1,512
Assumed Mortgage Payment Factor	7%	9.5%	12%
Debt Service Cost	672	1,216	2,400
Cash Flow	384	104	-552
Rate of Return on Initial Equity	16%	3%	- 11%

Source: Ira Gluskin, Cadillac Fairview Corporation Limited: A Corporate Background Report, Royal Commission on Corporate Concentration, 1977, Table 71.

Beginning in the late 1960's and early 1970's, the nature of returns to investors in rental housing changed radically.

Figure 4-1 shows that both inflation and mortgage rates increased in the second half of the 1960's, leaving real interest rates roughly constant. During the early 1970's, however, the rate of inflation was higher but mortgage interest rates increased only slightly until the end of the decade. As a result, real interest rates declined until the middle of the decade, and were quite low during most of the 1970's. The gradual increase in mortgage interest rates during the second half of the 1960's and all of the 1970's eroded the cash flows of rental investments, eventually resulting in expectations that new investments with high-ratio debt finance would face negative cash flows in their early years. Table 4-1 (above) illustrates this, as the first year cash flow represents only a 3 percent rate of return to equity in 1972 and a negative return (-11) percent return in 1976, compared to a return of +16 percent in 1967. After a project is built, debt service costs tend to remain constant, while inflation causes rents and operating costs to increase. Thus, the initial negative cash flows improve and turn positive as the investment matures.

Inflation, which was followed by expectations of additional future inflation, caused increases in values of real property during the 1970's. Marion Steele (1987: Table 1A) has generated a price index for existing housing (based on MLS data), which shows that Canadian house prices began a very steep rise in 1972/73 and peaked in 1981. The index is presented in Figure 4-2. House price inflation and expectations of future inflation created the prospect of earning capital gains by investing in housing. The price increases for homeownership housing spilled over onto market values for rental housing, since most of the existing housing stock is capable of being converted between homeownership and rental tenure.

Thus, the nature of returns to investors was changed. Rather than taking the form of year-to-year positive cash flows, as they had during the 1960's, profits took the form of negative cash flows in the early years offset by positive cash flows in

Figure 4-1

Inflation Versus Mortgage Interest Rates

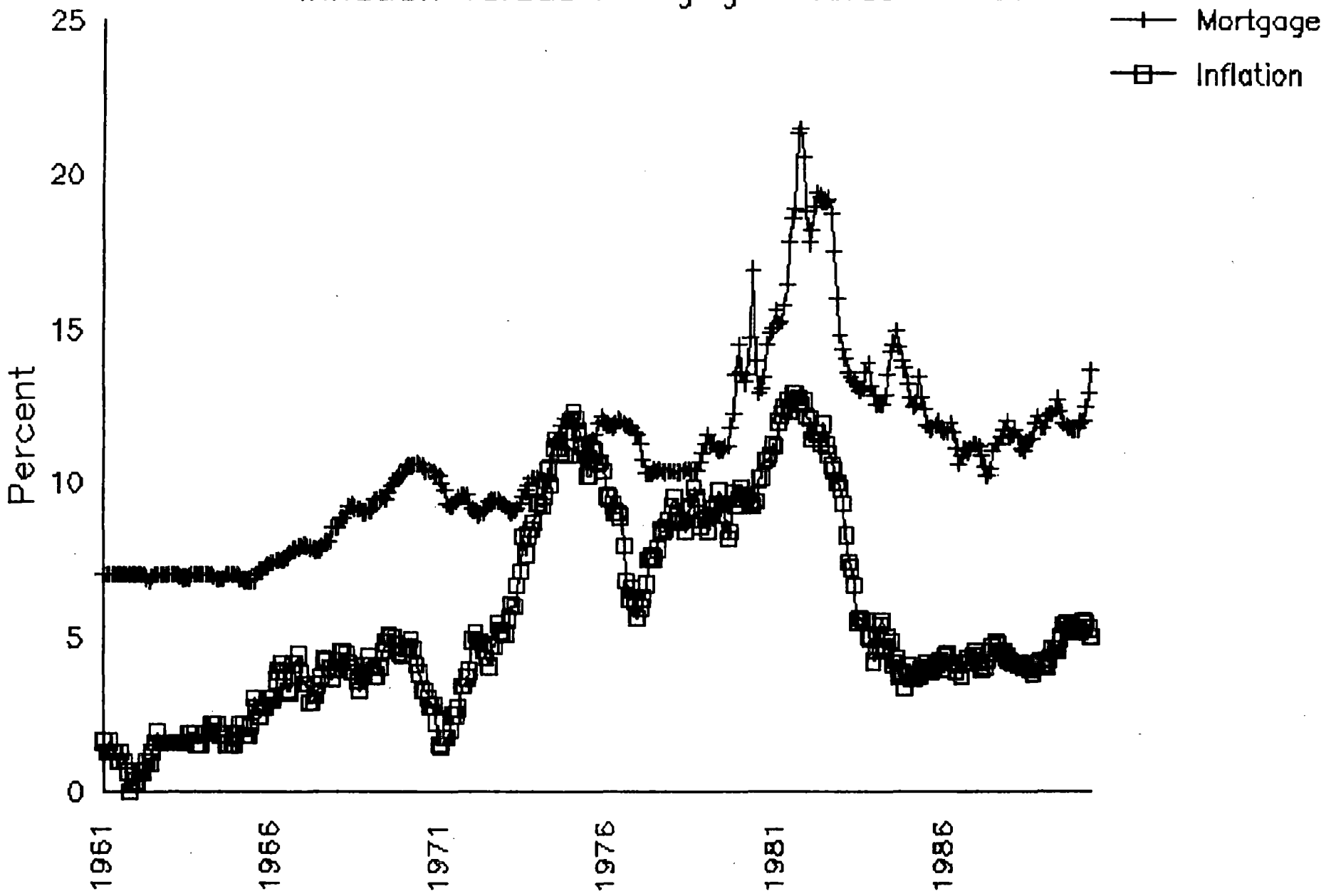
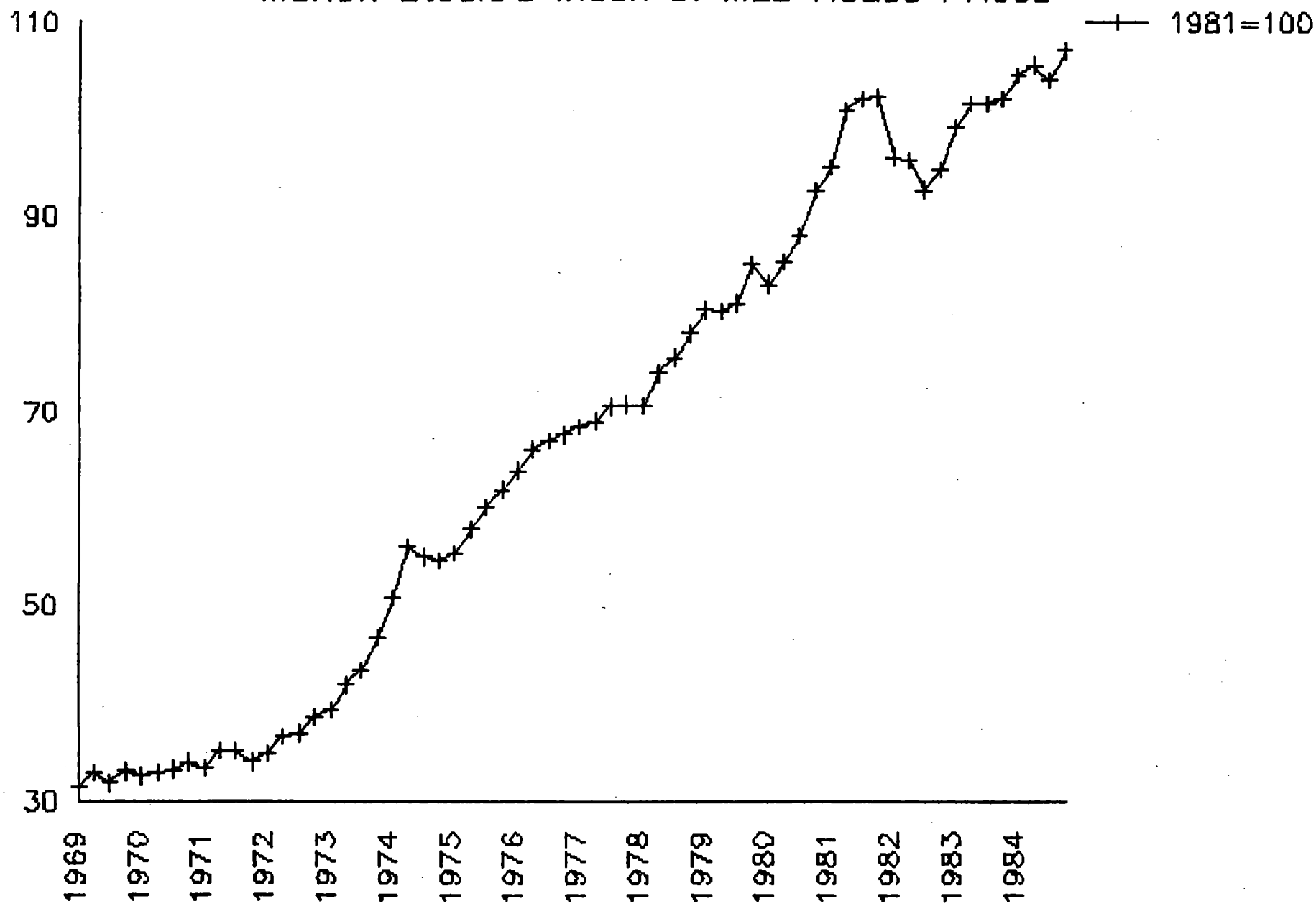


Figure 4-2

Marion Steele's Index of MLS House Prices



later years plus capital gains on the eventual sale of the investment. This in itself did not necessarily change real (after-inflation) rates of return, but it did change the timing of returns, and it meant that returns became more variable and less predictable: investment became more risky.

In fact, real after tax rates of return were most likely increased for at least part of the 1970's, for two reasons. Firstly, interest rates responded only gradually to increased inflation. Because real interest rates fell, the positive effect of inflation (increased rental revenue plus capital appreciation) was greater than the negative effect (increased debt service costs). Secondly, increased inflation interacted with the tax system in the the 1970's to alter real after tax rates of return.

Increased inflation affects both the expenses and income of a rental property: it is responsible for both the negative cash flows (to the extent that interest rates rise in response to inflation) and it causes capital gains (to the extent that capital values rise to reflect increases in replacement cost: the actual rate of capital appreciation may be more or less than the rate of inflation). The tax system was (and still is, although to a lesser degree), blind to the linkage between the inflation components in interest rates and capital gains. The inflation component in interest rates was fully deductible as a business expense but during most of the 1970's only one-half of capital gains were subject to tax. (Prior to 1972, capital gains were not taxed.) The opportunity to borrow capital and use "leverage" to increase rates of return has always been part of the attraction of rental housing. Because the two aspects of inflation are treated unequally in the tax system, the tax system increases the incentive to use leverage. Furthermore, when inflation increases, this distortion is even greater.

Real estate investments have other tax advantages. For tax purposes, capital costs can be depreciated at a rate faster than buildings actually depreciate. In the United States, the true rate of depreciation for apartment buildings has been estimated as 1.4 percent per year (De Leeuw and Ozanne. 1979). In Canada, the tax system, until 1987, allowed a 5 percent rate for Capital Cost Allowances, although the rate is now 4 percent. This "excess depreciation" can be used to reduce taxes payable on rental income, and, in some instances, on income from other sources. Although "excess depreciation" will be "recaptured" when the property is sold, the deferral of taxes has a value to the taxpayer, especially if he can defer taxes until a year when his total income is lower and his tax rate will be lower. When the inflation rate increases, as it did during the 1970's, tax deferral has greater value.

Frank Clayton (1974. p. 303) concluded, based on studies from the United States, that the benefit of excess depreciation could result in a 17 percent reduction in rents. The rent reduction occurs because in a market with free entry, the tax advantages attract investment. Increased supply reduces rents. Investment will continue to be attracted until rents are reduced sufficiently to offset the tax advantages.

"Soft costs" related to the acquisition of a rental investment are deductible immediately as business expenses. In three ways, they are even more useful than Capital Cost Allowances as tax shelters. Firstly, they are deductible immediately rather than over a period of years. Secondly, they can be used to reduce tax on income from sources other than rental income, whereas CCA cannot always be applied against other income. Thirdly, soft costs, unlike depreciation, are not fully

recaptured on sale. Because they are not included in the capital cost base of the property, when it is sold the soft costs will show up for tax purposes as a capital gain, which will not be fully taxed. Once again, increased inflation increases the value of deferring taxes.

In addition to the environmental changes discussed above (inflation, interest rates, and capital gains), there were some significant revisions to the tax code in 1972. The three changes which were of greatest importance for investment in rental housing were the following.

- Capital Cost Allowances (CCA) for rental housing could no longer be used to reduce income from sources other than rental income, except for insurance companies and firms whose "Principal Business" was "the leasing, rental, development, or sale, or any combination thereof, of real property owned by it". This created discrimination in the tax system in favour of established corporate participants in the rental housing market and against any other actual and potential investors. (Promoters of rental housing syndications have also learned to structure the financing so that CCA can be fully used by investors. Financing is "off the property" for tax purposes, so that the interest costs are deducted from sources other than rental income. Thus the CCA can be fully deducted against rental income. From this point, any reference to Principal Business Corporation is intended to include insurance companies and syndications.)

- Prior to 1972, pooling of properties could be used to avoid recapture of excess depreciation. For properties acquired in 1972 or later, pooling was eliminated for most properties so that recapture could no longer be deferred.

- Capital gains became taxable (one-half to be included in income).

Each of these provisions tended to reduce the after-tax rates of return which could be earned by investors in real estate.

The 1972 changes reduced the attractiveness of rental housing investment, which meant that higher rents were required in order to attract investment. An adjustment process began: vacancy rates fell and rents began to increase. The adjustment process was truncated by the creation of the Multiple Unit Residential Building (MURB) and by increasing real estate prices, both of which encouraged investment, and by the imposition of rent controls.

The creation of MURB in 1974, was a relaxation of the 1972 changes. Investors in MURBs were allowed to use capital cost allowances to reduce taxable income from other sources. Periods during which new buildings could qualify as MURBs were November 1974 to December 1979 and October 1980 to December 1981.

During the 1970's, the changes in inflation and interest rates, in tax rules, and in the nature of returns had some very substantial implications for investment (and the nature of investment) in rental housing.

- Firstly, the large corporate and institutional investors who became involved in the rental housing market in the 1950's and 1960's, who were motivated by its year-to-year cash flows and relatively low risk, lost interest in making additional investments and many decided to liquidate their investments. This was especially true for companies whose shares were widely-owned and were

concerned about the stability of their share prices. The early 1980's, in particular, was littered with voluntary and involuntary exits of real estate companies from the rental housing market. Having left the residential market, the corporations turned their attentions to non-residential real estate. They often cite rent control, laws which have increased tenant rights, and fears of future regulation as the reason for leaving the residential rental market. This point is discussed further in Chapter 8 "Do Rent Controls Matter?". The corporate investors were replaced by investors who were attracted to the available type of returns (tax shelters and capital gains), were not deterred by the prospects of negative cash flows, and were risk-takers. This included high income individuals, partnerships, and small privately-owned companies. These investors can be divided into two categories: passive investors/tax avoiders are mainly interested in using tax write-offs from MURBs and syndications (Capital Cost Allowances and soft cost deductibility) to shelter income from taxes. The second category is active investors who are attracted to the prospects of capital gains and long term potential for income growth combined with the low effective tax rate on rental income.

- Secondly, the 1972 changes to tax rules gave existing firms in the real estate industry (Principal Business Corporations) a competitive advantage over any potential entrants from other industries, since the potential entrants to the industry would have been unable to use depreciation to reduce taxable income from other sources. This was a barrier to entry of new investors. It tended to slow the shift (away from large corporate investors to individuals, partnerships, and small companies) which was otherwise due to occur.

- Thirdly, real after tax rates of return were increased in the rental market, especially around the middle of the decade, since interest rates did not increase in response to increased inflation. This attracted individual investors to the rental housing market. Increased investment demand increased the asset value (the price) of new and existing housing, creating expectations of further capital appreciation, resulting in more investment and an upward spiral in real estate values. The increased investment also increased the available supply of rental housing, which put downward pressure on real rents. This explanation has been plausibly offered for the 1970's "lagging rents" in both Canada and the United States. The downward pressure on rents further worsened the attractiveness of rental housing to those investors who are primarily motivated by cash flows, making them even more likely to exit the industry.

- Fourthly, while the changed investment environment deterred "the big guys" from building and holding rental assets, many firms found a second best alternative, so that they did not have to exit entirely from the industry. These firms construct buildings and, rather than retain ownership, they sell units to investors and, sometimes, retain contracts to manage the properties. This was especially the case for MURBs, but has been used in the "syndication" of non-MURBs to passive investors and the sale of condominium units to investors. The fact that MURB status was limited to buildings constructed during a fixed time interval made passive investors/tax avoiders dependent upon the development industry. The change in the role of the real estate corporations, from being developer-landlords to being developer-salesmen-property managers, might have a strategic advantage. Profits are received in a relatively short period of time, rather than over a prolonged future. As developers, their involvement is over a short period - it should be less risky than a landlord

role. However, to the extent that corporate objectives include developing and holding portfolios of income-producing properties for long-term profitability, the developer role is unattractive.

- Fifthly, the increased incentive to leverage, in a time when interest rates and inflation rates were volatile and mortgage terms were shortened, meant that investment in rental housing became more risky in the 1970's (and even more risky in the 1980's). Investors became much more vulnerable to interest rate shocks than they were in the 1960's.

- Sixthly, the increase in interest rates which deters large investors also makes it more difficult for potential first-time homebuyers to buy homes, as the increased mortgage payments may not be affordable. Many first-time buyers have overcome this by renting out part of their home and using the income to help cover mortgage costs, until their incomes increase sufficiently that the rental income is not needed. They may also be able to declare negative rental income for tax purposes so that inflation provides a tax sheltering benefit. The "tilt effect" of increased interest rates is directly responsible for discouraging investment by "the big guys", but it is also directly responsible for forcing some first-time homebuyers to supply rental housing, even if it is only temporarily rental housing.

- Finally, the shift in who invests resulted in some changes in the statistical appearance of the rental housing stock. When a large part of the motivation to invest in rental housing is the prospect of capital gains, the investors will want their assets to be as liquid as possible. Therefore, housing forms which could be converted to homeownership tenure (or other uses) became preferred over forms which were not convertible, so that the investors had the options of selling on either the rental or homeownership markets. Low density units and units in multiple unit structures which were convertible to condominium or freehold tenure became more in demand as investments, but large rental tenure structures (which cannot be converted to strata title) became less attractive.

Over the past 15 years many observers have concluded that unsubsidized investment in rental housing virtually died in the 1970's. They have perceived that there was increasingly less apartment housing built explicitly for rental housing, that apartment construction was either for the condominium market or it was subsidized by government, and that very little unsubsidized rental apartment investment occurred. However, given the seven points discussed above, the statistical evidence of decline is not surprising, and the statistics are misleading. Chapter 3 showed that a considerable amount of unsubsidized investment occurred in the 1970's. The rental stock expanded by 750,000 units, of which 430,000 were not subsidized. Including replacements for older (pre-1961) stock that disappeared between 1971 and 1981, gross investment in rental housing was 1 million units, of which 680,000 units were not subsidized.

The observers have also seen declining real rents as a major cause of the alleged death of investment. To the contrary, it should be seen as the result of very strong investment. Changes in the investment environment in the mid-1970's (high inflation and low real interest rates, interacting with the tax system) tended to increase real after-tax rates of return. It is not surprising that real rents declined while real estate values increased: this was the natural outcome of competition for investment assets in the rental housing market. The fact that

energy costs rose in real terms restrained the fall in real rents: otherwise the fall might have been larger.

This is not to say that the 1970's was a uniform boom-time. There were at least four distinct periods. The period prior to the 1972 tax reform offered modest capital gains prospects but a very favourable taxation environment. In the immediate aftermath of the 1972 reform, investors must have found rental housing much less attractive, especially considering that real estate values were relatively flat. During this period, vacancy rates fell sharply, indicating that investment was not responding to demand. Around the middle of the decade, very positive conditions emerged. Inflation increased but interest rates did not, real estate values began to increase rapidly, and the 1972 tax reform was partially rolled back (through the creation of MURB status). Towards the end of the decade, investment conditions deteriorated, as interest rates increased to unprecedented levels and real estate values were hammered. This set of changes created a very negative investment climate for the first half of the 1980's.

The First Half of the 1980's

During the 1970's, changes in the environment tended to encourage investment in rental housing and put downward pressure on real rents. During the 1980's, a combination of events discouraged investment and created pressures for real rents to increase, and they did increase. Real interest rates increased, appreciation of real estate prices was limited during the first half of the decade, and incremental changes were made to the tax regime in order to reduce tax sheltering. All of these events discouraged investment in rental housing.

Figure 4-1 (shown previously) shows that real interest rates increased in the early 1980's. In addition, both inflation and inflation expectations were reduced. Because real estate investments are generally highly levered, the increase in nominal interest rates had a significant negative effect on the cash flows of any property owners who needed to refinance their debts, and on the potential cash flows of anyone considering investment in real estate. At the same time, the economy-wide reduction of inflation and inflationary expectations removed a large component of the anticipated returns from real estate investments - expected capital gains and expected rent increases. Figure 4-2 shows that house prices peaked in 1981 and then dropped sharply during the recession. They did not recover to 1981 levels until the end of 1983 and in real terms they were 15 percent lower in 1984 than in 1981. It is reasonable to assume that expectations of capital gains were badly damaged during the first half of the 1980's.

In the early 1980's, the combination of a severe recession which reduced demand for all forms of real estate, high (real and nominal) interest rates, and depressed prices and price expectations for real estate created expectations of low profitability and discouraged investment in housing.

Residential real estate recovered slowly from the 1981-82 recession: housing starts did not return to pre-recession levels until 1985. Data from the 1981 and 1986 Censuses show that total growth in the stock of occupied housing (combining both homeownership and rental housing) averaged only 143,500 units per year, compared to 223,200 in the 1971 to 1981 period. For rental housing alone the occupied stock expanded by only 48,000 per year during 1981 to 1986, compared to 75,000 per year over 1971 to 1981. (The gross increase in the rental stock - including replacement for pre-1961 stock that disappeared - was 60,000 per year in the early 1980's,

compared to 100,000 per year in the 1970's.) More than one-half of the increase in the rental stock during 1981 to 1986 was subsidized explicitly by the federal government (social housing programs and the Canada Rental Supply Plan). Unsubsidized growth in supply was only 20,500 units per year during this period versus 43,000 per year during the very favourable conditions and investment boom of the 1970's.

In the negative investment climate of the early 1980's, rent increases were inevitable - and Chapter 3 showed that rents for constant quality housing increased by as much as 5 percent in real terms in the first half of the 1980's. Utility costs increased in real terms during this period, which accounted for some of the increase in real rents, but only some of it.

The Impacts of Housing Programs

In the 1970's and early 1980's, the federal government was particularly active in rental housing markets, using a variety of programs to stimulate corporate investment in rental housing. Given what has been written already about the change who invests in rental housing, it seems that these programs were swimming against the tide of a shift in ownership from large real estate corporations to individual investors. Furthermore, because these programs artificially stimulated supply, they also contributed to the "lagging rent" phenomenon.

Programs intended to stimulate the supply of private rental housing were the Limited Dividend Program, the Assisted Rental Program, Multiple Unit Residential Buildings, and the Canada Rental Supply Plan. These four initiatives combined to produce a total of up to 531,300 new rental housing units (although the actual number may be less, due to double-counting, non-completion of MURBs, and MURBs occupied as homeowner rather than rental units). However, the programs did not necessarily increase the stock of rental housing by the full amount of program commitments, as the programs may have subsidized starts which would have happened anyway.

An unpublished study (Fallis, et al. 1989) has assessed net impacts of these programs. The model used assumes that programs cannot permanently increase the stock of housing. The housing programs upset the market equilibrium, with the result that the supply of housing is larger than it would otherwise be. Vacancy rates are higher, which reduces rents, which in turn increases demand. The reduction in rents discourages future investment, so that the excess supply will eventually be eliminated, rents will rise, excess demand will be reduced, and the market will return to its long run equilibrium.

The study estimated that as of the end of 1987, the 4 market housing programs had generated the following results.

- The supply of multiple unit housing (including both rental and homeownership units) was 171,400 units greater than it would have been otherwise. (This is equivalent to 32.3 percent of the the total program units, and 4.4 percent of the existing stock of multiple unit housing. Low and high scenarios established a range of 62,500 to 305,000 net increase in the stock.)

- During 1984 to 1986, the vacancy rate was 1.1 percentage points higher than it would otherwise have been.

- Rents were 3.3 percent lower than they would otherwise have been.

- Because rents were only slightly below their equilibrium level, the net impact on annual new supply was minimal - multiple starts were depressed by 3,000 units in 1987.

This analysis suggests that (in the absence of future supply programs) markets rents will tend to return to the level that would have prevailed in the absence of the programs. However, the report does not indicate how long this might take. The fact that starts were reduced by only 3,000 units in 1987 indicates that the adjustment to an oversupply of 171,400 units would be prolonged. Furthermore, it is not predicted that rents will actually increase: future equilibrium rents will be determined by the then-existing demand and supply factors, including demographics, real incomes, capital costs, interest rates, operating expenses, tax rules, and expectations concerning the variables affecting profitability. If none of these factors change then rents would would tend to increase in real terms by the 3.3 percent figure by some future, unknown date.

The Second Half of the 1980's

During the second half of the 1980's, incentives to invest in rental housing were mixed. Strong real estate price gains in major urban market areas encouraged investment. An index of MLS prices shows that house prices climbed sharply during 1986 to 1989, and this coincided with the establishment of the $100,000 lifetime capital gains tax exemption.

TABLE 4-2
INDEX OF MLS AVERAGE PRICES
1981 TO 1989

Year	1981=100	Percent Change
1981	100.0	--
1982	94.9	- 5.5%
1983	97.1	+ 2.3%
1984	101.5	+ 4.5%
1985	107.1	+ 5.5%
1986	123.3	+15.1%
1987	144.4	+17.1%
1988	165.3	+14.5%
1989	186.2	+12.7%

Source: Estimates by the author using Canadian Real Estate Association data. More information is provided in Note 4.1.

On the other hand, other incremental changes in the taxation environment tended discourage investment.

Reforms of income tax rules during the 1980's were made in order to reduce tax sheltering and tax avoidance. This was intended to make the system more fair and to remove incentives for taxpayers to engage in activities and investments which are designed largely on the basis of tax considerations rather than on the basis of fundamental value.

This chapter has argued investment in rental housing provides considerable opportunities for tax sheltering. Therefore, the profitability of rental housing

investment has been negatively affected by measures intended to improve the fairness of the system.

Key changes in the second half of the 1980's had the effect of reducing tax sheltering benefits of investing in rental housing and after-tax rates of return.

- Reduction in the maximum rate for Capital Cost Allowances for housing to 4 percent from the previous rate of 5 percent does not entirely eliminate the opportunity to defer taxes by claiming excess depreciation, but it reduces it.

- A strict redefinition of "soft costs" reduced the amount of costs which can be deducted as incurred. Most of the costs must now be capitalized and depreciated at the 4 percent rate. On sale of the property, they will be recaptured as excess depreciation, rather than a capital gains.

- Marginal tax rates were reduced. Lower marginal tax rates will reduce the incentive to use any particular tax shelter.

- Unless they are exempt from taxation under the $100,000 lifetime exemption, 75 percent of capital gains are to be included in income, as compared to the previous 50 percent inclusion rate;

- Investment losses (arising from negative cash flows) remain deductible, but the taxpayer's lifetime capital gains exemption is reduced accordingly and investment losses are only deductible to the extent that the lifetime capital gains exemption has not been fully utilized.

- The combination of the higher capital gains inclusion rate and the net cumulative investment loss rule goes some way to creating a link between the inflation components of expenses and capital gains.

Until housing data are available from the 1991 Census, it is impossible to draw any conclusions concerning the balance resulting from the two contradictory influences (the positive prospects for capital gains versus the negative consequences of reduced tax sheltering opportunities. However, the fact that rents tended to increase in real terms in the late 1980's hints that conditions were not adequate to attract sufficient investment to the rental housing market. In addition, cash flow and rate of return simulations in the following section suggest that the net effect of income tax reform in the late 1980's has been to reduce after-tax of return to investments in rental housing.

Cash Flow and Rate of Return Simulations

To illustrate the potential effects of the previously-described changes in investment conditions, some simulations of cash flows and rates of return on equity have been developed. Each of the simulations is based upon expectations which might reasonably be held at various points in time.

The cash flows and rates of return shown in the simulations will not necessarily be representative of actual investments. However, they are useful because they indicate that changing conditions cause changes in expectations about potential rates of return.

In all of the scenarios, the base assumptions for rents and operating costs are held constant. The effects of changing inflation rates, mortgage interest rates, and tax parameters are simulated. Changes in these factors will cause rents to change in real terms. But, in order to better illustrate the direct, first round effects of changing inflation rates, interest rates, and tax rules, changes in real rents have been ignored. Changes in real rents would be second round effects.

The assumptions used in the simulations are described in Note 4.2.

Tables summarizing the quantitative results of the simulations are appended to this chapter. It should be noted that all of the simulations are shown in 1984 constant dollars.

The simulations support the earlier commentary about the effects of changing environmental conditions on rates of return, and the nature of returns, in the 1960's, 1970's, and 1980's.

- They indicate that rental housing has been, and still is, a very effective tax shelter. In many scenarios, the post-tax rate of return is actually higher than the pre-tax rate - in those scenarios, the effective tax rate is negative. This occurs because relatively large amounts of income from other sources can be sheltered from income tax. In the remaining scenarios, the effective tax rate is quite low - the post-tax rate of return is only slightly less than the pre-tax rate.

- They show the importance of capital gains in determining profitability. The "late 1980's high appreciation" scenario (Table 4-10) has a much higher rate of return than the "low appreciation" scenario for the same period (Table 4-9).

- The change in the nature of returns in the late 1960's/early 1970's is illustrated in Table 4-4. In the mid-1960's, the investment generates a positive cash flow in the first year. In the early 1970's, the project has a negative cash flow in the first year, but in the long term, the real rate of return on equity is higher.

- The 1972 tax reform reduced rates of return, but "other" investors were affected much more than were Principal Business Corporations (Table 4-5).

- The mid-1970's was a period during which high rates of capital appreciation combined with low real interest rates to create expectations of very high real rates of return from real estate (Table 4-6).

- In the early 1980's, high interest rates resulted in quite large negative cash flows. Deflationary expectations about real estate values caused expectations about rates of return from real estate to be very low (Table 4-7).

- Expectations recovered in the mid-1980's. The $100,000 lifetime capital gains tax exemption further increased the attractiveness of investing in real estate. For investors who were able to take advantage of the exemption, the long-term real post-tax rate of return was increased by 1 percentage point by the exemption in these simulations (Table 4-8).

- Some, but not all, real estate markets were booming in the late 1980's. In areas with low rates of expected capital appreciation, expected rates of return

were low (Table 4-9). High appreciation markets had much better expected real post-tax rates of return - they were the highest of all of the simulations (Table 4-10).

- Finally, the simulations illustrate the incremental effects of each of the tax reforms (the 1972 reform reduced expected rates of return (Table 4-5), the 1985 lifetime capital gains exemption (Table 4-8) increased expected rates of return, the 1987 reform (Tables 4-9 and 4-10) reduced expected rates of return. In combination, the tables isolate the cumulative effects of the tax reforms. The "Pre-Reform" column of Table 4-5 and the "Post-Changes" column of Table 4-9 have exactly the same assumptions, apart from tax rules. In the pre-1972 reform simulation, the real post-tax rate of return on equity is 10.4 percent. In the post-1987 reform simulation, the rates of return are considerably lower: 7.7 percent for a Principal Business Corporation and 6.9 percent for an "other investor". And, the post-1987 simulations assume that the investor can use the $100,000 lifetime capital gains exemption. If capital gains are taxed, post-1987 rates of return would be lower still.

Who is Investing in Rental Housing?

Housing market analysts from Canada Mortgage and Housing Corporation have provided anecdotal information on current investment trends. At the beginning of the 1990's, there is very little new involvement of the large real estate corporations in terms of developing and holding rental properties for their own account, except to the extent that they have unsold condominium units and are renting them until buyers are found. While they are not actively investing as landlords, the corporations are, however, active as rental developers through building for syndication or by selling condominiums to investors. In fact, there have recently been a few condominium projects marketed exclusively to investors.

Investment in the rental market is largely coming from individuals, in high, medium, and low density housing forms.

High density: Estimates of the percentage of new condominiums which are owned by investors varies from market to market, but is generally in the range of 30 to 40 percent. In fact, some condominium buildings have been marketed exclusively to investors. Investment in condominiums is motivated mainly by expectations of future capital gains. (For example, a recent study by Clayton Research Associates (1990) for Canada Mortgage and Housing Corporation estimates that the number of investor-owned condominiums in the Toronto area increased by 20,000 units, to 46,400 units between mid-1986 and the beginning of 1990). In many large urban areas, syndicators are actively marketing partnership shares to high income individuals who are looking for tax shelters.

Medium density: Individual investment is also occurring in medium density purpose-built rental housing. The housing is constructed by a developer and sold to individuals or partnerships. This may be more common in smaller communities, where appropriate and relatively inexpensive land is available in good locations.

Low density: Investment is occurring in existing homes which are converted to rental tenure (and often subdivided into two or more units). In some markets, many new houses are built with a second suite, usually in the basement, or else they are designed to be easily convertible. Buying a new or existing home with a second suite remains an option for first time buyers.

The message seems to be that large corporations can no longer be expected to invest in the rental housing market: they have been replaced by individuals, partnerships, and small, privately-owned companies.

This paper has made a general argument that individuals have replaced corporate investors in rental housing markets. However, there are differences between markets in the extent to which this has occurred. In many urban areas of Canada, the substitution has been complete. Vacancy rate data in Figure 3-1 and Table 3-12 showed that many rental housing markets have reasonable balances between supply and demand. This is not the case for all markets. Figure 3-1 indicated that a general characteristic of undersupplied markets is that high percentages of their private rental housing stocks are in high density forms. These undersupplied rental markets developed dependence on the corporate sector. Individual investors have not provided enough new supply to fully replace the corporations. There are two related aspects to this. First of all, these markets generally have high proportions of their populations living in rental housing. Annual requirements for new rental housing are very high, demanding very substantial amounts of investment. Secondly, and more importantly, for individual investors who want to invest in low (and medium) density rental housing, there are limited opportunities available.

- The stock of existing low density homeownership housing, which would be appropriate for conversion to rental housing, is limited and there is intense competition between homeowner, rental housing, and non-residential uses. Rental housing investment in existing properties does occur, but within a tight supply constraint.

- In the competition between homeownership and rental uses of existing low density housing, the playing field is not level and in a variety of ways there is discrimination in favour of homeownership. In some provinces, property taxes are effectively lower for homeowner uses than for rental as a result of homeowner tax grants, tax reductions, and tax credits. Municipal land use controls may prevent conversion of single family dwellings to multiple family buildings containing unrelated persons. Municipal dwelling standards may accept that basements and attics meet standards so long as they are used as basements and attics in single family homes, but that they are unacceptable for use in secondary suites.

- For any existing property, high ratio mortgage financing (more than 75 percent of value) is available on better terms for single-family homeownership than for the same property converted to multiple-household rental use. For single-family homeowner-occupancy, National Housing Act (NHA) mortgage insurance is available for up to 90 percent of market value. (The actual maximum loan amount may be less than 90 percent of value, depending on the borrower's ability to pay. On the other hand, some provincial governments provide downpayment assistance to low income homebuyers.) For rental uses, the maximum NHA-insured loan amount is 85 percent of market value. The actual loan may be less than 85 percent of value because of the requirement that the property generate positive cash flow: net cash flow (before debt service) must be equal to at least 105 percent of debt service costs (which, incidentally, include principal repayment). In most cases, in determining the loan amounts for NHA-insured mortgages, a higher monthly mortgage payment is acceptable for homeowner use than for rental use. In addition, if a low density property has been converted to include more than one unit, then an application fee is payable for each unit; for typical homeowner uses, for the same property, the

application fee will be for only one unit. While NHA lending criteria and fees are based on an actuarial analysis and reflect risk assessment, they have the effect of making single-family homeowner uses of existing real estate relatively more attractive than conversion to multiple household rental uses.

- High prices for land in good locations mean that it is impractical to build new low density housing (except for the limited demand for monster homes in central cities - the rental market for such homes is very thin). Land zoning tends to be polarized between low and high density use, with the exception of medium density land (often in central cities and older suburbs) which is already fully developed with old low-rise rental housing and non-residential buildings. There may be very few opportunities to construct medium density rental housing. New rental housing construction must be in high density forms. Individuals do invest in this housing, in condominiums, syndications, and, rarely, sole ownership of entire buildings, but they would generally prefer low (and medium) density forms.

Prospects for the 1990's

At least four major factors will determine expectations of future profitability of rental housing investments and thus of future investment levels: tax rules, rates of capital appreciation, interest rates (real and nominal), and net operating income.

Tax Rules:

It has been shown that reforms to the income tax system have reduced opportunities to use rental housing investments as tax shelters. This has reduced after-tax rates of return which investors can expect. All other things held constant, cash flows would need to improve in order to continue to attract investment capital to the rental housing market.

Two studies from the early 1970's (Lawrence B. Smith, 1970 and Frank A. Clayton, 1971) argued that the proposed tax reforms (which occurred in 1972) would depress investment in rental housing and increase rents. It is now widely accepted that this adjustment process began immediately following the 1972 reform. It is logical that reforms subsequent to 1972 (and especially the changes made during the second half of the 1980's), which have further reduced tax sheltering opportunities, would have the same effects.

Capital Appreciation Rates:

Capital gains have become the most important source of profits from rental housing. Future expectations about appreciation of real estate values will be crucial in determining the rate at which new rental housing supply is provided.

A number of economic researchers in the United States have been suggesting that house values could fall in real terms in the United States during the 1990's. Mankiw and Weil (1988) conclude that demographic change will substantially reduce the rate of growth of demand for owner-occupied housing. This could cause house prices to fall by 47 percent in real terms over a 20 year period (which equates to an annual rate of real decline of 3.1 percent per year). However, they caution that while past experience shows that slow growth in demand is associated with falling real prices, the anticipated reduction in demand is outside of the range of prior

experience. This makes it difficult to be confident about the magnitude of a future decline. Other analysts (for example, Laing. 1989) suggest that there has been "over-investment" in ownership housing. The argument is that real price gains during the 1970's and 1980's created expectations of future inflation, which created a significant investment demand for housing. The rates of real house price inflation are not sustainable indefinitely. When inflation expectations are reduced in future, total demand and then prices will be reduced.

Similar research has not been done for Canada and it is not clear if similar arguments could be made. On the demographic side, demand for ownership housing in Canada is not anticipated to decline by very much in the mid-term, because of increasing immigration levels. It could be that the argument concerning "over-investment" could be applied to some major markets which have experienced above average rates of real estate price increases.

All things considered, there is not yet any good reason to believe that Canadian real estate prices will fall in real terms in the foreseeable future. However, it seems that there is less likelihood of rapid price increases in the 1990's compared to the mid-1970's or late 1980's. Demographic pressures on most markets are being reduced. In terms of the positive impacts of future immigration, those markets which have the greatest potential to be affected by immigration have recently seen real estate booms and it is questionable whether further real increases can be expected.

A lower rate of actual and expected real estate appreciation would reduce expected pre-tax and after-tax rates of return to rental investments. In order to maintain rates of return, other components of profitability would have to improve.

Interest Rates:

The interest rate assumptions employed in the simulations are somewhat optimistic for the late 1980's. The assumed mortgage rate is 10.5 percent (6.25 percent real rate). In the second half of the 1980's, the actual mortgage interest rate was only briefly at the assumed level and has been higher most of the time. If real and nominal interest rates remain at high levels then interest costs would be higher and cash flows would be lower than assumed. Secondly, because rates of return from financial investments have increased, it is likely that real rates of return from rental housing must also increase in order to attract investors.

Net Operating Income:

At present, the first three factors are negative for investor expectations. In that case, in order for the rental market to attract investment, net operating incomes (rents minus operating expenses, before debt service, depreciation, and income taxes) will have to improve. Since operating expenses are relatively fixed, the improvement would have to come from increased rents. The size of the increase cannot be predicted with confidence, but the analysis of cash flows and rates of return is suggestive.

Table 4-3 shows the rates by which rents for the hypothetical investment would have to increase in order to earn real after-tax rates of return of 8 to 10 percent, which is comparable to those which it earned in the 1970's - which was a period of relatively strong investment. Current tax rules are simulated. Combinations of

assumptions are employed for two variables - rates of capital appreciation and the exemption of capital gains from taxation.

Under the high capital gain assumption (expectation of 10 percent annual appreciation) rents are not required to increase. However, this scenario is unlikely to hold for much of the 1990's.

The medium capital gain assumption is the most likely of the three (expected 5 percent annual appreciation is 1 percentage point greater than the assumed rate of inflation). This scenario results in required rent increases ranging between 2 and 20 percent, depending on the assumed target rate of return, whether the investor is able to use the capital gains tax exemption, and, to a lesser degree, whether the investor is a Principal Business Corporation or an other investor.

The low capital gain scenario (expected 2 percent annual appreciation, which is a 2 percent annual real price fall) is also possible. In this scenario, very large rent increases, ranging from 16 to 26 percent, are required.

TABLE 4-3
REQUIRED RENT INCREASES TO EARN
TARGET REAL AFTER-TAX RATES OF RETURN
FOR A HYPOTHETICAL RENTAL HOUSING INVESTMENT

	Expected Annual Rates of Capital Appreciation		
	2 Percent	5 Percent	10 Percent
8% Target Rate			
Principal Business Corporation			
Gains Exempt	16.6%	1.8%	nil
Gains Taxed	18.4%	8.2%	nil
Other Investor			
Gains Exempt	17.6%	6.0%	nil
Gains Taxed	19.1%	10.8%	nil
10% Target Rate			
Principal Business Corporation			
Gains Exempt	24.8%	13.8%	nil
Gains Taxed	26.0%	18.5%	nil
Other Investor			
Gains Exempt	25.0%	15.5%	nil
Gains Taxed	26.2%	19.4%	nil

Source: Estimates by the author.

Three large caveats must be attached to this table.

- It assumes that rents for the hypothetical project are at the same level in real terms in the late 1980's/early 1990's as they were during the 1970's. However, Chapter 3 presented evidence that rents for "constant quality housing fell in real terms during the 1970's - and possibly by a quite substantial amount - and increased slightly during the 1980's. The assumption of constant real rents may be unsupportable.

- Real interest rates in the late 1980's/early 1990's are higher than those of the 1970's. Therefore, debt service costs have actually increased in real terms but are assumed not to have changed.

- Because real interest rates are higher, target real after-tax rates of return in the late 1980's/early 1990's may be higher than they were in the 1970's.

Each of these caveats suggests that the required rent increases are higher than those indicated in Table 4-3.

Summary and Conclusions

This chapter has argued that beginning in the late 1960's/early 1970's an evolution occurred in the nature of returns earned by rental housing. Higher inflation caused interest rates to increase, resulting in negative cash flows, but inflation also caused capital gains to become the most important component of profits. This change did not suit the needs of corporate investors and caused them to cease investing in rental housing during the 1970's and 1980's. However, the change did suit other types of investors, who more-or-less replaced the corporations as the suppliers of rental housing. This theme will be further examined in Chapter 7 "Do Rent Controls Matter?".

Since the early 1970's a succession of amendments has been intended to improve the fairness of Canada's income tax rules. Because rental housing has traditionally provided considerable opportunities for tax deferral (sheltering), tax reforms have eroded the attractiveness of investing in rental housing. Nonetheless, at various times during the past two decades, especially during the mid-1970's and possibly the late 1980's, high rates of inflation of real estate values encouraged large amounts of investment from individuals. The mid-1970's investment boom was also due to a partial relaxation of the 1972 tax reforms (for MURBs) and to the failure of interest rates to respond to increasing inflation: real interest rates were close to zero percent. It seems reasonable that during boom periods increasing supply put downward pressure on real rents. It is possible that federal government housing programs may have had the effect of subsidizing housing that would have been built anyway, but the incentives no doubt had some incremental impact on supplies. This would have also put downward pressure on real rents. These two factors explain the "lagging rent" phenomenon of the 1970's.

The absence of federal government incentives for the supply of private market rental housing means that during the 1986 to 2001 period, market forces will be called upon to stimulate investment in between 24,000 to 39,000 rental housing units per year (depending on provincial and municipal government programs), plus replace any units lost through demolition, abandonment, or conversion. The high end figure, which is most likely, is similar to volumes created during the 1970's (which was a boom-time and not at all like conditions expected for the 1990's), and much greater than the volumes created during the early 1980's. Housing rents will be, more than at any time in the postwar period, determined by market forces.

At the beginning of the 1990's, investment incentives appear unfavourable. Given current major factors and current rent levels, expectations of the real after-tax rates of return that can be earned from rental housing investments may be at low levels compared to most of the 1970's and 1980's.

- Tax reforms have reduced opportunities for tax sheltering. The effect is to reduce after-tax rates of return and the amount of investment that is made in the rental market at current rent levels.

- While there will be periods of real estate inflation in various places during the 1990's, changing demographics mean that, compared to the two previous decades, there will most likely be less opportunity for rental housing investments to earn capital gains, reducing a major component of investment income.

- In the second half of the 1980's, real interest rates were much higher than during the two previous decades. This is doubly negative for rental housing investment. Higher real debt service costs will reduce cash flows. At the same time, alternative investments in fixed income securities are earning increased rates of return. The 1987 tax reform reduced marginal tax rates, thereby increasing real after-tax rates of return on fixed income investments. It could be that target rates of return for real estate investments will be higher in the 1990's than they were during the 1970's. At this time (mid-1990) there is little reason to expect that real interest rates will soon be reduced to levels comparable to the 1960's and 1970's.

- Real rents for "constant quality" housing most likely fell during the investment boom of the 1970's, although the amount of decline is unknown. In a less attractive investment climate in the 1990's, that decline will be reversed.

This chapter has argued that in the 1970's and 1980's the bulk of new investment in the rental housing market was by individuals, and in housing forms which are relatively easy to convert between rental and homeownership tenure. In the event that rates of return on rental housing investments become unattractive to current landlords, then it is to be expected that many of them will decide to sell their properties. In the absence of new investors, significant amounts of the rental housing stock could be sold to homeowners. This reduction in rental supply, and the resulting tight rental markets, could only be alleviated through rent increases sufficient to create attractive rates of return.

Certain rental markets are already undersupplied. For them, future pressures on rents will be even greater than in those markets which are currently balanced.

While it is unknown what rates of return will be required to attract investment in the 1990's, it is very likely that rents will have to increase in real terms in order to generate required levels of private investment. It seems that rental housing investment was quite attractive to individuals prior to the 1972 reform and during the mid-1970's. Simulations of cash flows and rates of return show that a hypothetical investment would require rent increase of between 2 to 20 percent in order to earn a real after-tax rates of return similar to its 1970's rate of return - and this assumes that investors will expect real estate values to increase by slightly more than the all-items inflation rate. In a low capital gains scenario, required rent increases range between 17 to 26 percent.

These simulations show the effects of two changes which will reduce profitability in the 1990's compared to the 1970's: tax reforms which have made rental housing less attractive as a tax shelter, and lower expectations of capital gains. The simulations assume that interest rates will be at the same level in the 1990's as

they were in the 1970's. At this point in 1990, that does not appear likely. In addition, it appears that rents are lower in real terms than they were in the 1970's. Both of these factors, if incorporated, would result in even greater requirements for real rent increases.

This chapter concludes that it is plausible that for the foreseeable future real rents will continue to increase at the rate seen during 1981 to 1986. For the 15 years from 1986 to 2001, this results in a monthly rents increasing by 10.8 percent in real terms, or an average of $46.50 in 1986 dollars. Because the largest share of the growth in demand for rental housing will be in the lowest rent ranges (as will be shown in Chapter 6), rent increases will tend to be greatest for older, less expensive housing. The implications of this rent increase for the future incidence of housing affordability problems is assessed in Chapter 7.

TABLE 4-4
A HYPOTHETICAL RENTAL INVESTMENT IN THE
MID-1960'S AND EARLY 1970'S

	Mid-1960's	Early 1970's
First year cash flow (Constant dollars)	+$ 451	-$ 472
Assumed annual rate of capital appreciation	+ 0.0%	+ 5.0%
Pre-tax rate of return	+ 9.1%	+12.0%
Post-tax rate of return	+10.4%	+14.9%
Real post-tax rate of return	+ 8.2%	+10.4%

Source: Estimates by the author.

TABLE 4-5
IMPACT OF THE 1972 TAX REFORM ON RATES OF RETURN
FOR A HYPOTHETICAL RENTAL HOUSING INVESTMENT

	Pre-Reform	Post-Reform - Principal Business Corporation	Post-Reform Other Investor
First year cash flow (Constant dollars)	-$ 472	-$ 472	-$ 472
Assumed annual rate of capital appreciation	+ 5.0%	+ 5.0%	+ 5.0%
Pre-tax rate of return	+12.0%	+12.0%	+12.0%
Post-tax rate of return	+14.9%	+13.3%	+11.7%
Real rate of return	+10.4%	+ 8.9%	+ 7.4%

Source: Estimates by the author.

TABLE 4-6
A HYPOTHETICAL RENTAL INVESTMENT IN THE MID-1970'S

	MURB Investor or Principal Business Corporation	Other Investor
Pre-tax 1st year cash flow (Constant dollar)	- $472	- $472
Assumed annual rate of capital appreciation	+10.0%	+10.0%
Pre-tax rate of return	+20.0%	+20.0%
Post-tax rate of return	+21.2%	+19.9%
Real post-tax rate of return	+10.2%	+ 9.0%

Source: Estimates by the author.

TABLE 4-7
A HYPOTHETICAL RENTAL INVESTMENT IN THE EARLY 1980'S

	Principal Business Corporation	Other Investor
Pre-tax 1st year cash flow (Constant dollar)	-$2951	-$2951
Assumed annual rate of capital appreciation	+ 0.0%	+ 0.0%
Pre-tax rate of return	+13.6%	+13.6%
Post-tax rate of return	+14.3%	+12.8%
Real post-tax rate of return	+ 2.1%	+ 0.7%

Source: Estimates by the author.

TABLE 4-8
A HYPOTHETICAL RENTAL INVESTMENT IN THE MID-1980'S

	Principal Business Corporation		Other Investor	
	Gains Exempt	Gains Not Exempt	Exempt	Not Exempt
Pre-tax 1st year cash flow (Constant dollar)	- $472	-$ 472	- $472	-$ 472
Assumed annual rate of capital appreciation	+ 5.0%	+ 5.0%	+ 5.0%	+ 5.0%
Pre-tax rate of return	+12.0%	+12.0%	+12.0%	+12.0%
Post-tax rate of return	+14.3%	+13.3%	+12.8%	+11.7%
Real post-tax rate of return	+ 9.9%	+ 8.9%	+ 8.4%	+ 7.4%

Source: Estimates by the author.

TABLE 4-9
A HYPOTHETICAL INVESTMENT IN THE LATE 1980'S
BEFORE AND AFTER 1987 REFORMS
LOW APPRECIATION SCENARIO

	Principal Business Corporation		Other Investor	
	Pre-Changes	Post-Changes	Pre-Changes	Post-Changes
First year cash flow (Constant dollars)	-$ 472	-$ 472	-$ 472	-$ 472
Assumed annual rate of capital appreciation	+ 5.0%	+ 5.0%	+ 5.0%	+ 5.0%
Pre-tax rate of return	+12.0%	+12.0%	+12.0%	+12.0%
Post-tax rate of return	+14.3%	+12.0%	+12.8%	+11.2%
Real post-tax rate of return	+ 9.9%	+ 7.7%	+ 8.4%	+ 6.9%

Source: Estimates by the author.

TABLE 4-10
A HYPOTHETICAL INVESTMENT IN THE LATE 1980'S
BEFORE AND AFTER 1987 REFORMS
HIGH APPRECIATION SCENARIO

	Principal Business Corporation		Other Investor	
	Pre-Changes	Post-Changes	Pre-Changes	Post-Changes
First year cash flow (Constant dollars)	-$ 472	-$ 472	-$ 472	-$ 472
Assumed annual rate of capital appreciation	+10.0%	+10.0%	+10.0%	+10.0%
Pre-tax rate of return	+17.0%	+17.0%	+17.0%	+17.0%
Post-tax rate of return	+20.0%	+17.6%	+18.5%	+16.7%
Real post-tax rate of return	+15.4%	+13.1%	+13.9%	+12.2%

Source: Estimates by the author.

POTENTIAL DEMAND FOR RENTAL HOUSING

Canada Mortgage and Housing Corporation has developed a microcomputer demographic model for projecting population, household growth, and potential housing demand. Recently, a member of CMHC's Research Division staff - Roger Lewis - has used the model to develop projections for each of the provinces and territories for the period 1986 to 2011. Six different scenarios were projected. In this chapter, the "most likely" scenario (as judged by both Roger Lewis and myself) is presented. The projections were not developed for this project and, at this time, the projections are unpublished but I have been allowed to use them as a critical input into this research project.

The projections are for "potential housing demand". They are developed using a demographic approach - population is projected using migration, fertility rate, and survival rate projections from Statistics Canada. For each age cohort of the projected population, the analyst projects rates for household formation, household types, and tenure choices. The output is a matrix showing household types (5 types), by age group (7 age categories), by housing tenure (owners versus renters). While economic circumstances (especially growth in employment and incomes and changes in housing costs) can be expected to influence household formation rates and tenure choices, long term economic assumptions are not developed or explicitly considered in the projection methodology. Furthermore, the projections are not for housing starts. They do not consider requirements for replacement of demolished, converted, or abandoned housing or project vacancy requirements or changes in vacancies. Finally, new housing supply can be converted through processes other than new construction, which change the uses of existing structures (residential or non-residential). For all of these reasons, the projections are intended to show the influences of population change in creating the potential for housing demand rather than to forecast actual demand.

In this chapter, Roger Lewis's "most likely" projections of potential housing demand are shown. Key changes and their implications are highlighted, then the assumptions which underlie the projections are described. Some uncertainty is expressed, especially concerning the implications of recent economic and demographic changes. Notwithstanding that there is uncertainty, I consider the scenario presented in this chapter to be the "most likely". Five other scenarios developed by Roger Lewis are briefly compared to the base scenario. A detailed table containing Roger's projections is appended to this chapter (showing potential housing demand for owners, renters, and both tenures combined).

Highlights of the Projections

Between 1986 and 2001, potential housing demand is 2.64 million households (176,000 per year).

TABLE 5-1
POTENTIAL HOUSING DEMAND
1986 TO 2001

Tenure	1986 Households	2001 Households	Change 1986-01
Owned	5,608,236	7,425,786	+1,817,550
Rented	3,383,329	4,210,160	+ 826,831
Total	8,991,565	11,635,946	+2,644,381

Source: Potential Housing Demand Model: 1986 Census data and unpublished projections for 2001 by Roger Lewis, Canada Mortgage and Housing Corporation.

The projections of total households (both tenures combined) show that between the years 1986 and 2001 the fastest growing age groups of households are

- those 75 years of age and over in 2001. This is the pre-Great Depression/pre-Second World War generation.

- those aged 35 to 54 years old in 2001. This is the Baby Boom generation - born in 1946 to 1966). It will replace the much smaller generation born during the Great Depression or Second World War, which will be 55 to 74 years old in 2001.

The 55 to 74 year old age groups will grow strongly during 1986 to 2001.

The youngest age groups (under 35 years of age) will decline in size between 1986 and 2001. This is the Baby Bust generation - born after 1966. It will replace the much larger Baby Boom.

Among the five household types, non-family households are expected to have the most rapid growth rate, increasing by 39 percent versus 26 percent for the four types of family households. This is a continuation of a trend which has existed since the Second World War.

The aging of households should cause homeowner households to grow more rapidly than renter households, since the probability of being a homeowner is highest for the middle age groups. On the other hand, the rapid increase in non-family households would tend to shift the tenure distribution towards renting, since at any age non-family households are less likely to be homeowners than are families. The projections indicate that the effect of an aging population will dominate. The number of homeowner households is projected to grow by 32.4 percent between 1986 and 2001 while the number of renter households will grow at a much slower rate of 24.4 percent. In consequence, the proportion of total households who are homeowners rises from 62.4 in 1986 to 63.8 percent in 2001. Renters fall from 37.6 percent of total households in 1986 to 36.2 percent in 2001.

Table 5-2 shows the actual and projected distribution of renter households by household type. It indicates that non-family households will continue to be the fastest growing household type, reaching almost one-half of all renter households by 2001. Among the four types of family households, lone parent families will be the

fastest growing group. Since Chapter 2 showed that lone parent families and non-family households have the greatest incidence of affordability problems, this change in the household type composition of the renter population implies that the total incidence of affordability problems among renters may increase to the end of the century.

TABLE 5-2
DISTRIBUTION OF RENTER HOUSEHOLDS
BY TYPE OF HOUSEHOLD
1986 VERSUS 2001

Household Type	1986 Households	2001 Households
Couples Without Children	20.1%	18.3%
Couples With Children	21.3%	19.6%
Lone Parent Families	12.9%	12.3%
Multiple Family Households	0.5%	0.5%
Non-Family Households	45.2%	49.3%
All Renter Households	100.0%	100.0%

Source: Potential Housing Demand Model: 1986 Census data and unpublished projections for 2001 by Roger Lewis, Canada Mortgage and Housing Corporation.

The data in Table 5-3 show that the renter population will become older as a group. In 1986, the renter population was relatively young: 45.4 percent of them were under 35 years of age. By 2001, the proportion of renters under the age of 35 falls by ten percentage points to 35.3 percent. One-quarter (27.0 percent) of the 1986 renter population was 55 years of age or older. The proportion aged 55 and over rises 4 percentage points to 31.1 percent in 2001. The fastest growing age group is aged 35 to 54. It increases from 27.7 percent of renter households in 1986 to 33.6 percent in 2001.

TABLE 5-3
AGE DISTRIBUTION OF RENTER HOUSEHOLDS
1986 VERSUS 2001

Age Group	1986 Households	2001 Households
15-24	13.2%	10.2%
25-34	32.2%	25.1%
35-44	17.5%	19.5%
45-54	10.2%	14.1%
55-64	9.9%	10.0%
65-74	9.5%	10.3%
75+	7.6%	10.8%
Total	100.0%	100.0%

Source: Potential Housing Demand Model: 1986 Census data and unpublished projections for 2001 by Roger Lewis, Canada Mortgage and Housing Corporation.

The economic circumstances of younger renters can be expected to improve as they age (among renters average household incomes peak for the 25 to 54 age groups), and most renters under the age of 35 can realistically aspire to being homeowners in future. Chapters 1 and 2 showed that for older age groups the rate of homeownership declines and there are fewer prospects that aging will bring improvement in economic circumstances (as average renter household incomes decline for age groups of 55 and older). Between 1986 and 2001 the tail end of the baby boom will move out of low income categories, into their prime working years. On the other hand, the number of renters who have retired or are close to retirement will rise substantially. The outcome could be that the economic circumstances and prospects of renters will be less favourable in 2001 than in 1986. A second implication of the changing age distribution is that the incidence of housing affordability problems among renters could rise between 1986 and 2001. These issues will be explored in the next chapter.

Chapter 4 indicated that first-time homebuyers represent a potential source of supply of modest rental accommodation, since many of them will temporarily install a secondary suite in their homes, and use the rental income to help defray mortgage costs until their incomes improve relative to their housing costs. The projections of potential homeowner demand indicate the the number of younger homeowners could fall by almost 100,000 between 1986 and 2001, as is shown in Table 5-4. This suggests that the supply of secondary suites could also decline, reducing one component of the low cost rental housing stock. Furthermore, if house prices are flat during the 1990's, as was suggested in Chapter 4, then the percentage of young homeowners who need rental income from a secondary suite may be smaller.

TABLE 5-4
POTENTIAL NUMBERS OF YOUNGER HOMEOWNERS
1986 AND 2001

Age Group	1986 Homeowners	2001 Homeowners	Net Change	% Change
15-24	89,652	78,325	-11,327	-12.6%
25-34	1,035,274	948,134	-87,140	- 8.4%

Source: Potential Housing Demand Model: 1986 Census data and unpublished projections for 2001 by Roger Lewis, Canada Mortgage and Housing Corporation.

Assumptions

The Potential Housing Demand Model (PHD) has three principal projection components: population projection, household projection, and housing demand. The projections shown in this chapter are for Canada, but they were based on separate projections (and assumptions) for each of the provinces and territories.

Population:

The population section projects population by sex and single year of age. For the years up to 1989, Statistics Canada post-censal population estimates were used. For the remainder of the projection period, projections were made based on assumptions concerning fertility rates, survival rates, and net migration.

Births were projected based on 1987 age-specific fertility rates.

Survival rates were taken from Statistics Canada projections.

Two components of net migration are considered in the model - international and interprovincial.

International net migration is the difference between immigration and emigration. For international immigration Statistics Canada's "high" scenario was used, in which annual immigration increases from 170,000 in 1989-90 to 200,000 by 1994-95 and remains at that level for the remainder of the projection period. Because of experience during the 1980's, one adjustment was made to the high scenario: Quebec's share of total immigration to Canada was reduced and the Ontario share was increased. For emigration, a constant fraction of the population was assumed to leave Canada each year.

For interprovincial net migration, two of Statistics Canada's scenarios were used. Scenario "A" is similar to the 1984-87 period when there was heavy migration to Central Canada from other provinces: Nova Scotia, Quebec, Ontario, and British Columbia have positive net interprovincial migration; the others experience net outflows. Scenario "C" assumes a partial return to the experience of 1977-81: Ontario, Alberta, British Columbia, and the Yukon have positive net interprovincial migration; the other provinces have net outflows. In the "most likely" projection, scenario "C" was used.

Households:

The model uses headship rates to project family and non-family households. Then the family households are divided into four family types: couples without children, couples with children, lone parent families, and multiple family households.

Headship rates are based on 5 year age groups, starting at age 15. The last age category is 75 years and over. There are three headship rate scenarios: low, medium, and high. The "most likely" case was based on the medium headship rate scenario.

In the low headship rate scenario, headship rates are held constant at 1986 levels. This assumes that the younger age groups do not recover from headship rate declines that occurred during 1981 to 1986.

The medium scenario was based on patterns of change in family and non-family headship rates between 1976 and 1986. Between 1986 and 2011 headship rates generally increase by one-half of the actual increase (or decrease) that occurred during 1976 to 1986. The projected changes to the headship rates were generally concentrated in the early years of the projection period, and would be almost fully incorporated by 2001. Some amendments were made to the headship rates, including two general sets of amendments. Firstly, during 1981 to 1986, headship rates for the young age groups (15 to 34 years) were depressed, as was shown in Chapter 1. The medium scenario is for a rebound. Secondly, growth in the oldest population group in the model (75 years and over) includes a significant increase in the very old population (85 years and over). Because a high fraction of the very old will be unable to live independently, increases in the headship rate for the 75 plus group were moderated.

Table 5-5 shows the actual 1986 and final projected headship rates for 2001. Total headship rates are projected to rise modestly for all age groups. Generally, there is a shift away from family households to non-family (although the family headship rates rise over the 40 to 59 age groups).

TABLE 5-5
HEADSHIP RATES, 1986 AND 2001

Age	Family Headship Rate		Non-Family Headship Rate		Total Headship Rate	
	1986	2001	1986	2001	1986	2001
15-19	.00860	.00857	.01291	.01725	.02151	.02582
20-24	.12004	.10827	.09942	.12365	.21946	.23192
25-29	.30899	.29227	.12471	.14977	.43370	.44024
30-34	.40493	.39328	.10226	.12103	.50719	.51431
35-39	.45333	.44876	.08208	.09564	.53541	.54440
40-44	.47408	.47450	.07501	.08592	.54909	.56042
45-49	.47316	.47470	.07870	.08763	.55186	.56233
50-54	.46495	.46888	.09333	.10006	.55828	.56894
55-59	.44484	.44526	.12055	.12680	.56539	.57206
60-64	.41408	.41079	.16071	.16580	.57479	.57659
65-69	.38810	.38636	.21855	.22337	.60665	.60973
70-74	.34973	.34616	.28435	.29233	.63408	.63849
75+	.23670	.23015	.33551	.34416	.57221	.57431

Source: Potential Housing Demand Model: 1986 Census data and unpublished projections for 2001 by Roger Lewis, Canada Mortgage and Housing Corporation.

The high headship rate scenario doubles the increase or decrease from the medium scenario.

The distribution of family households into four types of families was based on 1986 patterns by 10 year age group.

Demand:

Households were divided into owners and renters by applying 1986 ownership propensities to household types by 10 year age groups.

Uncertainty

A variety of social and economic factors will interact to determine growth in the number of households, the types of households formed, and tenure choices, which will result in actual housing demand. The most important among the factors are fertility, marriage and divorce rates, employment and income levels, and the relative costs of renting versus homeownership.

Fertility:

The population section of the Potential Housing Demand model projects annual births. It is assumed that fertility rates will remain at 1987 levels. Projections of births will not directly affect household formation and housing demand during the 1986 to 2001 period since any children born will not reach the age of 15 until after

the end of the projection period. However, birth rates will influence decisions to form households, the types of households that are formed, and tenure choices. Should fertility rates increase compared to the assumptions, then there would be a shift in household composition towards couples with children and lone parent families and away from non-family households and childless couples.

Marriage and Divorce:

Between 1981 and 1986, the proportions of the population living in couples (married or in common law unions) fell for all age groups apart from males aged 65 and over and females aged 60 and over (Statistics Canada: 1990. Table 7). This is due to continued reductions in marriage rates and what Statistics Canada terms "propagation" of divorce rates through the population (meaning that the most recent marriages are most likely to end in divorce than are marriages which occurred during earlier years). These events will tend to increase non-family headship rates at the expense of family headship rates and increase the prevalence of lone parent families among all families. Future rates of marriage and common law union and divorce will be crucial in determining headship rates.

The "medium" headship rate assumption projects continued increases in headship rates, especially for non-family households. This probably implies a continuation of trends towards delayed marriage and increased divorce. However, since these two factors are not explicitly projected or incorporated, there is some risk that actual change in headship rates over a 15 year period could be more or less than projected. There is also a possibility that lone parent families will become an increasing proportion of all families, although the projections assume that age-specific family proportions will remain constant.

Employment and Income Levels:

Chapter 1 showed that employment-to-population ratios trended upwards during the 1970's, fell in the early 1980's, generally recovered by mid-decade, and then continued to trend upwards to the end of the decade. This upward trend creates the possibility of strong increases in headship rates, as increasing proportions of the population achieve economic independence and are able to afford their own dwelling. For the 55 to 64 year age group, however, the employment-to-population ratio has trended downwards since the beginning of the data series (1975). This might reflect a trend to voluntary and planned early retirement. However, there is a possibility that it reflects a combination of early retirement and demand conditions in the labour market and may not always be voluntary or planned. A Statistics Canada study (Lindsay: 1987) of males aged 55 to 64 showed that there was a large increase between 1975 and 1985 in older males who were either unemployed (+37,000) or had withdrawn from the labour force after having lost or been laid off from their last job (+34,000). The combined growth (+71,000) in these two categories accounted for 39.4 percent of the growth of older males who were not employed and was higher than the growth in the number who had retired (+65,000). Because it is uncertain to what extent the decline in the employment-to-population ratio for the 55 to 64 age group was due to demand conditions it is also uncertain how it will affect future headship rates and tenure choices. Table 5-6 shows the data from the Statistics Canada study.

TABLE 5-6
LABOUR FORCE STATUS OF MEN AGED 55 TO 64
1975 AND 1985, IN THOUSANDS

Status	1975	1985	Net Change
Employed	682	708	+ 26
Not Employed:			
Unemployed	28	65	+ 37
Not in Labour Force			
- lost, or laid off from last job	14	48	+ 34
- retired	33	98	+ 65
- not in the labour force in the previous 5 years or never worked	64	110	+ 46
- other reasons	74	72	- 2
Total Not Employed	213	393	+180
Total Male Population 55-64	896	1,101	+205

Source: Lindsay (1987), page 14.

Chapter 1 also showed that the distribution of hourly wage rates became more polarized during 1981 to 1986, with relative wages falling for the youngest age groups (under 35 years) and rising for older age groups. Chapter 1 speculated that this shift in relative wage rates (especially in combination with changes in employment-to-population ratios) explains actual changes in headship rates and tenure choices between 1981 and 1986. Whether this young generation (aged less than 35 years in 1986) will recover in relative terms as it ages will determine whether it can form households at the same rate and make the same tenure choices as previous generations. Similarly, for coming generations of young adults labour market conditions will influence their housing demands. The assumptions for headship rates and tenure choices in the "most likely" scenario implicitly assume that neither of these concerns will be important during the projection period: as the generation that was aged 15 to 34 in 1986 ages its headship rates will be higher than those of previous generations, and its tenure choices (homeownership rate) will be the same as the previous generations; future young generations will have higher headship rates than the 1986 generation.

Housing Costs:

Chapter 4 concluded that there is the possibility that residential real estate values will be soft during the 1990's: the experience of the 1970's and the second half of the 1980's (house prices increasing significantly in real terms) is unlikely

to be repeated on a wide scale and some economists from the United States suggest that house prices could fall in real terms during the 1990's. These conclusions are based on scenarios of slow growth in total housing demand compared to the 1970's and 1980's.

Chapter 4 also concluded that housing rents could rise in real terms between 1986 and 2001. (It was suggested that a continuation of the 1981 to 1986 rate of increase was likely, indicating a 10.8 percent real increase between 1986 and 2001.) This is due to a deterioration of investment incentives (caused by elimination of tax sheltering opportunities and reduced expectations of capital gains).

If the relative costs of owning versus renting are altered in favour of homeownership, is it reasonable to assume that cohort tenure choices will remain at their 1986 levels?

The scenario for changes in relative costs for owning and renting is similar to the 1981 to 1986 period - and Chapter 1 (Table 1-3) showed that in 1981 to 1986 there was a tenure shift towards homeownership for older age groups (45 years of age and over). However, there was a shift away from ownership for the younger age groups. Chapter 1 attributed these shifts to labour market conditions. For older age groups as compared to younger age groups, there were increases in relative wages and a relatively fast recovery from the 1981 to 1982 recession. Changing housing costs (slow growth in house prices and rents increasing in real terms) were, undoubtedly, also important influences on tenure shifting.

For the younger age groups (under 35 years) in the first-time homebuying years, flat house prices and increasing rents could both permit and encourage earlier homebuying (assuming that labour market conditions are supportive). On the other hand, if flat house prices begin to affect perceptions of the value of homeownership as an investment, early homebuying could just as easily be discouraged. I expect that the reduced cost of homeownership relative to renting will dominate over the reduced attractiveness of homeownership as an investment and that within the younger age groups there will be some tenure shifting towards homeownership. Overall, however, the under 35 age groups are shrinking in size. By 2001 they will account for 21.6 percent of all households, down from 29.6 percent in 1986, and they will increasingly be composed of non-family households, which are less likely to move into homeownership. The size of the tenure shift, if any occurs, may not be substantial.

For the middle age groups (35 to 54), changes in relative housing costs would also tend to cause some shifting towards homeownership. However, given that this generation did not fare well economically during 1981 to 1986, there is some question about whether they will be able financially to move into homeownership at the same ages as previous generations.

At older ages (55 and over) empty nester couples and widows may decide to sell the family home and move to a rented dwelling. How will changes in relative housing costs affect these decisions? For the older age groups any declines in real estate values will not impact on their cash cost of living, since it was determined by the price at the time they purchased the house. Expectations that future house price increases will be low would negatively affect perceptions about the value of holding onto the house for a few more years to accrue capital gains. If perceptions change in response to a prolonged period of low house price inflation, they may tend to encourage earlier shifting to rental tenure, especially towards the end of the

1990's. However, perceptions concerning rent levels also discourage movement and slow rates of house price increases would also constrain housing wealth and make older homeowners more cautious about moving to rental housing for which future costs are uncertain.

Other:

During the 1990's immigration will be account for an increasing share of population and household growth. The projections implicitly assume that immigrants will have the same headship rates and tenure preferences as the Canadian-born population, which will not necessarily be true.

The population continues to become concentrated in larger urban centres through intraprovincial migration. This could result in changes in headship rates and tenure choices during the 1990's, but the projections take no account of subprovincial effects.

Wrap-Up:

Future trends in fertility, marriage and divorce, income and employment prospects for the youngest and oldest age groups, and long run trends in housing costs are the great imponderables. There is no doubt that these factors will be key in determining future changes in headship rates, household types, and tenure choices. While the "most likely" case is for some increase in headship rates, the projections are not explicitly linked to the social and economic determinants of household formation. In terms of tenure choices, the projections assume that choices for age/household type cohorts will be the same in 2001 as in 1986. Changes in the relative costs of owning and renting will certainly affect tenure choices over a fifteen year period. A consideration of the impacts of changes in relative costs of owning versus renting on three generations concluded that the net effect of this one factor is a possibility of a limited amount of shifting towards homeownership. On the other hand, I am not able to develop any assumptions concerning the degree to which future labour market conditions will affect headship rates or tenure choices. However, I am of the view that the most important influence on tenure choices is life-cycle - which determines space requirements, willingness and ability to maintain a dwelling, and the importance which people attach to financial security. Housing costs (and the relative costs of owning and renting, as well as employment status and income) are important, but less important than life-cycle: economic factors constrain or permit the choices which are primarily dictated by the needs and expectations associated with age and family circumstances.

Having considered all of the factors discussed in this section, I am satisfied that Roger Lewis' assumptions and projections of potential housing demand projection, as shown in this chapter, are the "most likely".

Alternative Projections

The following (Table 5-7) summarizes Roger Lewis' six sets of assumptions (for interprovincial net migration and headship rates) as well as the projections of the growth in households over the 15 year period. The six sets of projections show a range of potential housing demand from 1986 to 2001 of between 2.45 million to 2.82 million units. The "most likely " scenario is in the middle of the range, for 2.64 million. For homeowners, the projections show little variability (only 3.2 percent between the lowest and highest projections). For renters, however, there is

considerable variation (46.5 percent difference between lowest and highest). This is because headship rates have historically been most unstable for the youngest age groups. The 3 sets of headship rate assumptions are quite different for these age groups and the youngest age groups are much more likely to rent than to own.

TABLE 5-7
SIX PROJECTIONS OF POTENTIAL HOUSING DEMAND (1)
1986 TO 2001

Scenario	Interprovincial Net Migration Assumption	Headship Rate Assumption	Potential Demand - Owners	Potential Demand - Renters	Potential Demand - Total
1	"A"	Low	1,783,526	670,818	2,454,344
2	"A"	Medium	1,807,965	828,194	2,636,159
3	"A"	High	1,831,374	981,266	2,812,640
4	"C"	Low	1,792,498	669,772	2,462,720
5 *	"C"	Medium	1,817,550 *	826,831 *	2,644,381 *
6	"C"	High	1,841,148	979,552	2,820,700

Source: Unpublished projections by Roger Lewis, Canada Mortgage and Housing Corporation. Assumptions for net interprovincial migration and headship rates are discussed under "Assumptions" in the previous section.

Notes: * Indicates most likely scenario.
(1) Potential growth in occupied housing stock.

TABLE 5-8
ACTUAL AND POTENTIAL HOUSING DEMAND (1)
FOR OWNER AND RENTER HOUSEHOLDS, 1986 TO 2001

Source: Potential Housing Demand Model: 1986 Census data and unpublished projections for 2001 by Roger Lewis, Canada Mortgage and Housing Corporation.

Note: (1) Occupied housing units.
1986 counts of actual units differ from those shown in previous chapters. Explanation is provided in Chapter 6 in section "The Data".

Owner Households

Age	Couples Without Children	Couples With Children	Lone Parent Families	Multiple Family Households	Non-Family Households	All Household Types
15-24						
1986	34,480	27,770	4,850	988	21,564	89,652
2001	27,583	22,147	3,881	816	23,898	78,325
change	- 6,897	- 5,623	- 969	- 172	+ 2,334	- 11,327
%	- 20.0	- 20.2%	- 20.0%	- 17.4%	+ 10.8%	- 12.6%
25-34						
1986	206,985	673,741	41,161	11,516	101,871	1,035,274
2001	185,656	602,740	37,061	10,470	112,207	948,134
change	- 21,329	- 71,001	- 4,100	- 1,046	+ 10,336	- 87,140
%	- 10.3%	- 10.5%	- 10.0%	- 9.1%	+ 10.1%	- 8.4%
35-44						
1986	118,300	1,049,753	100,940	16,390	95,123	1,380,506
2001	157,218	1,395,325	134,371	21,975	146,187	1,855,076
change	+ 38,918	+345,572	+ 33,431	+ 5,585	+ 51,064	+ 474,570
%	+ 32.9%	+ 32.9%	+ 33.1%	+ 34.1%	+ 53.7%	+ 34.4%
45-54						
1986	186,659	683,503	90,140	18,889	87,968	1,067,159
2001	315,156	1,144,383	151,035	32,448	160,321	1,803,343
change	+128,497	+460,880	+ 60,895	+13,559	+ 72,353	+ 736,184
%	+ 68.8%	+ 67.4%	+ 67.6%	+ 71.8%	+ 82.2%	+ 69.0%
55-64						
1986	399,818	344,807	71,912	19,730	157,350	993,617
2001	494,500	425,428	88,848	24,513	199,525	1,232,814
change	+ 94,682	+ 80,621	+ 16,936	+ 4,783	+ 42,175	+ 239,197
%	+ 23.7%	+ 23.4%	+ 23.6%	+ 24.2%	+ 26.8%	+ 24.1%
65-74						
1986	361,792	87,405	35,740	9,495	203,939	698,371
2001	466,926	112,149	45,681	12,212	271,303	908,271
change	+105,134	+ 24,744	+ 9,941	+ 2,717	+ 67,364	+ 209,900
%	+ 29.1%	+ 28.3%	+ 27.8%	+ 28.6%	+ 33.0%	+ 30.1%
75+						
1986	141,735	16,894	21,427	2,914	160,687	343,657
2001	242,271	28,547	36,183	4,930	287,892	599,823
change	+100,536	+ 11,653	+ 14,756	+ 2,016	+127,205	+ 256,166
%	+ 70.9%	+ 69.0%	+ 68.9%	+ 69.2%	+ 79.2%	+ 74.5%
Total						
1986	1,449,769	2,883,873	366,170	79,922	828,502	5,608,236
2001	1,889,310	3,730,719	497,060	107,364	1,201,333	7,425,786
change	+439,541	+846,846	+130,890	+27,442	+372,831	+1,817,550
%	+ 30.3%	+ 29.4%	+ 35.7%	+ 34.3%	+ 45.0%	+ 32.4%

Renter Households

Age	Couples Without Children	Couples With Children	Lone Parent Families	Multiple Family Households	Non-Family Households	All Household Types
15-24						
1986	119,024	53,170	45,386	1,372	227,317	446,269
2001	95,168	42,703	36,451	1,134	252,996	428,452
change	-23,856	- 10,467	- 8,935	- 238	+ 25,679	- 17,817
%	- 20.0%	- 19.7%	- 19.7%	-17.3%	+ 11.3%	- 4.0%
25-34						
1986	228,064	303,083	138,729	5,254	413,645	1,088,775
2001	203,782	271,590	124,026	4,740	451,989	1,056,127
change	-24,282	- 31,493	-14,703	- 514	+ 38,344	- 32,648
%	- 10.6%	- 10.4%	- 10.6%	- 9.8%	+ 9.3%	- 3.0%
35-44						
1986	57,588	207,094	130,362	3,590	192,294	590,928
2001	76,394	275,219	172,513	4,801	293,796	822,723
change	+18,806	+ 68,125	+42,151	+1,211	+101,502	+231,795
%	+ 32.7%	+ 32.9%	+ 32.3%	+33.7%	+ 52.8%	+ 39.2%
45-54						
1986	49,568	95,917	66,592	2,940	130,325	345,342
2001	82,997	159,322	110,308	5,017	236,305	593,949
change	+33,429	+ 63,405	+43,716	+2,077	+105,980	+248,607
%	+ 67.4%	+ 66.1%	+ 65.6%	+70.6%	+ 81.3%	+ 72.0%
55-64						
1986	81,970	45,137	35,226	2,546	168,516	333,395
2001	101,438	55,930	43,533	3,191	215,505	419,597
change	+19,468	+ 10,793	+ 8,307	+ 645	+ 46,989	+ 86,202
%	+ 23.8%	+ 23.9%	+ 23.6%	+25.3%	+ 27.9%	+ 25.9%
65-74						
1986	89,988	12,980	13,461	1,189	205,249	322,867
2001	117,845	16,946	17,491	1,589	279,194	433,065
change	+27,857	+ 3,966	+ 4,030	+ 400	+ 73,945	+110,198
%	+ 31.0%	+ 30.6%	+ 29.9%	+33.6%	+ 36.0%	+ 34.1%
75+						
1986	54,914	2,751	6,990	327	190,771	255,753
2001	94,105	4,713	11,889	573	344,967	456,247
change	+39,191	+ 1,962	+ 4,899	+ 246	+154,196	+200,494
%	+ 71.4%	+ 71.3%	+ 70.1%	+75.2%	+ 80.8%	+ 78.4%
Total						
1986	681,116	720,132	436,746	17,218	1,528,117	3,383,329
2001	771,729	826,423	516,211	21,045	2,074,752	4,210,160
change	+90,613	+106,291	+79,465	+3,827	+546,635	+826,831
%	+ 13.3%	+ 14.8%	+ 18.2%	+22.2%	+ 35.8%	+ 24.4%

Owners and Renters Combined

Age	Couples Without Children	Couples With Children	Lone Parent Families	Multiple Family Households	Non-Family Households	All Household Types
15-24						
1986	153,504	80,940	50,236	2,360	248,881	535,921
2001	122,751	64,850	40,332	1,950	276,894	506,777
change	- 30,753	- 16,090	- 9,904	- 410	+ 28,013	- 29,144
%	- 20.0%	- 19.9%	- 19.7%	- 17.4%	+ 11.3%	- 5.4%
25-34						
1986	435,049	976,824	179,890	16,770	515,516	2,124,049
2001	389,438	874,330	161,087	15,210	564,196	2,004,261
change	- 45,611	-102,494	- 18,803	- 1,560	+ 48,680	- 119,788
%	- 10.5%	- 10.5%	- 10.5%	- 9.3%	+ 9.4%	- 5.6%
35-44						
1986	175,888	1,256,847	231,302	19,980	287,417	1,971,434
2001	233,612	1,670,544	306,884	26,776	439,983	2,677,799
change	+ 57,724	+413,697	+ 75,582	+ 6,796	+152,566	+ 706,365
%	+ 32.8%	+ 32.9%	+ 32.7%	+ 34.0%	+ 53.1%	+ 35.8%
45-54						
1986	236,227	779,420	156,732	21,829	218,293	1,412,501
2001	398,153	1,303,705	261,343	37,465	396,626	2,397,292
change	+161,926	+524,285	+104,611	+15,636	+178,333	+ 984,791
%	+ 68.5%	+ 67.3%	+ 66.7%	+ 71.6%	+ 81.7%	+ 69.7%
55-64						
1986	481,788	389,944	107,138	22,276	325,866	1,327,012
2001	595,938	481,358	132,381	27,704	415,030	1,652,411
change	+114,150	+ 91,414	+ 25,243	+ 5,428	+ 89,164	+ 325,399
%	+ 23.7%	+ 23.4%	+ 23.6%	+ 24.4%	+ 27.4%	+ 24.5%
65-74						
1986	451,780	100,385	49,201	10,684	409,188	1,021,238
2001	584,771	129,095	63,172	13,801	550,497	1,341,336
change	+132,991	+ 28,710	+ 13,971	+ 3,117	+141,309	+ 320,098
%	+ 29.4%	+ 28.6%	+ 28.4%	+ 29.2%	+ 34.5%	+ 31.3%
75+						
1986	196,649	19,645	28,417	3,241	351,458	599,410
2001	336,376	33,260	48,072	5,503	632,859	1,056,070
change	+139,727	+ 13,615	+ 19,655	+ 2,262	+281,401	+ 456,660
%	+ 71.1%	+ 69.3%	+ 69.2%	+ 69.8%	+ 80.1%	+ 76.2%
Total						
1986	2,130,885	3,604,005	802,916	97,140	2,356,619	8,991,565
2001	2,661,039	4,557,142	1,013,271	128,409	3,276,085	11,635,946
change	+530,154	+953,137	+210,355	+31,269	+919,466	+2,644,381
%	+ 24.9%	+ 26.4%	+ 26.2%	+ 32.2%	+ 39.0%	+ 29.4%

THE RENTER POPULATION IN 2001
A POSSIBLE FUTURE

The first two chapters of this report have shown that the socio-economic profile of renter households - especially the extent of affordability problems - is correlated with demographic variables (with household types and age groups). The demographic variables may have some power in explaining and predicting the socio-economic characteristics of renters. In this chapter, a "base case" scenario will be developed for the future affordability conditions of renter households in the year 2001. Factors developed from 1986 data will be applied to the projections of future renter households (which were shown in the previous chapter). The result will be projections for the year 2001 of the income ranges of renter households, required rent ranges of the future rental housing stock, the incidence of affordability problems, and the size of the aggregate affordability gap. In order to isolate the effects of demographic change alone, the scenario presented in this chapter makes a very strong assumption that the economic circumstances of each renter age-household type sub-group will be the same in 1986 and 2001. This assumes that for each cohort real incomes and the supply of rental housing will be distributed identically in the two periods.

Events which occurred during 1981 to 1986 suggest that projecting using demographic methods is a hazardous business. Until the 1986 Census results became available it had seemed that demographic trends were reliable and predictable: headship rates would continue to rise into the foreseeable future, just as they had since the Second World War; a tenure shift towards homeownership housing would continue. The 1986 Census results upset these certainties. The aggregate headship rate rose between 1981 and 1986, but it fell for the population under 35 years of age. The tenure shift towards homeownership was reversed, and especially so for households whose maintainer was aged less than 45 years. Adding an economic dimension to demographic projections compounds the hazards. Between 1981 and 1986, the affordability of rental housing deteriorated for virtually all household types-age group cohorts of renters, as average rents increased in real terms and distributions of incomes fell in real terms for the majority of cohorts. In order to confidently project housing demand and housing affordability with demographic methods, the analyst needs to have some confidence that the demographic trends are, at least, relatively stable, or, if not stable, then predictable. Given the demographic and economic events of 1981 to 1986, it requires great heroism to be confident about the reliability of long term projections.

In presenting projections in this and the following chapter, I am not aspiring to be a latter day Don Quixotte. It is useful to create a scenario (or scenarios) for the future, in order to separate and illustrate the effects of underlying factors and to consider the potential future consequences of those factors.

In order to develop the projections contained in this chapter and the next one, it was necessary to link two databases from the 1986 Census. The two databases use different definitions of household type and they cover slightly different populations. Therefore, the numbers and distributions of households shown in Chapters 1 to 4 differ from those shown in Chapters 5 to 7. A brief note (Note 6.1) describes the differences in the databases and the method used in developing the projections shown in this chapter and Chapter 7.

The Base Case Projection

In this chapter and the following one, it is assumed that for each age-household type cohort, income distributions will be the same in 2001 as in 1986 (in 1985 constant dollars). The consequences of this assumption are shown in Table 6-1. Because more households will be headed by older persons in 2001 and because more households will be the non-family type, the assumption implies a downward shift in the distribution of real incomes of renters. The proportion of renter households having incomes between $1 and $11,999 (in 1985 dollars) rises from 30.8 percent in the 1986 Census to 32.2 percent by the 2001 Census. The proportion earning $20,000 per year or more falls by 1.4 percentage points.

TABLE 6-1
DISTRIBUTION OF RENTER HOUSEHOLD INCOMES IN THE
1986 CENSUS (1985 INCOMES) AND 2001 CENSUS (2000 INCOMES)
IN 1985 CONSTANT DOLLARS

	Nil (1)	$1-7999	$8,000-$11,999	$12,000-$19,999	$20,000-$27,999	$28,000-$39,999	$40,000 Plus	Total
1986								
No.	45,833	543,621	498,308	658,225	553,566	587,516	496,207	3,383,277
%	1.4%	16.1%	14.7%	19.5%	16.4%	17.4%	14.7%	100.0%
2001								
No.	59,482	690,784	666,164	823,024	667,409	696,888	606,344	4,210,095
%	1.4%	16.4%	15.8%	19.5%	15.9%	16.6%	14.4%	100.0%

Source: Estimates by the author.

Notes: Totals may not add due to rounding. Total shown may vary from actual household total due to rounding during calculations.
(1) Includes negative incomes.

Table 6-2 shows that if each cohort maintains its 1986 choices in terms of rents, then 31.5 percent of the growth in demand for rental housing will be in the lowest rent range (less than $300 per month in 1986 dollars) and 44.1 percent will be in the moderate range ($300 to $499 per month). Approximately one-sixth (15.6 percent) of the growth in demand will be for units with above-average rents ($500 to $699 per month). Only 8.7 percent of the growth in demand will be for high rent housing ($700 per month and over).

TABLE 6-2
POTENTIAL AND ACTUAL DEMAND FOR RENTAL HOUSING
BY RENT RANGE, 1986 AND 2001
IN 1986 CONSTANT DOLLARS

Year	Under $300	$300 to $499	$500 to $699	$700 and Over	N/A (1)	All Rent Levels (2)
1986	897,578	1,677,304	559,178	242,547	6,664	3,383,271
2001	1,157,872	2,041,589	688,249	314,474	7,893	4,210,077
Change						
- Number	260,294	364,285	129,071	71,927	1,229	826,806
- % ch.	29.0%	21.7%	23.1%	29.7%	18.4%	24.4%
- As % of total increase	31.5%	44.1%	15.6%	8.7%	0.1%	100.0%

Source: Estimates by the author.

Notes: (1) Rent is recorded as N/A.
(2) Total shown may vary from actual household total due to rounding during calculation.

Table 6-3 shows that, as a result of demographic change alone, the percentage of households having rent-to-income ratios of 30 percent and over has the potential to rise by 0.6 percentage points (from 35.0 percent to 35.6 percent) between 1986 and 2001. The total number of renter households with rent-to-income ratios of 30 percent and over could rise by 315,000 (an average increase of 21,000 households per year) to a total of 1.5 million by 2001.

TABLE 6-3
1986 ACTUAL AND 2001 POTENTIAL RENT-TO-INCOME RATIOS,
NUMBER AND PERCENTAGE DISTRIBUTION

Year	30.0% or Less	30.1% to 49.9%	50% to 99.9%	100% or More	N/A (1)	Total (2)
1986						
No.	2,146,515	611,839	354,292	218,825	51,843	3,383,313
%	63.4%	18.1%	10.5%	6.5%	1.5%	100.0%
2001						
No.	2,644,059	786,384	451,961	261,507	66,238	4,210,149
%	62.8%	18.7%	10.7%	6.2%	1.6%	100.0%

Source: Estimates by the author.

Notes: (1) Rent is recorded as not applicable, or income is zero or negative.
(2) Total shown may vary from actual household total due to rounding during calculation.

In this base case scenario, the incidence of affordability problems rises marginally. However, because the total number of households with affordability problems rises by 315,000, the total affordability gap has the potential to rise by $700 million in 1986 dollars.

TABLE 6-4
POTENTIAL AND ACTUAL AFFORDABILITY GAPS,
1986 AND 2001
IN 1986 DOLLARS

Year	1986 Dollars	Percent Change
1986 Actual Total Gap	$ 2,777.7 M	--
2001 Potential Total Gap	$ 3,484.1 M	25.4%

Source: Estimates by the author.

Potential Changes in Affordability, by Age Group

Demographic changes between 1986 and 2001 will likely have the effects which were predicted in the first and second chapters: the incidence of affordability problems increases slightly (from 35.0 percent to 35.6 percent). However, due to the aging of the population there will be a shift in the make-up of the problem population.

For many younger renter households (especially those with maintainer aged less than 25 years), affordability problems may be seen as transitory, in that their economic circumstances will improve in later years as they become mature members of the work force. For many of these younger households, future prospects may include becoming a homeowner. Table 2-8 in Chapter 2 showed that there is a high incidence of affordability problems in this age group but that the incidence is reduced sharply after age 25. For older renter households (especially those aged 55 and over) affordability problems increase and they are more likely to be permanent conditions, as there is less likelihood that future incomes will improve or that they will become homeowners. In this sense, it may be that an affordability problem among an older household is of greater concern than an affordability problem for a younger household, particularly a younger household without dependent children.

Between 1986 and 2001 there is anticipated to be a shift in the demographic composition of households which have affordability problems, as is shown in Table 6-5. The share of affordability problems made up by younger households (under 35 years of age) falls by 10 percentage points. Increases in shares are mainly seen for the 35 to 54 and 75 years and over age groups. In two senses there is anticipated to be a greater incidence of affordability problems in 2001 than in 2001: the incidence of problems is expected to increase from 35.0 percent to 35.6 percent; among those renter households with affordability problems more of the problems will be "permanent" in 2001 compared to 1986. This assumes, of course, that the future elderly will have the same characteristics as the current elderly, which is far from certain. It is conceivable that the future elderly could be better off, to the extent that their life-time earnings have been higher in real terms and to the extent that private pensions have been improving. How these broad

trends, which affect the elderly as a group, will apply to the elderly who rent is a complex question. To the extent that the economy is becoming more polarized into "good jobs, bad jobs" and that economic change is resulting in some involuntary early retirements, not all of the elderly will share in the "golden years". These issues call for much more research.

TABLE 6-5
PERCENTAGE DISTRIBUTION OF HOUSEHOLDS WITH
AFFORDABILITY PROBLEMS, BY AGE OF HOUSEHOLD MAINTAINER
1986 AND 2001

Age of Maintainer	Actual 1986	Potential 2001	Change in Percentage Points
15-24	17.0%	13.2%	- 3.8
25-34	26.4%	20.3%	- 6.2
35-44	15.5%	17.0%	+ 1.5
45-54	9.2%	12.7%	+ 3.5
55-64	10.3%	10.4%	+ 0.0
65-74	11.6%	12.4%	+ 0.8
75+	10.0%	14.1%	+ 4.2
Total	100.0%	100.0%	nil

Source: Estimates by the author.

Note: Percentage point changes may not add due to rounding.

The age group with the largest increase in affordability problems is the 75 years and over group. Since 75 is considered to be the age at which the ability to live independently begins to decline, there is a prospect of a large and rapidly growing group of elderly who suffer serious hardship from combinations of low incomes, housing affordability problems, and needs for support services (including, for a minority, needs for institutional care).

Projected Changes for 1986 to 2001 Are Minor Compared to 1981 to 1986 Actual Change

The potential increase in the number of renter households with affordability problems during the 15 years from 1986 to 2001 period averages 21,000 per year, which is substantially less than the actual average of 44,000 per year during 1981 to 1986, as Table 6-6 shows. Similarly, the potential growth in the affordability gap during 1986 to 2001 is $47 million per year) in 1986 dollars, compared to actual growth of $140 million per year during 1981 to 1986. As has been stated, the 1981 to 1986 changes were due to a combination of changes in demographics, rents, and incomes. The 1986 to 2001 projections consider only demographic factors. Obviously, any changes in future incomes and rents would significantly affect actual events.

TABLE 6-6
AVERAGE ANNUAL CHANGES IN RENTAL HOUSING AFFORDABILITY PROBLEMS
1981 TO 1986 AND 1986 TO 2001

Period	Average Annual Growth in Affordability Problems: Households With Problems	Total Affordability Gap, in $Millions
1981 to 1986 (Actual)	44,316	$140 M
1986 to 2001 (Potential)	20,953	$ 47 M

Source: Estimates by the author.

Rent Ranges

The projections of potential changes in affordability problems and the total affordability gap are tied to a third implicit projection, that the supply by rent range will expand as shown in Table 6-2. Most of the growth in demand is concentrated in the lowest and moderate rent ranges. However, Chapter 3 showed that between 1981 and 1986 there was a significant drop in the total stock of low rent housing (under $300 in 1986 dollars). Growth in the moderate rent range ($300 to $499) did no more than offset the losses in the lowest range. Therefore, all of the net growth in rental stock during 1981 to 1986 was in the higher rent ranges ($500 and over in 1986 dollars). Table 6-7 contrasts the 1981 to 1986 actual changes with the required 1986 to 2001 changes. The required change for 1986 to 2001 is clearly not consistent with actual experience from the 1981 to 1986 period. Because supply is unlikely to be forthcoming in the required rent ranges, the base case scenario which has been developed in this chapter is unlikely to occur. There is a need to develop a scenario based on a scenario of likely changes in real rents. That scenario is developed in the next chapter.

TABLE 6-7
POTENTIAL GROWTH IN DEMAND BY RENT RANGE, 1986 TO 2001
VERSUS ACTUAL GROWTH IN DURING 1981 TO 1986 (1)

Period	Under $300	$300 to $499	$500 to $699	$700 and Over	N/A (2)	All Rent Levels (3)
1981 - 1986						
Actual Ch.	-272,492	+271,599	+174,853	+67,991	-2,652	+239,299
Yearly Avg.	- 54,498	+ 54,320	+ 34,971	+13,598	- 530	+ 47,860
1986 - 2001						
Required Ch.	+260,294	+364,285	+129,071	+71,927	+1,229	+826,806
Yearly Avg.	+ 17,353	+ 24,286	+ 8,605	+ 4,795	+ 82	+ 55,120

Source: Estimates by the author.

Notes: (1) In 1986 constant dollars.
(2) Rent is recorded as N/A.
(3) Total shown for 1986 to 2001 may vary from actual household total due to rounding during calculations.

Summary and Conclusion

This chapter has developed a base case scenario for changes in the economic profile of renters between the years 1986 and 2001. The potential incidence of affordability problems is projected ("problem" being defined as paying more than 30 percent of income on gross rent). The scenario is for a slight increase in the incidence of affordability problems (from 35.0 percent of all renter households to 35.6 percent) and a relative shift in the composition of households away from those for whom problems may be transitory (the young) towards those for whom the problems are more permanent (the middle age group and the elderly). The total number of renter households with affordability problems rises by 315,000 to 1.5 million, an average increase of 21,000 per year. The total affordability gap for all renter households rises by $700 million, to almost $3.5 billion in 1986 dollars.

The scenario portrayed in this chapter depends critically upon the availability of supply in the rent ranges indicated in Table 6-8. The projected requirements are inconsistent with actual experience during 1981 to 1986. Also, in Chapter 4 it was concluded that changes in the factors affecting rental housing supply will put upward pressure on real rents in order that the private market can generate new supply, and may increase pressure for conversion of rental housing to other uses (homeownership or non-residential). Secondly, Chapter 3 expressed uncertainty concerning the future of some of the existing supply of government-subsidized rental housing. Therefore, the scenario presented in this chapter is not a plausible future with respect to the affordability of rental housing. The next chapter develops an alternative.

A PLAUSIBLE ALTERNATIVE
THE AFFORDABILITY OF RENTAL HOUSING IN 2001

The previous chapter showed a possible future for the renter population in the year 2001. It was based on an assumption that for each age-household type sub-group of the renter population the distributions of incomes and rents would be the same in real terms in the year 2001 as in 1986. In aggregate terms, this scenario requires a large expansion in the stock of modest housing. It was concluded that the "possible" scenario is unlikely to occur, based on past changes in the rent ranges of available rental housing and on past increases in real rents. Furthermore, a review of factors which will affect the supply and rents of rental housing in the 1990's concluded that rents are likely to continue to increase in real terms between 1986 and 2001.

Past Changes in Rents for Available Housing and Increases in Real Rents

Chapter 3 showed that between 1981 and 1986, all of the net growth in the rental housing stock was in rent ranges of $500 per month and over (in 1986 constant dollars), and that average rents increased by 3.5 percent in real terms. In the first half of the 1980's, a negative environment resulted in low investment in rental housing and reduced vacancy rates. The undersupply situation put upward pressure on real rents. The real increase in average rents was not unique to the 1981 to 1986 period. Average rents also rose in real terms during the 1970's. During the 1970's, rents for "constant quality" housing apparently fell in real terms. However, there was a substantial amount of investment in new rental housing during the decade and, furthermore, there was a high rate of attrition for older, low rent housing. Therefore, the quality of the rental housing stock was far from "constant" during the 1970's. The quality level most likely increased. Even if rents for "constant quality" housing fell, the reality is that rising standards resulted in a 10.5 percent real increase in average rents.

Chapter 2 showed that the increase in real rents was a significant factor in the large growth in affordability problems between 1981 and 1986.

Prospects for Real Rents During 1986 to 2001

A review of supply side factors in Chapter 4 concluded that the rental housing will become less attractive as an investment option in the 1990's.

- Successive tax reforms have reduced opportunities to use investments in rental housing as tax shelters, and have reduced after-tax rates of return.

- Expectations concerning capital gains for real estate may soften, thus reducing expectations about profitability of rental housing investments.

In order to attract investment to the rental housing market, rents will have to increase in real terms during the 1990's. Chapter 4 concluded that it is plausible that during 1986 to 2001, rents will rise in real terms at the same rate as they did during 1981 to 1986: +0.7 percent per year. This amounts to a 10.8 percent increase in real rents during the 1986 to 2001 period.

This chapter presents affordability projections for the year 2001, assuming that monthly rents increase by $46.50 (in 1986 constant dollars). Rather than increasing 1986 rents by the same percentage rates, all rents were increased by the same dollar

amount, to reflect that pressures for real rent increases are expected to be greatest at lower rent levels. As in Chapter 6, the approach used assumes that for each cohort income distributions will be the same in 2001 as in 1986.

Chapter 2 showed that between 1981 and 1986, changes in economic variables (real incomes and real rents) overwhelmed the influence of demographic change on affordability conditions of Canada's renter households. The projections shown below for a "plausible scenario" suggest that an increase in real rents could cause this to repeated in 1986 to 2001.

The Plausible Scenario - Rent Ranges for Occupied Housing

Table 7-1 shows the result of the key assumption used in this chapter, that real rents (in 1986 dollars) will be $46.50 per month higher in 2001 than in 1986. The growth in occupied rental units is concentrated in the middle rent ranges. The lowest rent range (under $300 per month in 1986 dollars) is essentially unchanged in size. The moderate rent range ($300 to $499 per month) expands by over 400,000 units (28,000 per year). Higher rent ranges ($500 per month and over) also expand by over 400,000 units.

TABLE 7-1
RENT RANGES FOR OCCUPIED HOUSING
1986 AND 2001, IN 1986 CONSTANT DOLLARS

Census Period	Under $300	$300 to $499	$500 to $699	$700 and Over	N/A (1)	All Rent Levels (2)
1986						
No.	825,684	1,652,255	626,141	272,544	6,664	3,383,288
%	24.4%	48.8%	18.5%	8.1%	0.2%	100.0%
2001						
No.	812,722	2,068,718	920,826	399,996	7,893	4,210,156
%	19.3%	49.1%	21.9%	9.5%	0.2%	100.0%
Change 1986-01	-12,962	+416,463	+294,685	+127,452	+1,229	+826,818

Source: Estimates by the author.

Notes: (1) Rent is recorded as not applicable.
(2) Total shown may vary from actual household total due to rounding during calculations.

The Incidence of Affordability Problems

Table 7-2 shows the combined effects on the incidence of housing affordability problems in the year 2001 of a $46.50 real increase in monthly rents plus demographic change. The total number of renter households with rent-to-income ratios of 30 percent and over could rise by 673,000 (an average increase of 45,000 households per year) to a total of 1.86 million by 2001. The percentage of households having rent-to-income ratios of 30 percent and over could rise by 9.1 percentage points (from 35.0 percent to 44.1 percent) between 1986 and 2001.

Chapter 6 showed that demographic change alone could cause a 315,000 increase in the number of renter households with affordability problems. The real rent increase could add a further 358,000 households to the number of renters with affordability problems.

TABLE 7-2
POTENTIAL AND ACTUAL RENT-TO-INCOME RATIOS
NUMBER AND PERCENTAGE DISTRIBUTION, 1986 AND 2001

Year	30.0% or Less	30.1% to 49.9%	50% to 99.9%	100% or More	N/A (1)	Total (2)
1986						
No.	2,146,515	611,839	354,292	218,825	51,843	3,383,313
%	63.4%	18.1%	10.5%	6.5%	1.5%	100.0%
2001						
No.	2,286,064	991,489	568,893	297,491	66,238	4,210,175
%	54.2%	23.5%	13.5%	7.1%	1.6%	100.0%

Source: Estimates by the author.

Notes: (1) Rent is recorded as not applicable, or income is zero or negative.
(2) Total shown may vary from actual household total due to rounding during calculations.

Chapter 6 indicated that composition of problem households would shift between 1986 to 2001, towards households for whom affordability problems are likely to be more permanent (older age groups) and away from the younger age groups for whom they are transitory. This shift is worsened in the plausible scenario, as is shown by the data in Table 7-3. Renter households with a maintainer aged 55 years of age and over could account for 40.9 percent of affordability problems in 2001, higher than the 36.9 percent in the (unlikely) base case scenario for 2001 and the actual 31.9 percent in 1986. In these older age groups, unlike the younger age groups, most renters cannot look forward to a future of improving economic prospects or to a future move into homeownership.

TABLE 7-3
NUMBERS OF RENTER HOUSEHOLDS WITH
AFFORDABILITY PROBLEMS, BY AGE OF HOUSEHOLD MAINTAINER
1986 AND 2001

Age of Maintainer	Actual 1986 Number	% of Total	Potential 2001 (1) Number	% of Total	Potential 2001 (2) Number	% of Total
15-24	201,137	17.0%	197,343	13.2%	222,737	12.0%
25-34	313,343	26.4%	303,975	20.3%	359,402	19.3%
35-44	183,487	15.5%	255,112	17.0%	295,354	15.9%
45-54	108,707	9.2%	189,910	12.7%	221,074	11.9%
55-64	122,569	10.3%	155,375	10.4%	190,701	10.3%
65-74	137,779	11.6%	186,151	12.4%	256,812	13.8%
75+	117,934	10.0%	212,087	14.1%	311,791	16.8%
Total	1,184,956	100.0%	1,499,852	100.0%	1,857,873	100.0%

Source: Estimates by the author.

Notes: Percentage point changes may not add due to rounding.
(1) Assuming that rents are constant in real terms. (Base case).
(2) Assuming that monthly rents in 2001 are higher by $46.50 (in 1986 constant dollars) compared to 1986. (Plausible scenario.)

Affordability by Income Range

Increases in real rents have the greatest impact on affordability problems for those with the lowest incomes. Well over half (62.6 percent) of the increase in affordability problems between 1986 and 2001 (in the plausible scenario) is among households with incomes under $12,000 (1985 dollars). Only 2.6 percent of the increase in affordability problems is among households with incomes of $28,000 per year and over.

TABLE 7-4
THE INCIDENCE OF AFFORDABILITY PROBLEMS BY INCOME RANGE
AMONG RENTER HOUSEHOLDS, 1986 AND 2001
(INCOME IN 1985 CONSTANT DOLLARS)

	Nil (1)	$1-7999	$8,000-$11,999	$12,000-$19,999	$20,000-$27,999	$28,000-$39,999	$40,000 Plus (2)	Total
1986								
%	N/A	89.6%	67.9%	41.1%	11.9%	3.7%	0.0%	35.0%
2001								
%	N/A	97.2%	86.4%	55.5%	17.0%	5.4%	0.3%	44.1%

Source: Estimates by the author.

Notes: (1) Rent-to-income ratio cannot be calculated as income is zero or negative.
(2) Maximum rent recorded in the 1986 Census PUST was $1000. Therefore, no households with incomes of $40,000 or more can have rent-to-income ratios of over 30 percent in 1986. In 2001, the maximum monthly rent is $1046.50. Households with incomes greater than $41,860 cannot have rent-to-income ratios of more than 30 percent.

While it is possible that increased real rents will result in some movement from rental to ownership tenure, it seems that tenure shifting will be limited. The greatest impacts on affordability are for the lowest income households, which have limited ability to become homeowners. Higher income renters, who may be more able to become homeowners, are less significantly affected by the increases in real rents and therefore relatively few of them may switch tenures as a result. Even if significant numbers of higher income renters (with incomes of $28,000 per year and over in 1985 dollars) decide to move to homeownership, the impact on the total number of affordability problems would be negligible, since the projections show that among renter households with incomes of $28,000 or more, only 40,000 will have affordability problems in 2001.

Affordability Gaps

In this scenario, the total affordability gap for all renter households in 2001 could rise substantially - to almost $4.5 billion in 1986 constant dollars. This is $1.68 billion higher than in 1986. It is also $1 billion greater than in the unlikely base case projection, which was shown in the previous chapter.

TABLE 7-5
POTENTIAL AND ACTUAL AFFORDABILITY GAPS
1986 AND 2001

Year	1986 Dollars	Percent Change
1986 Total Gap	$ 2,778M	--
2001 Total Gap	$ 4,455M	60.4%

Source: Estimates by the author.

Summary and Conclusion

This chapter has developed a "plausible scenario" for changes in affordability problems during 1986 and 2001, combining anticipated demographic changes with an assumption that monthly rents are $46.50 higher in real terms (1986 dollars). It is also assumed that for each age-household type subgroup of the renter population, income distributions are unchanged in constant dollars. The number of households with affordability problems increases by 670,000 and the incidence of affordability problems increases by 9.1 percent points. The total annual affordability gap in the year 2001 rises by $1.68 billion to almost $4.5 billion (in 1986 dollars).

The status quo assumption for renter incomes is a strong assumption and it will no doubt be incorrect. Whether renters' incomes will increase or decrease in real terms is impossible to predict.

While these sorts of projections are risky, they tell a cautionary tale. They indicate a possibility of very significant increases in renter affordability problems between 1986 and 2001. Equally important, they clearly indicate that there will be change in the composition of households with affordability problems. It appears inevitable that irrespective of changes in the total number and severity of affordability problems, problems will become more concentrated among older households. These households have most of their education, work, earning histories, and wealth creation years behind them. Unlike younger age groups, their individual economic and housing circumstances are unlikely to improve as the age, and they are less likely than younger age groups to share in the benefits of any future economic growth.

DO RENT CONTROLS MATTER?

In some areas of the country, especially in a few large urban centres (most notably Toronto and Vancouver), one of the most contentious issue in housing policy is that of rent control. Readers from those few centres will be surprised (and quite possibly unbelieving) that in most of Canada, the subject of rent control has a low profile as a housing issue.

This chapter briefly summarizes current views and then presents some new ideas on the topic.

Two Camps - For and Against

In those areas where rent control is an issue, views for and against are highly polarized, and because the issue is approached from very different perspectives there is little prospect of finding consensus.

In the pro-rent control camp, the issue is generally seen as one of social justice and rent control contributes to social development. William T. Stanbury and John D. Todd (who are not fans of rent control, to be sure, since they offer a counter-argument for every pro-control argument) provide a very good summary of the pro-control point of view (1990a: pp. 21-44).

- Control prevents gouging by landlords.
- They limit (or prevent) redistribution of income from tenants to landlords.
- They ensure that there is a supply of rental housing which is affordable to low and moderate income people.
- They increase security of tenure by preventing economic eviction, which could otherwise occur through discriminatory rent increases.
- They increase economic efficiency by slowing the rate at which rents adjust to periods of excess demand (thereby helping to prevent over-building).
- They maintain diversity of central urban areas by protecting the stock of low rent housing.

The anti-control camp bases its arguments in economic theory.

- If the price of rental housing is held below its equilibrium level, shortages will result: supply (investment) is discouraged but demand is increased.
- Maintenance will be reduced (because profits are reduced and landlords will not be able to afford to do it or will see that there is no reward for it, or because the reduction in competition means that they can maintain full occupancy without doing any maintenance).
- A black market may result: landlords will demand under-the-table payments, sometimes known as "key money", from tenants so that the effective cost of the housing is the same as it would otherwise have been.

- Because rent control makes investment more risky than it would otherwise have been, required rates of return will be increased, which means that the equilibrium rent level is higher: rent control could, paradoxically, result in rents which are higher than they would be in the absence of control.

- Ultimately rent control is counter to the interests of both landlords and tenants.

A social development dimension is added to the anti-control argument by stating that since supply is suppressed by rent control, social development is hindered rather than helped by rent control.

- Because there is more demand than supply, landlords can become more choosy about who they accept as tenants. Families and those with low incomes may be seen as more risky or less desirable than childless and high income tenants. The disadvantaged may be forced to live in higher cost, low quality housing, which is unattractive to the "desirable" tenants. This will be referred to later as the "rationing effect".

"If Rent Controls Are So Harmful..."

The following passage is a fantasy in that it assumes that the two sides are actually talking to each other. Even when the sides are talking to each other, which is a very rare occurrence, the event is best described as bilateral monologue rather than as dialogue. No common ground is ever found. No conclusions are ever reached.

"...Why aren't all markets in provinces with control catastrophically undersupplied and why aren't all markets in provinces without rent control in perfect balance and harmony?" Representatives of the pro-control camp can point to Montreal as an example of a rental market which is in balance in spite of decades of rent control: there are considerable volumes of rental housing starts, vacancy rates are high, rents are lower than in most other major centres, and rental increases are moderate. They can also point to Vancouver as a market which, in spite of 6 years without control, has a vacancy rate close to zero, has high rates of rent increases, and is (apparently) unable to generate new investment. The anti-controllers might respond to the Montreal example by saying "not all rent controls are created equally - some are not binding. Over the long run Montreal's landlords have been allowed to increase rents at the rates which the market has dictated: market forces have been allowed to operate. Furthermore, because the rules of the game are stable and well-known, developers perceive that there is low risk". The response to the Vancouver situation might be "rents have been chronically depressed as a result of the effects of close to a decade of rent control combined with a severe recession: rents are in the process of recovering and will soon be at levels sufficient to generate investment".

The pro-controllers might continue "if Ontario's rent control is the cause of the problem in Toronto, why is it that there are so many other urban centres in the province where the rental market is not a problem? Doesn't this prove that there is something other than rent control involved?"

The arguments are endless and irreconcilable, which is unfortunate for those who live in areas where rent control is a hot issue. However, the majority of us have the good fortune to live in other areas.

The "Viability Gap"

The chief evidence used by the anti-control camp is the low level of housing starts of purpose-built rental apartments. It is shown that apartment starts have been progressively reduced since the early 1970's and that most apartment starts are either condominiums (not purpose-built rental) or subsidized by government. The lack of investment is blamed on the "viability gap". It is shown that rents which a landlord can expect to earn from a new apartment are considerably lower than costs would be (for mortgage payments, utilities, operating expenses, and property taxes): the prospective landlord would be unable to earn a reasonable profit on his investment, in fact he would lose money - the opportunity to lose money does not normally inspire investment. The "viability gap" between costs and rents is the "smoking gun" which "proves" that rent control has destroyed the incentive to invest and wrought havoc in housing markets.

The above argument has been the essence of scores of anti-rent control studies from academics and consultants and of subsequent newspaper articles and editorials.

This viewpoint is naive, in that the problem of negative cash flows began well before the advent of rent control. Table 4-1, which was taken from a study of Cadillac Fairview Corporation, showed that the positive cash flows which could be expected during the 1960's weakened during the early 1970's and were just barely positive by 1972. By 1976, there were large negative cash flows. In most provinces rent control was only introduced during 1974 to 1975 and rent control does not explain the weakening of cash flows early in the 1970's. It is also questionable that they were effective enough to cause large negative cash flows by 1976.

There is a more satisfying interpretation of the causes of negative cash flows. Recalling and building on the data and analysis from Chapters 3 and 4 leads to another view of the performance of Canada's rental markets and of the relative importance of rent control.

A New Point of View

Beginning in the early 1970's, increases in inflation resulted in higher interest rates. Inflation also resulted in greater rates of appreciation of real estate values. Thus inflation changed the nature of returns which could be earned by investors in the rental market and elsewhere. In the 1960's, profits were in the form of annual cash flow dividends; in the 1970's and 1980', investors could expect negative cash flows in the early years of the investment which were offset by positive cash flows in later years plus capital gains when the property was sold. This change in the nature of returns did not meet the needs of corporate investors, who required positive cash flows in order to finance growth: the fact that the greatest component of earnings (capital gains) could only be realized by selling properties would subvert a corporation's objective of growth. The changed returns, however, were appropriate to a different set of investors - individuals, partnerships, and small privately-owned companies, especially to high income individuals who were attracted by the opportunity to use rental housing to defer taxes.

Individual investors can be divided into two categories.

- Those who intend to hold their properties for long periods of time for long-term profits and capital gains. They often view a rental housing investment as a retirement fund.

- Those who are concerned with tax sheltering in the short-term. They may pay little attention to investment fundamentals of market conditions and growth potential.

Anecdotal information indicates that both categories of investor are active in major markets across the country.

Corporate investors were most likely to invest in large projects, whereas individual investors would prefer small-scale investments. Therefore, the reduction in starts of purpose-built rental apartment buildings can be attributed to decisions of real estate corporations to quit investing (in fact, often to withdraw entirely from the rental housing market).

Opponents of rent control will certainly agree that corporations have exited the rental market. However, it seems that they have not linked this exit to increased investment from small investors. Chapter 3 showed that there were very substantial volumes of unsubsidized investment in rental housing during the 1970's, in spite of the reductions in investment by corporations and in spite of reduced starts of unsubsidized high density purpose-built rental apartments. While investment lagged during the early 1980's, it apparently resumed in the late 1980's. Even though there was very little corporate investment in rental housing in the late 1980's, individuals invested by purchasing, with the intention of leasing, low density housing (usually existing housing) and high rise condominiums, and by purchasing partnership shares in syndicated projects.

This is especially applicable to Toronto. It is clearly recognized by observers in Toronto that individual investment in rental housing in low density housing plus high rise condominiums was "hot" in the late 1980's. But, few of them have been able to square this realization with the long-lasting perception that rental investment is dead. It is important to be clear that individual investment counts just as much as purpose-built corporate investment and that individual investment is now the mode. In the second half of the 1980's the number of rented condominiums in the Toronto area grew by 20,000 units, indicating that at least $2 billion was invested in the Toronto rental market through investor-owned condominiums. The amount invested in low and medium density rental housing is unknown.

It is also important to acknowledge that individual investors have not provided enough investment to result in a balanced rental market in Toronto. The causes for this are debatable. There are at least three factors involved.

- It may be that the shortfall is temporary but will be alleviated when economic growth slows in future: in spite of rapid expansion of supply, demand is so strong that shortages are inevitable in the short-term.

- Rent control may be delaying (but not necessarily preventing) an adjustment of rents to "market-clearing levels". (This will be discussed at more length in the section "Not all Rent Controls Are Created Equally".)

- Demand for rental housing is mostly in areas (central and inner-suburban) where high land values dictate that any new development (residential rental,

homeownership, and non-residential) must be in high density forms. High density rental development cannot easily be provided by individual investors (except through purchase of individual units, partnership shares in syndications, or, for a few very wealthy individuals and families, sole ownership in high density projects). Because of a preference for low and medium density properties, most individual investments would have to be in existing properties, but the existing physical configuration of central and inner-suburban Toronto results in limited and insufficient opportunities for rental investment in existing low and medium density housing, and, as Chapter 4 argued, regulations result in an unlevel playing field where homeownership uses have an advantage over rental housing. Therefore, individual investors will be chronically unable to provide enough supply to satisfy demand. Establishment of "equilibrium" would require that corporate investors return to the rental market. Because corporate investors are chiefly concerned with cash flows, rents would have to increase significantly in order to provide attractive cash flows in the short-term. Total long-term returns (including long-term cash flows and capital gains) would be very high.

Vancouver's present situation is comparable to Toronto's, with the exception that it does not presently have rent control. Its current difficulties are due to a combination two of the three factors suggested for Toronto.

- A lagged adjustment of supply during a period of very high growth in demand.

- A chronic shortage of appropriate existing low and medium density real estate, so that individual investors have not been unable to fully replace the corporate investors who withdrew their attentions from rental housing when inflation changed the nature of returns. How high rents will have to rise in Vancouver to attract corporations back to the rental market is an unknown.

Montreal is the antithesis to Toronto and Vancouver. In Montreal there is relatively little high density rental housing and land values permit construction of new low and medium density development in good locations. According to Canada Mortgage and Housing Corporation's Rental Market Survey, the average size of privately-owned rental apartment buildings in Montreal is 13.4 units, compared to 56.5 units in Toronto and 31.0 units in Vancouver. (To permit comparison the figures are for buildings containing six or more units.) Because density and land values do not constrain development, the Montreal rental market is in balance and market forces have operated in spite of the existence of a moderate form of rent review.

Montreal provides a better model for Canada's rental markets than do Toronto or Vancouver (and some other unbalanced markets, which are mainly in southern Ontario). For the most part Canada's rental markets seem to have reasonable balance between supply and demand, whether or not rents are controlled. Those markets in which high density housing provides a sizeable share of the rental stock are much less in balance than are markets where low and medium density rental housing is the norm. This was demonstrated in Figure 3-1 in Chapter 3, which showed a relationship between vacancy rate and average structure size, for both controlled and uncontrolled markets. This correlation suggests strongly that the chief cause of insufficient supply in tight markets is not rent control, but rather the physical lack of low and medium density opportunities for individual investors.

There are exceptional cases of course. Edmonton and Calgary both have large high density stocks but are reasonably in balance. However, both were severely undersupplied during the early 1980's. During 1982 to 1985 a deep economic recession resulted in reduced demand, high vacancy rates, and falling rents. Both markets are now recovering in terms of demand, vacancy rates, and rents. To this point, the ability of these markets to generate supply in response to demand is untested. In the next few years both of these markets will demonstrate that they are similar to Toronto and Vancouver: because they have been relatively dependent on high density rental housing individual investors will be unable to generate sufficient supply and the markets will become highly-pressurized, as they were in the early 1980's. Vigorous debate on rent control can be expected.

London and Ottawa, Ontario are two other exceptions. These rental markets have traditionally relied on corporate investors and have average rental building sizes among the highest in the country. Yet, these markets have managed to stay generally in balance in recent years as the result of continuing corporate investment in high density housing. The investment has been for both syndication to individuals and for the builders' own portfolios. The corporate developer-landlords are family-owned. They are behaving as individuals rather than as corporations, albeit on a very large scale. They may be using negative cash flow and Capital Cost Allowances from new projects to reduce taxes on older properties.

The anti-control camp has another piece of evidence: the fact that corporate investors have turned their attentions to commercial real estate. Cash flows for commercial real estate are just as susceptible to rising interest rates as for rental housing. Doesn't this prove, they ask, that the argument about a changing nature of returns is specious, that rent control has made rental housing unprofitable and suffocated investment?

But, the fact that individual investors have not also migrated to commercial real estate (not en masse, anyway) is just as challenging, and suggests a need for more thought.

In rental housing, a good level of investment from individuals maintains competition in the market and keeps rents sufficiently low that corporate investors could not earn positive cash flows. But, if scale considerations prevent individual investment in commercial real estate and the bulk of investment comes from corporations, competition among those investors will result in an equilibrium in which rent levels satisfy their need for positive cash flows. Furthermore, tenants in the commercial sector have more ability to pay than do residential tenants and the commercial market can support high rents and very high profits. Landlord-tenant relations are much less regulated in the commercial sector than they are in the rental housing market and relations can be much less controversial and confrontational. The commercial market is much more attractive to corporate investors than is the residential rental market.

- Profits are higher.

- Landlords have fewer fears about the ability of tenants to pay the rent.

- Commercial tenants sign longer leases.

- And, the regulatory environment is friendlier to landlords in the commercial sector than the rental market, in terms of restrictions on rent increases and landlord-tenant relations.

So - Do Rent Controls Matter?

There are at least two possible evaluative criteria for rent controls. Pro-control advocates would argue that they matter and are effective in terms of protecting the affordability of rental housing. Anti-control advocates would argue that they matter and are destructive in terms of housing supply.

In most of the country, except for southern Ontario and southern British Columbia (and possibly some small submarkets in inner city areas in other provinces), rental markets seem to be reasonably balanced. This suggests that rent control has not been a binding constraint on rents and therefore has probably had very little effect on either affordability or housing supply.

However, it probably does matter in southern Ontario, and particularly in Toronto.

Two studies of Toronto have concluded that rent control has resulted in rents for controlled units being below what they would be in the absence of control and rents for uncontrolled units being higher than they would otherwise be.

- Nuri Jazairi (1983) found that after adjusting for quality differences, uncontrolled rents were 9 to 14 percent higher in 1982 than controlled rents.

- George Fallis and Lawrence B. Smith (1984), using a slightly different data set and a slightly different choice of "quality" variables found that uncontrolled rents were between 14 to 27 percent higher than controlled rents. They concluded that controlled rents were 11 percent lower than they would be in the absence of control and uncontrolled rents were 10.3 percent higher than they would otherwise be.

Using the Fallis and Smith estimates of the effect of rent control on Toronto rents in 1982, the effect on affordability in 1986 is illustrated in Table 8-1. (Details on assumptions are provided in Note 8.1.) Using the assumptions provided by Fallis and Smith, it appears that rent control has prevented the incidence of affordability problems from rising slightly (by 3.4 percentage points) and the number of renter households with affordability problems from rising by 17,000.

TABLE 8-1
ESTIMATED IMPACT OF RENT CONTROLS ON
THE AFFORDABILITY OF RENTAL HOUSING
IN TORONTO CMA, 1986

	Renter Households with Affordability Problems	
	Number	Incidence
Actual	145,100	29.0%
Fallis-Smith No Control Scenario	162,300	32.4%
Difference	+17,200	+3.4 percentage points

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

(It should be noted that these estimates assume that there is no "rationing effect" (discussed on the second page of this chapter). If there is a rationing effect, then rent control has actually increased affordability problems for some low income and "high risk" tenants because shortages have forced them into the high rent non-controlled sector; in a no control scenario, rationing would not have occurred and affordability problems would be reduced to some degree by derationing.)

The fact that controlled rents are lower than they would be in the absence of control would tend to constrain supply. The fact that uncontrolled rents are higher (after adjustment for quality differences) confirms that supply is constrained. However, it is impossible to say by how much the supply has been reduced or how much rents would have to increase in order to achieve a balance between supply and demand.

Since there are serious physical constraints on investment opportunities, potential individual investors are not very able to respond to increased rents. Furthermore, since the main motivation of the individual investors is capital gains, not cash flow, rent levels and rent increases may have very little direct impact on investment: the main factor determining investment is expectations of capital gains. Rent increases could increase real estate values and thereby create expectations of future capital gains, but, recalling that individual investors prefer properties which are easily convertible to homeownership, values will be determined mainly in the homeownership market, not by rents. (Values of purpose-built high density rental housing, which is not convertible to homeownership, will be determined mainly by rent levels.)

Given the constraints on investment by individuals, equilibrium between supply and demand may only be achievable through the return of corporate investors to the Toronto rental market. A study by Clayton Research Associates (1984. pp. 26-30) estimated the rent increases which would be required in order to attract corporate investors. The study recognized that investment is motivated by short term cash flow (rather than by long term profitability, including capital gains). The Clayton study concluded that a 25 percent rent increase would be needed to bring corporate

investors back into the rental market. It should be noted that the study was based on averages for Canada: it is not clear if the required increase in Toronto would be similar. In order to more accurately predict what rent increase is required, it would be necessary to determine what rates of return corporations are earning from their commercial investments. Residential rents would have to be high enough to support similar rates of return. In fact, higher returns might be required, because of the corporations' concerns about present and future regulation of rents and landlord-tenant relations. If, however, commercial property markets became very soft and were expected to remain soft for some time, corporate investors might accept lower rates of return in the rental housing market in order to provide work for their development operations. The commercial real estate develoment boom of the second half of the 1980's has peaked and there are reports that commercial vacancy rates (retail and office) are rising and that rates of return are low. It remains to be seen if lack of opportunities in the commercial sector will cause corporations to re-examine the rental housing market.

Assuming that rents for controlled units increase by 25 percent (the Clayton Research Associates scenario) and that uncontrolled rents are unchanged, the impact on affordability is shown in Table 8-2. The number of renter households with affordability problems in the Toronto metropolitan area rises by more than 50,000 and the incidence of problems rises by more than 10 percentage points. (Details on the estimates are presented in Note 8.2.)

TABLE 8-2
ESTIMATED IMPACT OF 25 PERCENT RENT INCREASE (1)
ON THE AFFORDABILITY OF RENTAL HOUSING
IN TORONTO CMA, 1986

	Renter Households with Affordability Problems	
	Number	Incidence
Actual	145,100	29.0%
25% Rent Increase - Clayton Research Scenario	198,300	39.6%
Difference	+53,200	+10.6 percentage points

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape.

Note: (1) Increase in rents for units subject to rent review, based on 1985 definitions.

If policy makers decide that it is necessary to bring corporate investors back into highly-pressurized markets (such as Toronto), then they have to recognize that there is a high price tag in terms of increased affordability problems. However, whether or not any rental market could support a 25 percent rent increase is uncertain. Demand would certainly be reduced and supply from individual investors would increase to some extent: there may be very little (or no) requirement for corporate

investment. It is presumably the fear of impacts on affordability and the political consequences, combined with uncertainty about the supply/demand responses, that has deterred Ontario policy makers from pursuing the 25 percent solution.

Not All Rent Controls Are Created Equally

William T. Stanbury and John D. Todd (1990a. p. 85) suggest that systems of rent regulation can be categorized into three groups in terms of their effects on rents.

- Non-binding rent regulation: landlords can charge whatever the market will bear, even during periods of excess demand. Non-binding regulation can be used to prevent discriminatory rent increase, which landlords might otherwise use to economically evict or gouge tenants.

- Moderate rent regulation: results in rents that permit values of rental properties to be comparable to their values in alternative uses. Moderate regulation prevents economic eviction, overcharging of individual tenants, high rents during short term periods of shortages, and excessive long term profits.

- Restrictive rent regulation: allowed rents are low so that the value of rental property is less than its potential value in alternative uses.

They go on to state (p. 22) that "many forms of rent regulation cannot be said to be inherently moderate or restrictive. They can be moderate under certain economic conditions and restrictive in others." It is not just the rules of the game that matter, but the rules in relation to the context of the particular market at the particular point in time.

Most rental markets in Canada are reasonably balanced, as was shown in Chapter 3. Therefore, in most areas of the country, rent control is either non-binding or moderate. The exceptions, among areas which have rent control, are in southern Ontario - the markets which have been unable to adjust to the exit of corporate investors from rental markets.

In Ontario, rent control is verging on restrictive. It is not restrictive in all of southern Ontario or at all times. London Ontario, for example, was an undersupplied market in the mid-1980's but has since become balanced, with a vacancy rate of around 3 percent in 1989 and 1990. Vacancy rates throughout southern Ontario increased during 1989 and 1990, which suggests that the balance of investment incentives has improved.

Toronto's rental market has been undersupplied for a decade. In its context - a market which has traditionally relied on high density, corporate investment and which has not been able to generate sufficient investment from investors to replace the corporations - rent control has tended to be restrictive: "tended to" because pressures from the market have led to the opening of loopholes by which some, but certainly not all, owners of controlled buildings have managed to increase rents by more than the guideline rates.

In the early 1980's, the ability to pass on increases in financing costs due to purchase of a property created incentive for sales: knowing that they would be allowed to increase rents, purchasers attached a higher value to rental properties than did their owners.

In the late 1980's, the basis for pass through of capital improvements was very generous. This created an incentive for excessive renovation. (Rent control is not the sole cause of renovation in the Toronto rental market, or any other market. In Toronto and Vancouver there are similar pressures on the modest rental stocks - occurring through investor interest in renovation, demolition and replacement, and conversion to other uses. In both of these markets, increasing real estate values have created pressures to intensify land use through these means.)

These and other outlets have tended to limit the restrictiveness of rent control in the Toronto market. In the process, rent control distorts activity, which carries costs - transaction costs, costs of wasteful improvements, and then the costs of participating in rent review - that will undoubtedly be eventually passed on to tenants. And, as William Stanbury and John Todd point out (pp. 109-110), the complexity and costs of the system tends to discourage smaller landlords from applying for increases for which they would be eligible, with the result that tenants in similar accommodation can end up facing very different rents. As the system has become more and more complex, it has become less and less fair and effective at regulating rent increases. Some landlords are able to use the system very effectively to improve their profits. Some tenants find that rent review provides them with very little protection.

The One Percent Solution

Since we have a system which relies on the private, for-profit sector for investment in the rental housing market, the market must be given reasonable freedom to work and to set prices. If the market's price-setting system is unduly restricted for prolonged periods, two things will happen - and clearly these have happened in Toronto (although rent control is not the sole cause of the problems in Toronto, as the preceding sections have argued).

- The market is unlikely to find its equilibrium, resulting in shortages or black markets.

- Ways will be found around the restrictions, resulting in either the collapse of the regulations or the establishment of still more regulations, in an effort to close the loopholes.

This does not mean that rent regulation is inherently bad or doomed to inevitable failure. Rent regulation can play a role in protecting tenants against excessive rent increases. Furthermore, because the housing market is one of the most unstable sectors of the modern economy, rent regulation has a role to play in stabilizing the market and protecting tenants - who are generally-speaking the economically worst-off of the Canadian population - from the consequences of that instability.

Rent control can provide protection to tenants from the consequences of short-term instability. In the long-term, however, they are not an appropriate vehicle for improving housing affordability, at least not so long as the private sector is expected to provide new supplies.

The objective for rent control should be to moderate short-term increases during periods of excess demand, but without preventing rents from finding levels, in the long run, which encourage investment. This can be accomplished through a very simple formula, which William Stanbury and John Todd (1990b) proposed as a replacement for the current Ontario system.

- Rent review provisions (which allow landlords to apply for increases in excess of the guideline rate) should be discontinued.

- Instead, the guideline rate for rent increases should be increased to one percentage point more than the inflation rate.

This would allow rents to slowly move upwards in real terms, to the extent that the market permits. Over a prolonged period of time - the authors suggested a ten to fifteen year period - rents would reach levels at which the market functions and anomalies would be sorted-out. Once rents in a market reach a level that encourages sufficient investment, the allowable rate of increase would become non-binding and slower increases would be seen. Maintaining this formula on a permanent basis would provide continuing protection to tenants against the consequences of short-term market instability, but allow the market to adapt to long-term changes, over long periods of time. And, this system would not require "fine-tuning", or loophole closing. If short-term political pressures to tighten the rules can be resisted then landlords and potential investors will develop confidence that the rules-of-the-game are stable. Reductions in political risk would reduce target rates of return and encourage more investment. Because it would be very simple, the system would not favour large, sophisticated investors over small-scale landlords, unlike the current Ontario system of rent review.

The Stanbury-Todd article does not deal with renovation, and the necessity to allow cost pass-through for upgrading of substandard and obsolete rental housing. An exemption for renovation is required, but, recalling that generous treatment of capital expenditures has been an outlet in the current Ontario system, renovation should be treated ungenerously in the short-term, but full recovery of costs must be allowed in the long-term.

- For the purpose of calculating the annual cost of financing the expenditure, it should be assumed to be amortized over its longest reasonable life.

- The rate of increase due to renovation should be gradual, say a maximum of an additional 2 percentage points per year until the annual cost is fully passed on.

There would be no other exemptions from the guideline rate.

There is a difficult issue concerning markets like Toronto and Vancouver, where there are limited opportunities for individual investment and much higher rents are required to stimulate corporate investment. For Toronto it is not at all certain how high market rents might go before there is enough supply to moderate the rate of increase. Moderate rent review should be combined with continuous searching for creative approaches to encourage supply. Some suggestions are offered in Chapter 9.

Concluding Remarks

Chapter 4 argued that housing rents in Canada will have to increase, in order to generate supply in the changed environment of the 1990's. It indicated an order of magnitude. Chapter 7 illustrated the possible consequences - a very large increase in the incidence and magnitude of affordability problems among Canada's renters. The proposed approach to rent regulation would permit that increase to happen. It must be noted that some markets - those where individual investors are not currently providing enough supply - will have even greater increases than is assumed.

As a final note to those who fear any change to existing systems of rent control (or would like to see them become even more restrictive): in most of the country, the lack of concern over rent control plus market data indicate that rent control is not restrictive and there is little risk that this kind of approach would result in large rent increases. For a few high-pressure rental markets, the Stanbury/Todd approach is desirable. Accepting it requires a leap of faith. But, even in its worst case (an invisible ceiling for rents), it is less hazardous than the current discriminatory and leaking system: many tenants have seen much greater increases in real rents in one year under the current system than they would in a decade under the proposed approach, and many more live in fear of that prospect. The proposal offers, at the least, a softer path to an uncertain future.

POLICY MATTERS

Key Findings of this Study

Data from the 1986 Census showed that in 1986 1.15 million renter households in Canada paid more than 30 percent of their income for rent. One-third of all renters had an affordability problem. The sum total "affordability gap" for these 1.15 million households (the difference between the rents actually paid versus the amount of rent they could afford to pay) was $2.69 billion in 1986. Between 1981 and 1986, there was a substantial increase in the number of households with affordability problems and the total affordability gap. This increase in affordability problems was due to a combination of an increase in average rents which exceeded the inflation rate, and a decline in the "real" income profile of the renter population, and demographic change. Other data indicate that renter affordability problems continued to deteriorate until at least 1988.

Two scenarios for potential future changes in renter housing affordability problems have been developed - a "base case" and a "plausible" scenario. Both scenarios link projections of housing demand between 1986 and 2001 to estimates of housing affordability problems for the year 1986.

The "Base Case":

The "base case" scenario in Chapter 6 assumes that rent and income distributions of renter cohorts will be the same in 2001 as in 1986. The resulting projections indicate that the number of renter households paying more than 30 percent of their incomes for rent could rise by 315,000, or 21,000 per year (which is roughly equivalent to the current annual rate of federal-provincial commitments of rent geared-to-income subsidy units). The projections show a significant shift in the distribution of problems among age groups. In 2001, younger age groups (under 35 years of age) will comprise one-third of renter affordability problems compared to 43 percent in 1986. The 35 to 54 age group and the 65 and over group will both increase their shares of affordability problems by 5 percentage points.

This scenario depends critically upon an implicit assumption of significant growth in the supply of low rent (under $300 per month, in 1986 dollars, or under $360 in 1990 dollars) and moderate rent housing ($300 to $499 in 1986 dollars, or $360 to $600 in 1990 dollars). This assumption is not consistent with experience from 1981 to 1986, when the low rent stock shrank and the growth in the moderate rent stock was just barely sufficient to offset those losses: there was no net growth of the under $500 rental housing stock between 1981 and 1986. The lack of low and moderate rental housing contributed to a significant increase in affordability problems.

Private sector investment will be called on to provide between 24,000 to 39,000 new unsubsidized rental housing units per year during 1986 to 2001. The low end of this range is comparable to actual levels of unsubsidized investment in the early 1980's, which was a period of weak investment in all forms of real estate. The high end is comparable to the 1970's, which was a period of very strong investment. The low end assumes that unilateral provincial housing supply programs are maintained at recent levels; the high end assumes that the provincial programs lapse. In addition to the demographically driven requirement, private sector investment would be required to alleviate current shortages (in southern Ontario and southern British Columbia) and to replace any rental housing lost through demolition, conversion, or

abandonment. Based on the 1981 to 1986 experience, this could require another 10,000 units per year.

A review of investment conditions suggests that the 1990's will be more like the early 1980's than the 1970's.

- During the 1970's and the second half of the 1980's, rapid increases in real estate values created expectations that investments in rental housing would earn large capital gains, and stimulated considerable amounts of investments. During the 1990's, demographic change could result in much slower rates of increase in real estate values. This would reduce expectations of the profits that can be earned through investment in rental housing and reduce investor interest in the rental housing market.

- Successive tax reforms during the 1970's and 1980's have reduced the attractiveness of rental housing investment as a tax shelter.

In order for the private sector to generate required volumes of new supply, rents will have to increase in real terms. It is plausible that during the 1986 to 2001 period rents will rise in real terms at the same annual rate as they did during 1981 to 1986. Over a 15 year period this amounts to an 11 percent real increase.

The "Plausible" Scenario:

The combination of demographic change plus increases in real rents points to a significant growth in affordability problems. A plausible scenario is for a 670,000 increase in the number of renter households with affordability problems. The potential increase of 45,000 per year is more than double the current rate of rent-geared-to-income social housing commitments by the federal and provincial governments.

This scenario implicitly assumes that real incomes of renter cohorts will be the same in 2001 as in 1986. Obviously, if incomes increase (or decrease) in real terms the number and severity of affordability problems would decrease (or increase). The average income of all renters fell between 1971 and 1981. For the 1981 to 1986 period, a more detailed analysis showed that median incomes fell for the majority of the age-household type cohorts of renters (data are shown in Table 2-3). However, it is impossible to conclude whether renter incomes will recover in future or if the past changes will be carried into the future. Therefore, this housing study does not consider any alternative to a status quo assumption for incomes.

The assumption that rents will increase by 11 percent in real terms does not deal with the problems of undersupplied markets, such a those in southern Ontario and southern British Columbia. Conditions of undersupply indicate that rents are currently too low to attract sufficient investment. How much of an increase, on top of the 11 percent that is assumed, is needed to create balance in the undersupplied markets? The problem in undersupplied markets has been described as lack of opportunities for low density investment. Is it possible to increase opportunities for low density investment through low cost (or no cost) means, or will it be necessary to stimulate high density supply from corporate investors, through high cost supply programs, much higher rents, or other means?

The findings of this research paper point to four objectives with which future rental housing policy must be concerned.

- Responding to increasing renter housing affordability problems.

- Encouraging and facilitating individual investment in rental housing, in a period when profitability is being reduced and there will be a tendency for rental housing to be converted to other uses.

- Encouraging the return of corporate investors to those rental markets where there is a need for new construction of high density rental housing.

- Defining an appropriate policy balance between the free play of market forces, regulation (including rent regulation), and government expenditure.

Responding to Housing Affordability Problems

Shelter allowance (and rent supplement) programs are frequently proposed as the most cost-effective approaches for addressing housing affordability problems. There have been many studies of the potential costs of Canadian shelter allowance programs. Cost estimates vary, depending on program designs and on assumptions about the rate at which eligible clients take-up the program. Design parameters typically cover 4 factors.

- Definitions of affordable shelter cost-to-income ratios (usually 25 or 30 percent).

- Replacement rates - it is sometimes assumed that the programs will cover only 75 percent of the affordability gaps of needy households.

- Maximum rents would be set to prevent subsidizing consumption of high quality housing.

- Maximum incomes would be set to avoid subsidizing households who can afford to solve their own housing problems.

This paper will not add to the volume of shelter allowance program cost estimates. But, estimates of "affordability gaps" indicate the potential maximum costs for a full-scale shelter allowance program, actual program costs would be less, depending on program design. The estimates of affordability gaps also show that the program costs would increase rapidly. "Affordability gaps" are calculated as follows. For each household, it is assumed that the "affordable rent" is 30 percent of income. If actual rent exceeds the "affordable rent" then the household has an affordability problem. The difference between the actual rent and what is affordable is the affordability gap. The gaps can be cumulated for the complete population of renters to indicate the total size of the affordability problem. Chapter 6 showed that in 1986, the total renter affordability gap was $2.78 billion (or $3.32 billion in 1990 dollars). In the year 2001, the total affordability gap, in a status quo scenario (which is considered unlikely), is $3.48 billion in 1986 dollars ($4.17 billion in 1990 dollars). In a more plausible scenario for 2001, the total affordability gap is much larger, $4.46 billion in 1986 dollars ($5.33 billion in 1990 dollars), which is a 60.4 percent real increase in just 15 years. No matter what the design of a shelter allowance program (or a rent supplement program), it is clear that program costs would very likely increase significantly in the coming years. Because it is impossible to be confident about the extent to which private market rents will increase in future, long term program costs are unpredictable.

Shelter allowance programs are appealing because they are entitlement programs - everyone who has a qualifying housing problem and who applies for assistance can receive it - whereas existing housing programs have a lottery aspect. They provide a fixed number of "units" of assistance, and cannot serve every applicant. However, governments have tended to prefer fixed-budget programs because their costs are more predictable and controllable. It is unlikely that a full-scale shelter allowance program will be implemented in the foreseeable future. Furthermore, for the foreseeable future fixed-budget programs will make only gradual inroads on housing affordability problems. Therefore, it is especially important to investigate supply-side initiatives which can encourage the supply of rental housing and remove constraints to supply.

Any measures which encourage investment by individuals and corporations would reduce the pressure on rents and contain future increases in affordability problems. Measures which do not involve subsidizing private investment should be given high priority.

Investment by Individuals

It has been stated repeatedly in this paper that in most of the country, rental markets are in reasonable balance. However, major markets are undersupplied because there are binding physical constraints on opportunities for low (and medium) density investment. There are limited supplies of low density buildings which could be used as rental housing. Furthermore, homeownership and rental housing uses compete for the available stock of existing low density housing. In this competition, the playing field is not level: in a variety of ways, homeownership uses are systemically favoured over rental housing.

- In many jurisdictions property taxes are lower for homeowner-occupancy as compared to rental housing (after the value of credits and rebates is considered).

- There are often municipal regulations which restrict conversion of single family houses to multiple units (for example, through preventing occupancy by unrelated persons). It can be possible to obtain permission for conversion, through a change in zoning, but approval processes are often prolonged, expensive, and are by no means certain to result in approval.

- Dwelling standards discourage conversion of unused space, such as attics and basements, into self-contained apartments.

- Mortgage insurance criteria result in higher ratio financing being available for single-family homeowner-occupancy than for multiple-household rental occupancy (and application fees are lower for the homeowner uses).

These facts mean that in many major urban areas, individual investors - who are now the "natural suppliers" of rental housing - are unable to generate sufficient supply in appropriate locations.

While the systemic discrimination in favour of homeownership, land use patterns, and control systems no doubt evolved in response to real and pressing issues there is an urgent need to encourage and facilitate investment in low and medium density rental housing through regulatory reform at the municipal level. Some of Canada's largest municipalities have clearly recognized this and are introducing greater flexibility

into land use controls. Others are condoning "illegal" conversion, which is a second-best alternative to deregulation. But, these efforts need to be extended to many municipalities which are not responding to local housing crises.

There are at least three kinds of municipal/provincial initiatives which would facilitate investment in needed rental housing.

- Leveling the playing field between homeowner and rental tenures, by eliminating differential homeowner and rental taxes.

- Leveling the playing field by eliminating restrictions (and approval processes) on converting single family into multiple unit housing, by dropping restrictions on occupancy and by narrowing the scope of interior dwelling standards to focus on fire and safety issues, rather than on concerns which are more esthetic. A case can be made for controls on the exterior appearance of converted dwellings, in order to protect market values of neighbouring properties. However, a sensitive deregulation of standards for dwelling interiors would result in greater availability of low quality/low rent housing.

- Permitting intensification of land use, particularly in older suburbs, through blanket increases in allowable densities. Allowing investors to purchase and demolish small, older (and often obsolete) single family units and replace them with multiple unit housing (and non-residential buildings) would let the urban fabric evolve organically, just as older cities did prior to the promulgation of extensive land use controls. Current land use controls seem to force cities into polarization between very high and very low land densities, which creates a complex of social and physical problems. A lack of low and moderate rental housing is just one element of this complex. Other elements include transportation problems and costs, air pollution, and noise. Cities could be healthier if medium density land use was more common.

In its mortgage insurance actuarial analysis, Canada Mortgage and Housing Corporation could establish a separate class for low density single-family housing which is converted to multiple-household rental tenure, rather than including this housing in the risk analysis of higher density rental forms.

Investment by Corporations

Investment by individuals will not alleviate undersupply problems in all markets. Also, in order to ensure the greatest possible amount of competition in housing markets and the greatest possible availability of consumer choices, the return of corporations to rental housing markets would be beneficial. To get corporations back into the market a necessary (but not necessarily sufficient) condition is the improvement of cash flows. It is generally assumed that the only way to improve cash flows enough to be attractive to corporations is to increase rents, and likely by quite large amounts. The previous chapter argued that this is not desirable, because it would result in very significant increases in affordability problems, because long run profitability (as opposed to short term cash flow profitability) would be very high, and because increasing rents might reduce demand so much that there would be very little or no incremental need for the corporate investment. Two ways in which cash flows could be improved without increasing rents are discussed below. Both involve changing the way in which rental housing is financed. There are no guarantees that either approach would be sufficient to induce corporations to return to the rental housing market, but both warrant discussion.

The first kind of approach would encourage the corporations to invest more equity and use less debt finance.

Investors have incentive to maximize leverage, in rental housing and in other investment vehicles, for the following reasons.

- In virtually all realistic circumstances, higher rates if return on equity are achieved by financing with as little equity and as much debt as possible.

- Investors prefer to use as little of their own resources as possible, to spread their capital widely and to avoid exposing their own capital to risk.

- Income tax systems add to these incentives to leverage. They make debt even more attractive relative to equity.

A preference for debt means that when interest rates increase, cash flows are reduced and can turn negative. It also means that future cash flows can be very uncertain. For industries which are very capital intensive, such as housing, the combination of a preference for debt finance and increased interest rates can be a significant deterrent to investment, because of the negative cash flows and because uncertainty about future interest rates increases the risk of financial failure.

If rental housing could be financed with greater amounts of equity and reduced amounts of debt, short term cash flows would be improved and the risks associated with variable interest rates would be reduced. It might be possible to create a preference for equity finance through a fundamental tax reform: taxable income would be in defined in terms of cash flows rather than in terms of deemed revenues and expenses. Rather than depreciate capital according to an arbitrary schedule, a cash flow definition would depreciate it at the same rate as equity is invested and debt is retired. Such a proposal raises some complex considerations.

- Investment of equity could be used to defer taxes, but only to the extent that capital is put to work. Taxes would eventually be payable, on equity takeout or as the investment earns income. Since lower amounts of debt would be used, interest costs and deduction of interest costs from taxable income would also be reduced: the initial tax deferral would be recovered quickly, unless the investor makes additional investments to defer taxes. In that case, very active re-investment would be required.

- Debt and equity would need to be carefully defined so that tax deductions could be taken only for bona fide debt retirement.

- Most importantly, this kind of tax reform would have to be harmonized with other sectors and other tax systems.

The second kind of approach to reducing negative cash flows would use alternative mortgage instruments. In particular, Index-Linked Mortgages (also known as Price Level Adjusted Mortgages) would explicitly deal with the reality that negative cash flow is due to inflation. Inflation is reflected in interest rates and interest costs. Chapter 4 suggested that this is more-or-less offset by capital gains: inflation creates both an expense and an income. In so doing, it changes the nature of profits: negative cash flows in the short term are offset in the long term by gradual improvements in cash flows plus capital gains. Since the inflation component of interest costs pays for increased future profits, inflation may not

change "real" profit rates. While inflation has symmetric effects on expenses and incomes, the asymmetry of timing (expenses occur well in advance of income being received) is problematic to corporate investors in rental housing. An Index-Linked Mortgage creates a symmetry between the expense and income aspects of inflation.

- Since inflation results in an accrual of capital gains, an Index-Linked Mortgage accrues the inflation component of interest rates.

- Debt retirement occurs through the indexation of monthly debt service costs to inflation. As cash flows improve (again, as the result of inflation) the ability to service debt increases.

- The design of an Index-Linked Mortgage may include "planned tilt" - less than full indexation. For example, in the Federal Co-operative Housing Index-Linked Mortgage Program, annual indexation is at 2 percentage points less than the actual inflation rate. Initial payment levels are increased to compensate for the partial indexation.

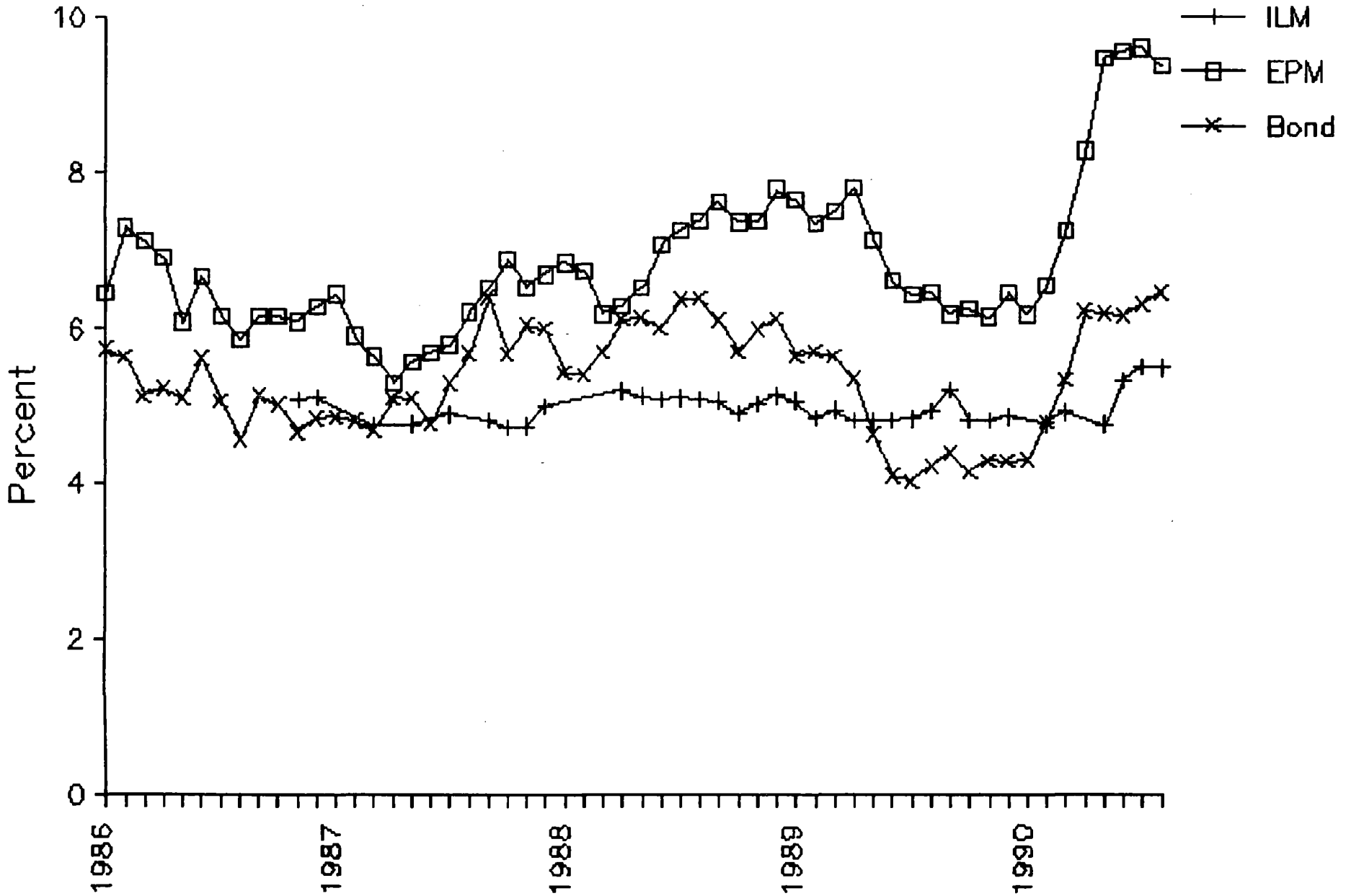
In addition, Index-Linked Mortgages have the potential to reduce real interest rates. Because ILMs guarantee interest rates in real terms over prolonged periods (which no unindexed securities can do), there are certain investors who are prepared to accept relatively low real interest rates. Figure 9-1 contrasts the real interest rates for the Federal Co-operative Housing Program (NHA insured) Index-Linked Mortgages (ILM) with the after-inflation real interest rates for conventional mortgages (EPM) and government bonds of over 10 years maturity. It shows that in the four years that ILMs have been available (since late 1986), they have usually carried lower real interest rates than either conventional mortgages or long terms government bonds and that the ILM real interest rates have been remarkably stable. The ILM real rate has averaged 5.0 percent compared to 5.4 percent for the long term government bonds and 6.9 percent for conventional mortgages. However, real interest rates on these instruments are not strictly comparable because they have different terms. The lower real interest rates on the ILM may reflect that lenders have expectations that in the long term, real interest rates will fall and are therefore accepting lower rates on the longest term instruments. As the Draft Report for the Evaluation of the Federal Co-operative Housing Programs states "cost savings from lower real interest rates on the ILM in the long term will depend on how real rates of return on alternative investments vary over the amortization period. A remaining question is whether the 1980's marked the beginning of a period of higher real interest rates than in the 1960's and 1970's" (Canada Mortgage and Housing Corporation. 1990b. p. 315).

Should it result in lower long-term real interest rates, index-linked lending would result in very significant reductions in interest costs for private investors (and lower subsidy costs for any government housing supply programs in the non-profit sector). Because of the stability of the real rates and the gradual adjustment for inflation, it also offer reduced risk to private investors (and greater predictability of government program costs).

There will no doubt be borrower resistance to Index-Linked Mortgages. This is partly due to uncertainty concerning the ability of rental income to track (or exceed) the inflation index. This is a very legitimate uncertainty, but the reality is that this uncertainty exists in every business and no matter how any investment is financed. In fact, an Index-Linked Mortgage reduces one aspect of the risk

Figure 9–1

Real Interest Rates on Alternative Debt Instruments



associated with inflation - that increases in inflation will result in unexpected and large changes in interest rates and debt service costs.

There will also be resistance to ILMs because the indexation of the principal balance will offset future capital gains. This is a perception problem. People think of capital gains as free. Whether or not they are aware of it, every borrower pays for his or her future capital gain through the inflation component of interest rates: this applies to everyone who borrows money to buy a real asset, including homeowners, landlords, manufacturers, art collectors, and owners of baseball teams.

(In this light, an argument that rents should be increased to close the "viability gap" is equivalent to saying that tenants should pay for landlords' capital gains and that capital gains should be a gift from tenants to landlords.)

In order to generate private sector interest in index-linked borrowing, there would need to be an education program to explain the instrument as well as its risks and benefits.

The Co-operative Housing Evaluation also identified a number of factors which may limit lender interest in Index-Linked Mortgages.

> "The analysis identified a number of changes to the ILM which would increase interest in the ILM and competition, thereby creating the potential for decreases in real interest rates.
>
> First, the government could make a commitment to the ILM as an investment vehicle and erase the uncertainty linked to the experimental nature of the current program. Second a guaranteed stream of payments would prevent the uncertainty related to the risk of early prepayment from the Mortgage Insurance Fund in the event of default. Third, a higher volume and improved liquidity, for example through securitization, would increase investor interest. Finally, improved information, external review of the ILM and improved targeting of marketing to the persons generating investment strategies and policies would also increase interest in the ILM." (Canada Mortgage and Housing Corporation. 1990b. p. 260).

Before Index-Linked Mortgages can be introduced to the for-profit rental housing market, some practical issues need to be resolved.

- Lending and mortgage insurance criteria need to be established, in order to accurately reflect default risks and to reduce the risk of default.

- For tax purposes, the interest expenses of borrowers would have to be deducted on a cash basis rather than an accrual basis. If an accrual approach is used, indexation of principal would be treated as deferred interest and borrowers could use ILMs as tax shelters. Ideally, there should be an inflation-accounting system for tax purposes wherever an ILM is involved.

- Similarly, investment in the Co-operative Housing Index-Linked Mortgages seems to be limited to tax-exempt lenders (especially pension funds). This may be due to the fact that indexation of principal would normally be treated as deferred interest and lenders would have to pay tax on "interest" which they would not receive for many years. To permit investment by tax-paying lenders,

interest income from Index-Linked Mortgages would have to be defined on either a cash basis or through inflation-accounting, rather than on an accrual basis.

Unfettering Free Enterprise Is Only Part of the Solution

Very few people would disagree with a suggestion that housing is so important to national welfare that government has a vital interest in housing costs and conditions. However, what specific role government should play is debated.

- The most common view from the private for-profit housing industries is that there should be the greatest possible reliance on market forces and that impediments to the operation of the market should be minimized (for example, rent controls should be eliminated). Government should not intervene directly in the market place, (that is, housing should not be subsidized) except to help those whose economic circumstances prevent them from competing in the market. The federal government has agreed to comply with this second point. Federal housing subsidies are targeted to those in "core housing need", through a variety of "supply" (Rent Supplement), "demand" (for example, Non-Profit, Co-operative, and Rural and Native Housing) and renovation (Residential Rehabilitation and Emergency Repair) programs. (Households are in "core housing need" and are eligible for assistance if they live in a crowded or inadequate dwelling (in need of major repair or lacking basic plumbing facilities) or pay 30 percent or more of their income for shelter, and if their income is such that they are unable to obtain uncrowded and suitable accommodation in their area without paying more than 30 percent of their income). The federal government does not express any position on rent controls, which fall under provincial government jurisdiction.

- Some non-profit non-governmental organizations argue that in addition to assisting tenants with affordability problems, government ought to intervene in the housing market to ensure that there is an adequate supply of modest rental accommodation. The NGO's have varying views on rent controls. Provincial governments are involved in market housing to varying degrees, in both the rental and homeownership sectors, and forms of rent review exist in 7 provinces.

There seems to be a very strong consensus that the federal and provincial governments have important roles in alleviating housing problems among the poor. There is some agreement that government can facilitate effective functioning of the private market by providing mortgage insurance (on an actuarially sound basis) and through regulatory reform. But there is no consensus on whether governments should play a direct role in contributing to the supply of low and moderate cost housing, or on the impacts of rent controls.

Chapter 8 has already expressed this author's views on rent control, that moderate forms of rent control can provide consumer protection but that restrictive control should be avoided. Because individual investors are now the most important suppliers of rental housing and because their investments are often in housing which is easily converted between homeownership and rental tenure, supply is potentially very sensitive to price signals.

A very strong argument can be made for government initiatives which encourage and facilitate investment from individuals, corporations, and non-profit organizations (including non-profit co-operatives), but without direct subsidies, and therefore

without distorting markets. Individual and corporate investment were discussed in the previous two sections of this chapter. In terms of unsubsidized non-profit investment, government support could include providing mortgage loan insurance for Index-Linked Mortgages on 100 percent of the cost of acquiring new and existing rental housing.

Also, because there is uncertainty concerning future supplies and rents in the private market, a case can be made for continuing to subsidize non-profit and co-operative housing, to ensure that there are adequate stocks of low and moderate rent housing with stable rents.

The main factor leading to the conclusion that future rents and supplies of private market rental housing are uncertain is the possibility that property values will be soft in the 1990's compared to the 1970's and 1980's: the circumstance that creates a greater need for non-profit housing also creates greater opportunities for non-profits and co-operatives to acquire new and existing properties, with and without subsidies. That is the general case. In terms of specific circumstances, Michael Goldberg (1990) suggests that more attention needs to be given to market cycles. Governments and non-profit organizations should take advantage of markets in which property values are temporarily depressed and stand back when housing market values are temporarily high.

For both subsidized and unsubsidized non-profit and co-operative housing, regulatory reform at the municipal level can create greater opportunities to increase supplies and reduce costs of rental housing.

Concluding Remarks

Public and policy discussions related to rental housing usually assume (implicitly) that rental housing is supplied only by big real estate corporations. In the 1970's, housing policy was preoccupied by their withdrawal from the rental market and programs were used in an effort to keep them in the market. In the 1980's, high costs of supply programs led to an almost-nihilistic policy view - that rental housing supply problems are intractable and that supply programs are too expensive. It is not generally recognized that there is a less visible component in rental housing markets which has continued to provide supply and that most rental housing markets have generally been in reasonable balance, in spite of the shortage of subsidies. The rental housing supply programs of the 1970's were attempting to swim against an overwhelming tide - a shift in the ownership of rental housing away from corporations and to individuals. It was appropriate for governments to discontinue subsidizing corporate investment in the rental market, not so much because of the expense but because it was inappropriate to expect large real estate corporations to continue to play the role they had during a relatively short period (the 1960's). Circumstances of the time - a preference for debt finance combined with conventional equal payment mortgage financing - resulted in negative cash flow and contributed (along with concerns about the regulatory environment and the existence of profitable investment alternatives in non-residential sectors) to the corporations' loss of interest in rental housing.

In these pages, the point concerning the shift in ownership and its causes has been made repeatedly because understanding it is essential to developing good rental housing policies - at the federal, provincial, regional, and municipal levels of government.

For the 1990's, another sea-change is looming, as the possible result of two significant negative factors.

- A succession of federal tax reforms began in the early 1970's with the intention of improving the fairness of the tax system. These reforms have made rental housing less attractive as tax shelters.

- Following a period of more than two decades during which rapid appreciation of real estate values encouraged investment in rental housing, demographic change in the 1990's may end the era of booming real estate values.

Both of these factors can be expected to put downward pressure on supplies of rental housing and upward pressure on rents. This paper has presented a scenario for the impact of rising rents. It indicates that there is the potential for a very substantial increase in the incidence and severity of rental housing affordability problems in Canada.

These prospects suggest that rental housing supply and rental housing affordability must be moved up the policy agenda, by all levels of government, in all areas of the country.

APPENDIX "A"

REGIONAL PROFILES:

RENTAL HOUSING AFFORDABILITY

REGIONAL PROFILES:
RENTAL HOUSING AFFORDABILITY

This appendix provides regional data on the affordability of rental housing in the years 1981 and 1986 (Tables A-1 to A-3), on potential demand for rental housing from 1986 to 2001 (Table A-4), and on two scenarios for affordability in the year 2001 (Tables A-5 and A-6).

(It should be noted that Tables A-4 to A-6 were derived from a different data base than were Tables A-1 to A-3. Therefore, data may be inconsistent.)

Actual Affordability: 1981 Versus 1986 (Tables A-1 to A-3)

In all but four provinces (Alberta, Ontario, Manitoba and Saskatchewan) the number of renter households with affordability problems grew by more than did the total number of renter households - in other words, the number of renters who could afford their housing actually shrank between 1981 and 1986. This was due to a combination of rising real rents and falling real incomes of the renter population.

Table A-1 compares renter housing affordability in 1981 and 1986. Table A-2 shows income distributions. Table A-3 profiles changes in the rent ranges of occupied rental housing.

The Atlantic Provinces had an incidence of renter affordability problems comparable to the national average in 1981, but the incidence increased considerably by 1986. Moreso than anywhere else in the country, homeownership is preferred over rental tenure in the Atlantic Region. As a result, all of the net growth in demand for rental housing between 1981 and 1986 was from households with incomes (in 1985 dollars) below $12,000. In higher income ranges, rental demand shrank. This marked downward shift in renter incomes combined with a sizeable reduction in the availability of low rent housing to produce a 34 percent increase in the number of renter households with affordability problems.

In 1981, Quebec had the lowest incidence of renter affordability problems in the country, but the incidence rose sharply by 1986. Between 1981 and 1986, there was a sharp drop (31 percent) in the availability of housing with rents less than $300 per month (in 1986 dollars) and a 60 percent increase in units renting for $500 and over. There was also a sharp drop in the number of high income renters, as Quebec experienced a pronounced tenure shift towards homeownership.

There was a small increase in the incidence of renter affordability problems in Ontario, but it remained well below the national average. Ontario was the only region in which the number of higher income renters (over $28,000 per year in 1985 dollars) grew between 1981 and 1986. The number of low rent units (under $300 per month) shrank considerably (as in all but one other region) and Ontario had the highest growth rate of high rent housing. However, the improvement in renter incomes limited the growth in affordability problems.

In Manitoba and Saskatchewan the incidence of affordability problems was above the national average in both 1981 and 1986, although the rate of growth of problems was below the national average. As in most of the country, the income profile of renters shifted downwards and most of the net growth in the stock of occupied rental housing was for units renting for $500 per month and over.

Alberta was the only region in which the incidence of affordability problems fell between 1981 and 1986. High rents in the late 1970's and early 1980's, combined with federal and provincial government incentives, stimulated large amounts of investment activity in rental housing markets. The combination of increased housing supply and a prolonged recession resulted in oversupply which forced landlords to reduce rents. Even though the income profile of renters was reduced, as occurred in most of the country, the decline in rents was sufficient to reduce the incidence of affordability problems.

British Columbia had the highest incidence of affordability problems in 1981 and also had the largest increase in the incidence of problems between 1981 and 1986. There was a significant decline in the number of renter households having incomes of $28,000 and over (in 1985 dollars), and most of the net growth in renter households was in the lowest income range (under $12,000 per year). While the stock of moderate rent housing in British Columbia expanded substantially, this was not sufficient to prevent further growth in affordability problems.

TABLE A-1
CHANGES IN RENTAL HOUSING AFFORDABILITY PROBLEMS,
1981 TO 1986

Region	Renter Households	Affordability Problems (1)	Incidence of Problems
Atlantic Provinces			
1981	172,408	50,941	29.5%
1986	184,158	68,304	37.1%
Change	+ 11,750	+ 17,363	+ 7.6 (2)
Quebec			
1981	1,014,125	282,000	27.8%
1986	1,062,601	365,207	34.4%
Change	+ 48,476	+ 83,207	+ 6.6 (2)
Ontario			
1981	1,088,653	303,833	27.9%
1986	1,166,088	355,331	30.5%
Change	+ 77,435	+ 51,498	+ 2.6 (2)
Manitoba and Saskatchewan			
1981	209,830	65,150	31.0%
1986	227,669	79,744	35.0%
Change	+ 17,839	+ 14,594	+ 4.0%
Alberta			
1981	279,050	98,450	35.3%
1986	316,043	105,129	33.3%
Change	+ 36,993	+ 6,679	- 2.0 (2)
British Columbia			
1981	352,383	126,042	35.8%
1986	398,389	173,162	43.5%
Change	+ 46,006	+ 47,120	+ 7.7 (2)
Canada (3)			
1981	3,128,949	927,316	29.6%
1986	3,368,248	1,148,897	34.1%
Change	+ 239,299	+ 221,581	+ 4.5 (2)

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

Notes: (1) Gross rent-to-income ratio exceeds 30%. Households with zero and negative incomes are assumed not to have a problem.
(2) Change in percentage points.
(3) Canada total includes Northwest and Yukon Territories.

TABLE A-2
INCOMES OF RENTER HOUSEHOLDS
1980 AND 1985 (1)

Region	Nil	$1 - $11,999	$12,000 - $19,999	$20,000 - $27,999	$28,000 And Over	Total
Atlantic Provinces						
1980	723	49,301	39,818	29,003	53,563	172,408
1985	1,413	63,387	38,057	28,140	53,161	184,158
Change	+ 690	+14,086	- 1,761	- 863	- 402	+ 11,750
Quebec						
1980	11,325	283,125	190,075	176,925	352,675	1,014,125
1985	18,353	349,404	212,716	173,145	308,983	1,062,601
Change	+ 7,028	+ 66,279	+ 22,641	- 3,780	- 43,692	+ 48,476
Ontario						
1980	9,754	278,424	206,959	188,423	405,093	1,088,653
1985	12,805	298,382	212,347	199,620	442,934	1,166,088
Change	+ 3,051	+ 19,958	+ 5,388	+ 11,197	+ 37,841	+ 77,435
Manitoba and Saskatchewan						
1980	1,890	63,510	46,700	34,850	62,880	209,830
1985	2,926	78,061	49,625	35,538	61,519	227,669
Change	+ 1,036	+ 14,551	+ 2,925	+ 688	- 1,361	+ 17,839
Alberta						
1980	2,750	54,850	45,600	48,250	127,600	279,050
1985	4,381	78,823	59,824	54,730	118,285	316,043
Change	+ 1,631	+ 23,973	+14,224	+ 6,480	- 9,315	+ 36,993
British Columbia						
1980	3,997	90,421	66,383	54,227	137,355	352,383
1985	3,987	126,722	78,504	65,524	123,652	398,389
Change	- 10	+ 36,301	+12,121	+11,297	-13,703	+ 46,006
Canada (2)						
1980	30,539	821,031	597,335	533,478	1,146,566	3,128,949
1985	43,905	996,779	653,073	558,337	1,116,154	3,368,248
Change	+13,366	+175,748	+ 55,738	+ 24,859	- 30,412	+ 239,299

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

Notes: (1) In 1985 constant dollars.
(2) Canada total includes Yukon and Northwest Territories.

TABLE A-3
RENT RANGES FOR OCCUPIED RENTAL HOUSING
1981 AND 1986 (1)

Region	Less than $300	$300-$499	$500-$699	$700 And Over	N/A	Total
Atlantic Provinces						
1981	68,768	83,586	15,483	4,371	200	172,408
1986	54,769	93,566	27,146	8,637	40	184,158
Change	-13,999	+ 9,980	+11,663	+4,266	-160	+ 11,750
Quebec						
1981	531,350	393,250	56,800	32,125	600	1,014,125
1986	367,991	552,147	93,765	48,198	500	1,062,601
Change	-163,359	+158,897	+ 36,965	+16,073	-100	+ 48,476
Ontario						
1981	330,896	553,375	147,511	53,903	2,968	1,088,653
1986	256,101	560,962	232,582	114,136	2,307	1,166,088
Change	-74,795	+ 7,587	+85,071	+ 60,233	- 661	+ 77,435
Manitoba and Saskatchewan						
1981	84,850	96,750	19,550	5,010	3,670	209,830
1986	74,020	108,953	35,125	7,332	2,239	227,669
Change	-10,830	+12,203	+15,575	+2,322	- 1,431	+ 17,839
Alberta						
1981	46,400	99,800	86,200	44,850	1,800	279,050
1986	51,644	150,759	86,154	25,986	1,500	316,043
Change	+ 5,244	+50,959	- 46	-18,864	- 300	+ 36,993
British Columbia						
1981	81,209	165,867	66,274	38,533	500	352,383
1986	68,396	197,460	91,279	40,754	500	398,389
Change	-12,813	+ 31,593	+25,005	+ 2,221	nil	+ 46,006
Canada (2)						
1981	1,151,473	1,395,228	393,218	179,292	9,738	3,128,949
1986	878,981	1,666,827	568,071	247,283	7,086	3,368,248
Change	-272,492	+ 271,599	+174,853	+ 67,991	-2,652	+ 239,299

Source: Estimates by the author from the 1981 and 1986 Census of Canada Public Use Sample Tapes.

Notes: (1) In 1986 constant dollars. Gross rent includes cash rent paid plus utility costs paid by tenant.
(2) Canada total includes Yukon and Northwest Territories.

Potential Demand for Rental Housing, 1986 to 2001 (Table A-4)

In all regions of the country, the majority of the projected growth in rental housing demand is for non-family households.

TABLE A-4
POTENTIAL DEMAND FOR RENTAL HOUSING
1986 TO 2001

Region	Couples without Children	Couples with Children	Lone Parent Families	Multiple Family Households	Non-Family Households	All Household Types
Atlantic Provinces						
1986	34,646	50,652	28,062	1,017	70,507	184,884
2001	35,677	54,081	30,822	1,227	90,457	212,264
Change	+1,031	+ 3,429	+ 2,760	+ 210	+19,950	+27,380
Quebec						
1986	226,428	218,195	151,269	3,541	464,929	1,064,362
2001	243,738	240,644	174,490	4,103	616,227	1,279,202
Change	+17,310	+22,449	+23,221	+ 562	+151,298	+ 214,840
Ontario						
1986	241,680	251,974	141,197	7,883	526,335	1,169,069
2001	286,354	300,218	173,311	9,779	745,041	1,514,703
Change	+44,674	+ 48,244	+ 32,114	+ 1,896	+ 218,706	+ 345,634
Manitoba and Saskatchewan						
1986	39,639	46,212	28,685	908	115,810	231,254
2001	40,530	49,032	31,001	1,006	138,915	260,484
Change	+ 891	+ 2,820	+2,316	+ 98	+23,105	+29,230
Alberta						
1986	60,259	73,600	37,849	1,467	144,374	317,549
2001	68,979	85,979	45,665	1,831	194,573	397,027
Change	+ 8,720	+12,379	+7,816	+ 364	+ 50,199	+79,478
British Columbia						
1986	76,536	73,671	48,081	2,070	202,480	402,838
2001	93,936	88,800	58,610	2,548	284,045	527,939
Change	+17,400	+15,129	+10,529	+ 478	+81,565	+125,101
Canada (1)						
1986	681,116	720,132	436,746	17,218	1,528,117	3,383,329
2001	771,729	826,423	516,211	21,045	2,074,752	4,210,160
Change	+90,613	+106,291	+79,465	+3,827	+546,635	+826,831

Source: Unpublished projections by Canada Mortgage and Housing Corporation.

Notes: (1) Canada total includes Yukon and Northwest Territories.

Potential Changes in Affordability Problems, 1986 to 2001 (Tables A-5 and A-6)

Table A-5 shows a scenario for the future affordability of rental housing, based on status quo assumptions: for each cohort (household type/age group/region combination), the incidence of problems will be the same in 2001 as in 1986, which implies that cohort distributions of incomes and rents will be unchanged. This table shows the impact of demographic factors alone.

Most regions, with the exception of Manitoba and Saskatchewan, would experience a small increase in the incidence of affordability problems as the result of demographic change between 1986 and 2001.

Following a review of supply side factors (in Chapter 4), it has been concluded that the status quo scenario is unlikely to occur, as rents are likely to continue to increase in real terms between 1986 to 2001. In Table A-6 a "plausible scenario" is shown, in which it is assumed that monthly rents will increase by $46.50 between 1986 and 2001.

In this plausible scenario, all regions experience large increases in the incidence of affordability problems.

TABLE A-5
RENTAL HOUSING AFFORDABILITY,
STATUS QUO SCENARIO, 1986 AND 2001

Region	Renter Households	Affordability Problems (1)	Incidence Of Problems
Atlantic Provinces			
1986	184,884	70,173	38.0%
2001	212,264	81,445	38.4%
Change	+ 27,380	+11,272	+ 0.4 (2)
Quebec			
1986	1,064,362	378,349	35.5%
2001	1,279,202	470,394	36.8%
Change	+214,840	+ 92,045	+1.2 (2)
Ontario			
1986	1,169,069	364,795	31.2%
2001	1,514,703	479,368	31.6%
Change	+ 345,634	+114,573	+0.4 (2)
Manitoba and Saskatchewan			
1986	231,254	82,175	35.5%
2001	260,484	91,287	35.0%
Change	+ 29,230	+ 9,112	-0.5 (2)
Alberta			
1986	317,549	108,722	34.2%
2001	397,027	136,622	34.4%
Change	+ 79,478	+ 27,900	+0.2 (2)
British Columbia			
1986	402,838	178,610	44.3%
2001	527,939	237,709	45.0%
Change	+125,101	+ 59,099	+0.7 (2)
Canada			
1986	3,383,329	1,184,956	35.0%
2001	4,210,610	1,499,852	35.6%
Change	+ 826,831	+ 314,896	+0.6 (2)

Source: Projections by the author.

Notes: (1) Gross rent-to-income ratio exceeds 30%. Households with zero and negative incomes are assumed not to have a problem.
(2) Change in percentage points.

TABLE A-6
RENTAL HOUSING AFFORDABILITY,
RENT INCREASE SCENARIO (1)
1986 AND 2001

Region	Renter Households	Affordability Problems (2)	Incidence Of Problems
Atlantic Provinces			
1986	184,884	70,173	38.0%
2001	212,264	101,610	47.9%
Change	+27,380	+31,437	+ 9.9 (3)
Quebec			
1986	1,064,362	378,349	35.5%
2001	1,279,202	571,882	44.7%
Change	+ 214,840	+193,533	+ 9.2 (3)
Ontario			
1986	1,169,069	364,795	31.2%
2001	1,514,703	621,951	41.1%
Change	+ 345,634	+257,156	+ 9.9 (3)
Manitoba and Saskatchewan			
1986	231,254	82,175	35.5%
2001	260,484	118,884	45.6%
Change	+ 29,230	+36,709	+10.1 (3)
Alberta			
1986	317,549	108,722	34.2%
2001	397,027	167,284	42.1%
Change	+ 79,478	+58,562	+ 7.9 (3)
British Columbia			
1986	402,838	178,610	44.3%
2001	527,939	272,224	51.6%
Change	+125,101	+93,614	+ 7.2 (3)
Canada			
1986	3,383,329	1,184,956	35.0%
2001	4,210,610	1,857,873	44.1%
Change	+ 826,831	+ 672,917	+9.1 (3)

Source: Projections by the author.

Notes: (1) Monthly gross rents increase by $46.50 in 1986 dollars between 1986 and 2001.
(2) Gross rent-to-income ratio exceeds 30%. Households with zero and negative incomes are assumed not to have a problem.
(3) Change in percentage points.

APPENDIX "B"

A NOTE ON THE MEASUREMENT OF HOUSING AFFORDABILITY

A NOTE ON THE MEASUREMENT OF HOUSING AFFORDABILITY

This study has relied on one relatively simple measure of housing affordability - shelter cost-to-income ratios. Households which pay more than 30 percent of their incomes on rents have been assumed to have affordability problems. This appendix provides a brief discussion on alternative concepts for measuring affordability.

For the purpose of assessing the affordability of housing, the most widely used approach is to identify households who pay more than a certain percentage of their income for shelter. Various thresholds have been used - up until the mid 1980's, 25 percent was commonly used, since then a 30 percent level has become more accepted. Burke, Casey, and Doepner (1981: p. 7) found that in Western Europe "between 15 to 20 percent has traditionally been considered a maximum for social policy. In North America, a range of 20 to 30 percent has been historically regarded as a fair rate of expenditure for housing. The higher income the level of per capita income, the higher has been the proportion of income accepted as fair for housing costs".

However, there are at least four significant criticisms of using rent-to-income ratios as measures of housing affordability.

The first is that actual spending may be more or less than is required to obtain acceptable accommodation. Households may "underconsume" housing, particularly if, as a result of insufficient income, they are forced to live in substandard or crowded housing: they may pay a low percentage of their income for housing and may not be considered "needy" from an affordability perspective even though their housing is inadequate. Other households will choose to pay high percentages of their incomes for rent, even though they could obtain suitable housing at an "affordable" percentage. To overcome these problems, Canada Mortgage and Housing Corporation employs a definition of "core housing need". Households are included in estimates of need if they live in crowded or physically inadequate housing and to obtain appropriate housing in their local area would require 30 percent or more of their income, or if they pay 30 percent or more of their income for shelter and could not obtain uncrowded and adequate housing for less than 30 percent of their income.

Core housing need estimates developed by Canada Mortgage and Housing Corporation indicate the extent of overconsumption and underconsumption. For 1988, 126,000 renter household with affordability "problems" were "overconsuming" housing and should be excluded from core housing need: they paid 30 percent or more of their incomes on rent, but their incomes were high enough to afford adequate and suitable rental housing in their areas. On the other hand, there were 93,000 renter households which did not have affordability problems but were "underconsuming": they paid less than 30 percent of their incomes on rent, but lived in inadequate or unsuitable housing. Adequate and suitable rental housing in their areas would have cost 30 percent or more of their incomes. While they did not have affordability problems, they were in core housing need as a result of their underconsumption problems (Canada Mortgage and Housing Corporation: 1990a. Table 1). These results indicate that overconsumption and underconsumption tend to cancel each other out and that core need approaches and shelter cost-to-income approaches may yield similar counts of households with housing affordability problems. However, as John Miron has pointed out, the two approaches may identify quite different sets of needy households (Miron. 1984: p. 5.11).

The second criticism of using threshold definitions for housing affordability is that the amount of income which is available to be spent on housing depends on total income and on costs for other necessities (which is a function of the composition of the household and prices for necessities). Therefore, for households in different circumstances, affordable shelter cost-to-income ratios will differ. This consideration leads to "budgeting" approaches to affordability. As an example of this, the Social Planning Council of Metropolitan Toronto produces "Guidelines for Family Budgeting", which are based on actual costs for housing and other necessities. While these guidelines apply specifically to Metropolitan Toronto and they are for 1983, they can be used to illustrate that the percentages of their incomes which households can afford to devote to housing depend upon income levels and on household composition. The last column shows the implied maximum affordable rent-to-income ratios for a variety of typical households. If a household's income is less than (more than) the minimum shown, then the rent-to-income ratio which it can afford would be lower than (or higher than) the percentage shown.

TABLE B-1
AFFORDABLE RENT-TO-INCOME THRESHOLDS
FOR METROPOLITAN TORONTO
1983

Household Composition	Minimum Annual Income (1)	Monthly Rent	Rent-to-Income Ratio (2)
Four person family (renters) Man (worker), Woman (at home) Girl (8 years), Boy (13 years)	$21,650	$423.07	23.4%
Three person family (renters) Woman (employed), Girl (8 years), Boy (13 years)	$19,797	$322.79	19.6%
Two person family (renters) Man (worker), Woman (employed)	$14,662	$233.19	19.1%
One person household (renter) Woman (elderly)	$ 9,339	$120.18	15.4%

Source: Social Planning Council of Metropolitan Toronto Guidelines for Family Budgeting, 1983. pp. 188-203.

Notes: (1) Annual gross income, including estimated Personal Income Tax, CPP, and UIC, less Tax Credits.
(2) In the calculation of rent-to-income ratios, rents have been converted to annual amounts.

A second example of a budgeting approach to assessing essential expenditures relative to income is the Statistics Canada "low income cutoff". The data which are shown below are based on 1978 expenditure patterns, updated for changes in the cost of living with the all-items Consumer Price Index. In the 1978 base, households which would have to spend more than 58.5 percent of their income for

food, shelter, and clothing are considered by Statistics Canada to be in "straitened circumstances". Statistics Canada has developed this indicator as a measure of "low income": it uses the costs of three basic necessities, only one of which is housing-related. Although housing is given a large weight, the low income cutoff cannot be said to be a measure of "housing affordability". Also, it should be noted that the income cutoffs are based on actual household expenditures and therefore do not in any sense indicate "poverty lines", "survival levels" or even "socially desirable levels" of income. However, changes in the percentages of households above and below the cutoffs do provide a good indicator of relative changes in economic well-being and permit comparison of the relative positions of different groups.

The time series shown below suggests that there was little change in the economic circumstances of Canadian households in the first half of the 1980's, for either homeowners or renters. This shows the effect of the 1981-82 recession and the slow recovery of incomes in the following years. However, in the second half of the decade, there were reductions in the incidence of low incomes for each of the four groups of households. The data also show that there is a higher incidence of low incomes among renters than among homeowners, and among unattached individuals than among families.

TABLE B-2
INCIDENCE OF LOW INCOMES FOR HOUSEHOLDS BY TENURE
(BASED ON 1978 LOW INCOME CUTOFFS)

	Owners		Renters	
Year	Families	Unattached Individuals	Families	Unattached Individuals
1980	7.5%	36.0%	23.0%	40.3%
1981	7.7%	32.4%	20.9%	39.3%
1982	7.8%	32.5%	25.1%	38.8%
1983	7.8%	33.6%	28.7%	44.6%
1984	8.9%	30.0%	26.7%	40.6%
1985	7.7%	28.0%	26.0%	40.0%
1986	7.0%	24.7%	24.5%	38.1%
1987	6.3%	23.3%	24.9%	37.2%
1988	5.6%	24.9%	23.9%	36.3%

Source: Statistics Canada. "Income Distributions by Size in Canada". Various issues.

A further review of the low income cutoff data, shown in Table B-3, looks at age groups, but does not separate owners and renters. It shows that in the second half of the 1980's, the incidence of low income increased for younger families and unattached individuals (whose head is aged less than 35 years). There was improvement for families and unattached individuals in older age groups (45 years of age and over). The greatest improvements were for households in the retirement age groups.

TABLE B-3
INCIDENCE OF LOW INCOMES FOR HOUSEHOLDS BY AGE GROUP
(BASED ON 1978 LOW INCOME CUTOFFS)

	Families		Unattached Individuals	
Age of Head	1980-84	1985-88	1980-84	1985-88
24 and under	26.5%	29.2%	44.4%	48.3%
25-34	14.2%	14.7%	20.7%	22.4%
35-44	11.6%	10.8%	22.7%	23.4%
45-54	9.8%	7.9%	33.0%	30.1%
55-64	11.4%	10.6%	41.3%	39.7%
65-69	13.1%	9.6%	46.8%	35.4%
70 and over	11.8%	8.4%	60.3%	44.5%
All Ages	12.6%	11.6%	38.7%	34.5%

Source: Statistics Canada. "Income Distributions by Size in Canada". Various issues.

The low income cutoffs are updated annually, using the all-items Consumer price Index. The next chapter will show that average rents increased by 3.5 percent in real terms (that is, in excess of the all-items CPI) between 1981 and 1986 and that they have continued to increase in real terms into 1990. Therefore, the low income cutoff methodology has underestimated increases in the cost of living for renters. As a result, it may be a misleading indicator of low incomes and housing affordability problems among renters.

A third problem with using rent-to-income ratios as measures of affordability has been identified by analysts of housing needs. Income is widely used as the measure of ability-to-afford. However, as John Miron (1984) defines it, the true ability depends on "total sources of funds", which would include money gifts from outside the spending unit, inheritances, payments from insurance policies, windfall gains, capital gains, other moneys from the liquidation of assets, and the proceeds of borrowing. "Permanent income", which reflects expected average lifetime income, may also be a better measure.

A fourth problem is that households may under-report their income to surveys, particularly when it is earned in the underground economy.

NOTES

2.1 Table 2-12.

The change due to demographics. Factors for the incidence of affordability problems and affordability gaps by cohort were calculated for 1981. These factors were applied to the 1986 distribution of renter households. The difference between these estimates and the 1986 actuals are the changes due to demographics. By holding factors constant for each cohort, the effect of demographic change is revealed.

The change due to incomes. Factors for 1986 were re-estimated, with 1986 rents reduced by a factor of 1.0349 to reflect real rents in 1981. The factors were applied to the 1981 renter population. The gap factors were divided by 1.319 to reflect 1981 constant dollars. These calculations reveal what the incidence of problems and the gaps would have been for the 1981 population, if incomes were distributed as in 1986. Differences between 1981 actuals and the revised estimates are the changes due to incomes. The increase in the total affordability gap is expressed in 1986 dollars.

The change due to rents. The incidence of affordability problems and affordability gaps for 1981 were re-estimated, with 1981 rents multiplied by 1.0349 to reflect the 1981 to 1986 increase in real rents. The differences between the re-estimate and 1981 actuals is the change due to the increase in average real rents. The increase in the total affordability gap is expressed in 1986 dollars.

The unexplained residual increases in affordability problems and affordability gaps are due to interactions.

Two constraints were imposed on the data in the calculation of affordability gaps. Firstly, households who reported negative income were arbitrarily assigned a gap of zero (otherwise their affordability gaps would have exceeded their actual rent payments). For 1986, 4,280 renter households reported negative incomes (averaging $-12,698). If the calculation of the gap had included households with negative incomes the total gap would have been increased by $36.6 million, or only 1.4 percent. Secondly, the 1986 Census Public Use Sample database assigned minimum values to rents, such that any rents of less than $100 per month were recorded as $100 per month. The impact of this was tested using the 1981 database. A minimum rent of $75.82 was imposed in 1981. (Since inflation from June 1981 to June 1986 was 31.9 percent, a 1981 rent of $75.82 is equivalent to a rent of $100 in 1986.) This resulted in a total 1981 gap of $1.514 billion. A second estimate for 1981, with no minimum rent, produced a total gap of $1.510 billion. The difference between the estimates was one-quarter of a percentage point.

3.1 Rent index: There are two shortcomings with the rent component of the Consumer Price Index. Firstly, the CPI is based on reported cash rents. Tenants may or may not pay for utilities separately. Secondly, it is argued that the CPI underestimates rent increases for constant quality housing by failing to account for depreciation.

To incorporate tenants' payments for utilities, a gross rent index was constructed, using data from the CPI. Data included are: the rent, water,

fuel oil and other liquid fuel, piped gas, and electricity. These components are weighted using data on 1982 expenditures by all tenants, taken from Statistics Canada "Family Expenditure in Canada 1982" catalogue number 62-555. Because the water component is available starting only in April 1973, separate weights are constructed and linked. The weights are

Component	Prior to April 1973	April 1973 and Later
Rent	88.95%	88.26%
Water	N/A	0.79%
Fuel oil and other liquid fuel	1.89%	1.88%
Piped gas	2.32%	2.30%
Electricity	6.82%	6.77%

The index is then increased by a compounded factor of 0.058 percent monthly, to reflect a 0.7 percent annual depreciation factor.

3.2 The following table profiles the current portfolios of federally subsidized social housing and market housing units. The inventory by date of initiation is the best available indicator for the volumes of new rental housing investment subsidized during each Census period.

PORTFOLIO OF SUBSIDIZED RENTAL HOUSING AS OF JUNE/JULY 1990

	Prior to May '71	June '71 -May '76	June '76 -May '81	June '81 -May '86	June '86 -June '90
Social Housing					
Section 15.0					
- Non Profit Private	9,487	6,648	629		40
- Non Profit Public	3,627	67	1,619		
Section 15.1					
- INAC			10		
- Non Profit Private	426	3,488	14,342	195	
- Non Profit Coop	30	268	1,172		
- Non Profit Public	274	273	3,828	223	
Section 34.18					
- Non Profit Coop		497	4,916	30	
Section 56.1					
- Coop/ILM					10,080
- INAC			335	3,935	3,488
- INAC Post '85					1,208
- Non Profit Private			7,728	29,904	5,915
- Non Profit Coop		591	4,447	30,672	3,869
- Non Profit Public			5,406	30,771	5,523
- Urban Native			334	2,732	932
Public Housing					
- Section 40	11,736	4,815	9,491	7,296	983
- Section 43/44	32,058	59,070	31,007	6,351	340
Rural and Native Housing, Rental and Lease-Purchase Only		253	953	540	2,555
Subtotal	57,638	75,970	86,217	112,649	34,933
Market Housing					
- Limited Dividend	15,503	22,148	9,773		
- Assisted Rental Program		22,351	100,402		
- Canada Rental Supply Plan				24,122	
Subtotal	15,503	44,499	110,175	24,122	
Total - Social and Market Housing	73,141	120,469	196,392	136,771	34,933

Sources: Canada Mortgage and Housing Corporation administrative files.

Note: For all social housing programs and Limited Dividend, dates for availability are based on Interest Adjustment Dates. For Assisted Rental Program and Canada Rental Supply Plan, dates are based on year of commitment: units committed prior to 1971 are included in counts for the 1971 Census; units committed during 1971 to 1975 are included in the 1976 Census counts; units committed during 1976 to 1980 are included in the 1981 Census counts; units

committed during 1981 to 1985 are included in the 1986 Census counts.
(1) Excludes unilateral provincial government and municipal housing programs.

4.1 Table 4-2: Marion Steele's index (shown in Figure 4-2) used price information on cities, weighted by 1981 population. The index in Table 4-2 used average provincial prices, weighted by 1986 ownership households. Because of its greater geographic detail, Marion Steele's index should give a better measure of true price change. However, for the periods that they overlap, the two indices move together quite closely.

4.2 The hypothetical rental project is taken from "A Primer on the Economics of Rental Construction", by Frank Clayton, in Habitation, February/March 1985. pp. 17 -18.

Key figures are

Total Cost	$45,000
Land	$ 7,000
Soft Costs	$ 7,600
Depreciable Asset	$30,400
Monthly Rent	$ 439
Monthly Operating Cost	$ 165

The investment is financed with 25 percent equity and 75 percent debt, at specified interest rates.

It is assumed that operating costs rise at the inflation rate (generally 4 percent) but that rents rise at 1 percentage point less than the inflation rate. This reflects that rents for existing buildings will decline in relative terms as a result of depreciation.

For the pre-1987 simulations, the combined federal/provincial income tax rate is assumed to be 50 percent. For 1987 and subsequently, the rate is 42 percent.

The holding period is assumed to be 25 years, at which time the property is sold for market value (determined through the specified rate of capital appreciation) and taxable capital gains and recapture are calculated.

6.1 The Data

Data used in this report for 1986 were derived from the 1986 Census, but from two different sources which have 2 major conceptual differences. The data in Chapters 1 to 4 were estimated from the Public Use Sample Tape, which excludes households living "on-reserve". These data provide the economic factors which will be used to project the potential future economic circumstances of renters. On the other hand, the projections of potential housing demand (including household counts for 1986 and the projections for 2001) which were shown in Chapters 5 to 7, include on-reserve households. Therefore, the household and dwelling counts shown in Chapters 1 to 4 differ from those in Chapters 5 to 7.

The second difference is that the two data bases employ different concepts of "family". The Public Use Sample Tape uses the "economic family" definition in which a family consists of anyone related by blood, marriage, or adoption. On the other hand, the data used in the potential housing demand model uses the more narrow "census family" definition, in which "family" is restricted to husband-wife couple with or without never-married children or a lone parent with never-married children. As an example of the difference between the two definitions, two brothers sharing a dwelling along with their children would be considered one family under the economic family definition, but a "multiple family" household under the census family definition.

Because of the conceptual differences between the databases, there are differences in the total number and the composition of households in Chapters 1 to 4 compared to Chapters 5 to 7. The economic factors, which are developed in Chapters 1 and 2, are applied to a different base of households in Chapters 6 and 7. This undoubtedly produces errors in the estimated economic characteristics of the future renter population. Chapter 2, which used the Public Use Sample Tape data, showed that 34.1 percent of renter households had an affordability problem in 1986. Applying the factors developed in Chapter 2 to the households from the Potential Housing Demand model results in an estimate that 35.0 percent of households had affordability problems in 1986. While an error results from combining the data sources, the overall conclusions concerning potential changes between 1986 and 2001 will not be invalidated by the errors. Because the factors are applied consistently to the 1986 and 2001 populations, the estimates of changes between the periods should be unbiased.

The following table shows the discrepancies between the two data bases. The differences are small in proportion to the total number of households. In short, any errors which result from the conceptual differences between the data bases will not be significant.

DIFFERENCES IN HOUSEHOLD COUNTS AND COMPOSITION
FOR RENTER HOUSEHOLDS IN THE 1986 CENSUS,
COMPARING DATA FROM THE PUBLIC USE SAMPLE TAPE AND
THE POTENTIAL HOUSING DEMAND MODEL

Data Source	Couples Without Children	Couples With Children	Lone Parent Families	Multiple Family Households	Non-Family Households	All Renter Households
Public Use Sample Tape (PUST)	634,176	918,591	374,877	2,622	1,437,982	3,368,248
Potential Housing Demand Model	681,116	720,132	436,746	17,218	1,528,117	3,383,329
Difference						
- Number	+ 46,940	-198,459	+ 61,869	+ 14,596	+ 90,135	+ 15,081
- as % of PUST Renter Hhlds	+ 1.4%	- 5.9%	+ 1.8%	+ 0.4%	+ 2.7%	+ 0.4%

Source: Estimates by the author from the 1986 Census of Canada Public Use Sample Tape and the Potential Housing Demand Model.

The Method

In Chapters 1 and 2, analysis of 1986 Census data yielded various indicators (incomes, rent ranges, rent-to-income ratios, and affordability gaps) which profile the economic conditions of renters. The data on the indicators were stratified by 3 variables: Region (7 Regions were defined), household type (5 types), and age of the household maintainer (7 age groups). This generated data for 245 cohorts for each of the 3 economic indicators. For each of the 245 cohorts, the number of renter households in 1986 is available and projections have been made for the year 2001. The projections for 2001 were summarized in Chapter 5.

In the "Base Case" projections shown in Chapter 6, each of the cohort factors has been applied to the household data. Therefore, the base case assumes stability in the economic circumstances in 2001 compared to 1986.

An illustration will help to explain the method.

In Quebec, in 1986, there were 56,532 non-family renter households whose maintainer was aged 15 to 24 years. Within this cohort, the distribution of rent-to-income ratios was as follows:

30 percent or less	43.83%
30.1 to 49.9 percent	21.55%
50 to 99.9 percent	18.06%
100 percent and over	12.71%
Ratio does not apply	3.84%
Total	100.00%

For 2001, the projected number of renter households in this cohort (Quebec, non-family, maintainer aged 15 to 24 years) is 58,801. Applying the above cohort factors to the projected number of households yields the following projection of rent-to-income ranges for the cohort in the years 1986 and 2001.

Rent-to-Income Ratio	1986	2001
30 percent or less	24,778	25,772
30.1 to 49.9 percent	12,183	12,672
50 to 99.9 percent	10,210	10,619
100 percent and over	7,185	7,474
Ratio does not apply	2,171	2,258
Total (1)	56,526	58,795

Note: (1) Totals may not add due to rounding. The total numbers of households shown in this table for 1986 and 2001 differ slightly (by 6) from the actual number of households because the calculations were rounded to 4 decimal places.

Similar calculations are made for each of the 245 cohorts and for each of the 4 indicators, then the results are aggregated.

8.1 Based on the findings of the Fallis and Smith study, the no rent control scenario is simulated by increasing rents for controlled units by 12.38 percent. Rents for uncontrolled units are reduced by 9.37 percent. Units are

assumed to be subject to rent controls if the grosrent is less than $750 per month and the building was completed prior to 1976. Otherwise, the unit is assumed to be not subject to rent controls.

8.2 Based on the findings of the Clayton Research Associates study, rents for controlled units are increased by 25 percent. Rents for uncontrolled units are held constant. Rent control status is determined as described in Note 8.1.

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