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THE CRISIS IN RENTAL HOUSING:
A CANADIAN PERSPECTIVE

BY

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GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

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# THE CRISIS IN RENTAL HOUSING:

# A CANADIAN PERSPECTIVE

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ABSTRACT OF

"THE CRISIS IN RENTAL HOUSING: A CANADIAN PERSPECTIVE"

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Concern has recently been raised in the United States and Canada about a growing crisis in rental housing. Since many of the issues raised in connection with the possibility of a U.S. crisis have surfaced earlier or in magnified form in Canada, this paper examines the question of a rental housing crisis from the Canadian perspective. The paper begins with a discussion of the background to the rental crisis and an examination of the pre-1972 tax preferences for rental housing. The paper then analyzes the evolution of the crisis, focusing upon the 1972 restructuring of the tax system, expectations of accelerating inflation, government support for competing housing forms and rent control. The impact of high interest rates on the decline in rental construction, and changes in the socio-economic composition of tenants and in the affordability of rental housing are also discussed. The paper concludes with an analysis of the outlook for rental housing.

# THE CRISIS IN RENTAL HOUSING: A CANADIAN PERSPECTIVE

by

Lawrence B. Smith*

Concern has been raised recently in the United States and Canada about a growing crisis in rental housing. This concern has been triggered by a number of factors. During the last decade and a half, the national vacancy ratio declined from 8.25 percent to 5.0 percent in the United States, and from 5.7 percent to 1.2 percent in Canada. Between 1973/74 and 1980/81, private multiple-family dwelling starts declined 40 percent in the United States and 77 percent in Canada, and during the 1970s, the rent to income ratio of renter households rose from .21 to .25 in the United States(1) and from .18 to .22 in Canada.(2)

Citing the U.S. data, the U.S. General Accounting Office asserted in 1979 that the United States was in a rental housing crisis.(3) On the other hand, the majority of participants at a 1980 conference sponsored by the Office of Policy Development and Research, the U.S. Department of Housing and Urban Development disputed this assertation. They suggested instead that the rental housing market was simply adjusting to changing economic influences,(4) primarily in taxation and the perception of inflation.

Since many of the issues central to the United States debate have surfaced earlier or in magnified form in Canada, this paper

examines the question of a rental housing crisis in Canada. Because of the similarites in institutional structures, government programs, household aspirations and economic, demographic and social trends, Canadian experience is highly relevant for the United States debate.

The paper begins in section I with a discussion of the background to the rental crisis and an examiniation of pre-1972 tax preferences for rental housing investment. Section II analyzes the evolution of the crisis, focusing upon the 1972 restructuring of the tax system, expectations of accelerating inflation, government support for competing housing forms and the imposition of rent control; and section III summarizes and integrates this analysis. Section IV examines two myths associated with the rental crisis, that high interest rates are responsible for the decline in rental construction and that a significant decline in the affordability of rental housing has occurred. Section V concludes with a discussion of the outlook for rental housing.(5)

## I. The Rental Housing Crisis in Historical Context

To understand the current state of the rental housing market in Canada it is necessary to place it in historical perspective. At the end of the 1960s, Canada was extremely well housed. Canada ranked first in the Western world in terms of number of rooms per dwelling, was tied for first with the United States for the lowest occupancy and crowding densities and was second to the United States in the provision of basic facilities.

The percentage of families not maintaining their own households was a relatively low 3.4 percent in 1971, and the percentage of dwellings occupied by non-family households was a relatively high 18.4 percent.(6)

These accomplishments were achieved to a large extent through the vigor of the private multiple dwelling sector, as rental apartment starts accounted for 47 percent of all housing starts between 1963 and 1970, and 85 percent of these were private non-government assisted starts. At the beginning of the 1970s, private apartment vacancies were a relatively high 5.0 percent. Nevertheless, it was clear to some observers that a "cost-expense-rent squeeze" was looming and that a sharp reduction in private multiple rental starts was likely unless rents were to rise substantially.(7) On the other hand, it was feared that such a rise would generate intensified pressure for rent control and that this would lead to a rental housing crisis.(8)

Although Canadian housing standards continued to improve throughout most of the 1970s, the engine of growth shifted from the private rental sector to the government supported homeownership sector and the public rental sector.(9) In contrast to the 1960s, private non-government rental construction declined steadily throughout the 1970s, and by 1980/81 private rental starts had fallen to 10 percent of total starts. In 1981, private rental completions were less than 20,000, or only 1.5 percent of the existing private rental apartment stock,(10)

and the national vacancy rate in private rental dwellings of six or more units was only 1.2 percent. Moreover, a number of major cities such as Calgary, Halifax, Ottawa, Toronto and Vancouver had vacancy rates below 1.0 percent. The severity of the crisis in rental housing is thus clearly indicated by the simultaneous lack of rental vacancies and private rental starts.

This current state of the rental housing sector is in sharp contrast to the extremely vigorous nature of the rental housing sector in the 1960s, when rental housing was supported by a favorable tax structure and increasingly positive demographics.

A. Pre-1972 Tax Preferences for Investment in Rental Housing

Prior to the 1972 restructuring of the tax system, the tax structure was relatively favorable for housing, and especially for investment in rental housing. Homeownership benefited from the absence of taxes both on capital gains and on imputed net rent (the net rent that a homeowner would receive if a home were rented rather than occupied by the owner). The effect of these benefits was relatively modest, however, because capital gains on other assets were not taxed, housing expenses (such as mortgage interest and property tax) were not tax deductable, and inflation was not anticipated to be high.

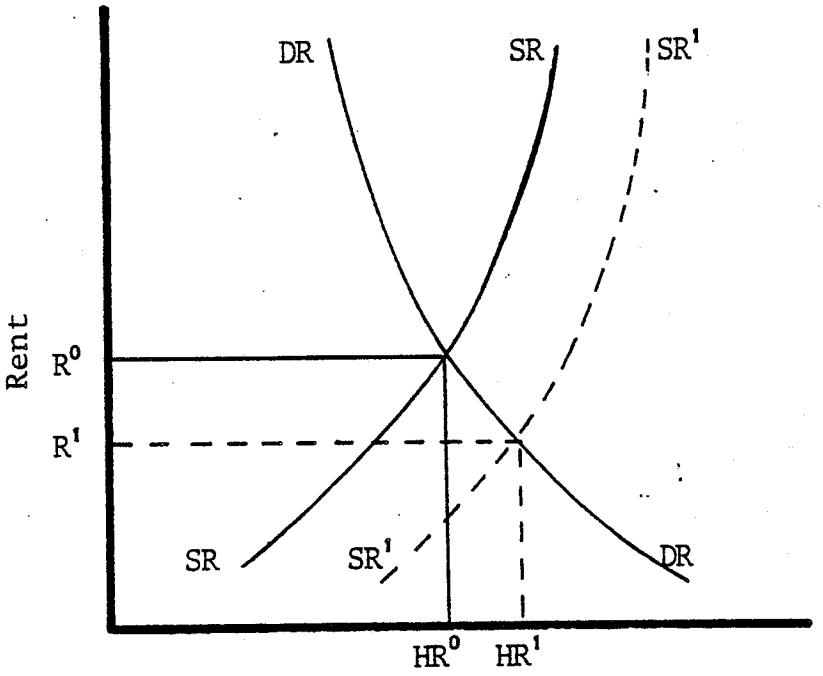
Rental housing, on the other hand, benefited substantially from tax incentives because capital cost allowances (depreciation) were in excess of true economic depreciation, roll-over provisions enabled the postponement of recaptured depreciation on the sale

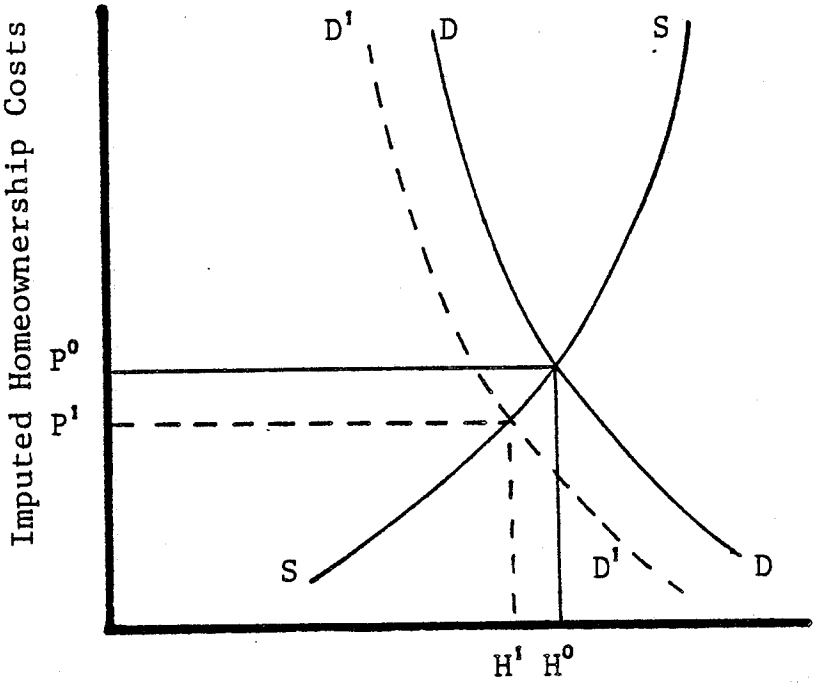
of an investment property, capital gains were not taxed, book losses were deductible against other income (which enabled a tax sheltering of other income), and special tax treatment was provided on death. These investment incentives increased the equilibrium stock of rental housing and, although they were primarily for rental housing, they lowered the user cost of housing in both the rental and homeownership sectors.

When tax concessions are provided for investment in rental housing, they increase the desirability of such investments. This is depicted in Figure 1 by a shift in the supply curve of rental housing from SR-SR to SR'-SR'. This shift in the supply curve lowers rents from $R^o$ to R' since the price of rental housing services is determined by the intersection of the rental supply curve with the demand curve for rental housing DR-DR. Since the relative price of homeownership is an important component in the tenure choice decision, lower rents encourage households to change their demand from homeownership to rental housing, and thus the homeownership demand curve D-D shifts to the left to D'-D' when rents in the rental sector decline from $R^o$ to $R'$. (The slope of the rental demand curve reflects both this shift in homeownership demand and the increase in net new housing demand associated with the lower rent). This shift in demand lowers the nominal price of housing from $P^o$ to P', and thereby lowers the user cost of homeownership, since mortgage costs, property taxes and the opportunity cost of equity funds

FIGURE 1

INTERACTION OF RENTAL AND
OWNERSHIP HOUSING MARKETS



fall with the decline in the nominal price of housing.

Tax concessions for investment in rental housing also alter the allocation of resourses both between housing and the rest of the economy and within the housing sector itself. Since relative after-tax investment yields are increased for rental housing and after-tax user costs of housing are reduced, the total demand for housing increases and the equilibrium stock of housing increases. Within the housing sector the equilibrium rental housing stock increases from $HR^{O}$ to HR' and the equilibrium homeownership stock declines from $H^{O}$ to H'. Thus, a tax structure which provides significant relative tax benefits for investment in rental housing increases the equilibrium stock of rental housing, and lowers user costs of both rental and homeownership housing services.

Since the pre-1972 tax preferences for housing had long been an integral part of the Canadian tax system, housing and financial markets had adjusted to these preferences and they were reflected in the housing stock and new residential construction activity in the 1960s.

B. Demographic Changes and the Rental Construction Boom

In the late 1960s, these tax preferences, expectations of rising inflation and the growing realization that profound favorable demographic changes were occurring interacted to generate a construction boom in rental housing. Between 1968 and 1971, new construction of rental apartments rose to 103,100

units annually or 50 percent of total housing starts, up from 67,600 units or 43 percent in the preceding 5 years. Moreover, despite the adverse tax changes of 1972, multiple rental starts remained strong in the early 1970s. This strength was partially in response to the continuation of favorable demographics for rental housing;[12] primarily the coming of age of the "postwar babies," the sharp rise in the divorce rate and the steep decline in the birth rate. These forces combined to increase annual net household formation 59 percent between 1961/66 and 1966/76, and annual net non-family household formation 84 percent between 1961/66 and 1966/76.

Nevertheless, despite the strength of the underlying demographic forces, the extraordinary boom in rental housing construction increased vacancies and suppressed rents in the early 1970s.[13] This suppression in rents together with the increasing awareness that the demographic forces favorable to rental housing would soon peak and decline set the stage in the mid-1970s for a downward adjustment in new rental construction.

## II. Evolution of the Crisis

The downward adjustment in new rental construction was converted from a normal market correction to a complete collapse by four major structural shifts: the 1972 restructuring of the tax system, the growing perception that inflation would persist and probably accelerate, the shift in public policy away from private rental housing in favor of non-market rental housing

and homeownership housing, and the imposition of rent control.

A. Revisions to the Tax Structure

The Canadian tax structure underwent a major revision in 1972 and a number of changes had a profound impact on housing. From a housing viewpoint the most important revisions were:

i) the introduction of a capital gains tax on realized gains on all financial and real assets except for a principal residence,

ii) the termination of roll-over provisions enabling the postponement of recaptured depreciation on the disposition of a depreciable asset above depreciated value,

iii) the elimination of paper losses in real estate as deductions against non-real estate income for tax purposes (i.e. the elimination of investment real estate as a tax shelter), and

iv) the deemed realization on death of part of the gain on real estate (other than a principal residence).

These changes significantly increased the relative attractiveness of homeownership and reduced the relative attractiveness of rental housing investment, especially in an increasing inflationary environment.

a) homeownership incentives: The introduction of a capital gains tax on all assets except a principal residence conferred a substantial tax benefit to homeownership since homeownership became the only vehicle by which a non-taxable capital gain could be realized. In 1979, this benefit was estimated to be

$2.5 billion in the form of government tax expenditures[15] (i.e. lost government revenue as a result of the differential tax treatment of the realized gains on the sale of principal residences from the gains on other capital assets). In addition (as discussed below), the benefit of the non-taxation of imputed net rent rose considerably as a result of inflation, and in 1979 this benefit was estimated to be $3.7 billion.[16] As a result, the relative desirability of homeownership as opposed to renting increased considerably.

b) disincentive for investment in rental housing: The elimination of the tax loss features of real estate investment, the recapture and treatment as income of accumulated depreciation upon the disposition of a property, the deemed realization on death of part of the gain on real estate and the imposition of the capital gains tax substantially reduced the attractiveness of investment in rental properties by reducing the after-tax yield and the liquidity of real estate investments.

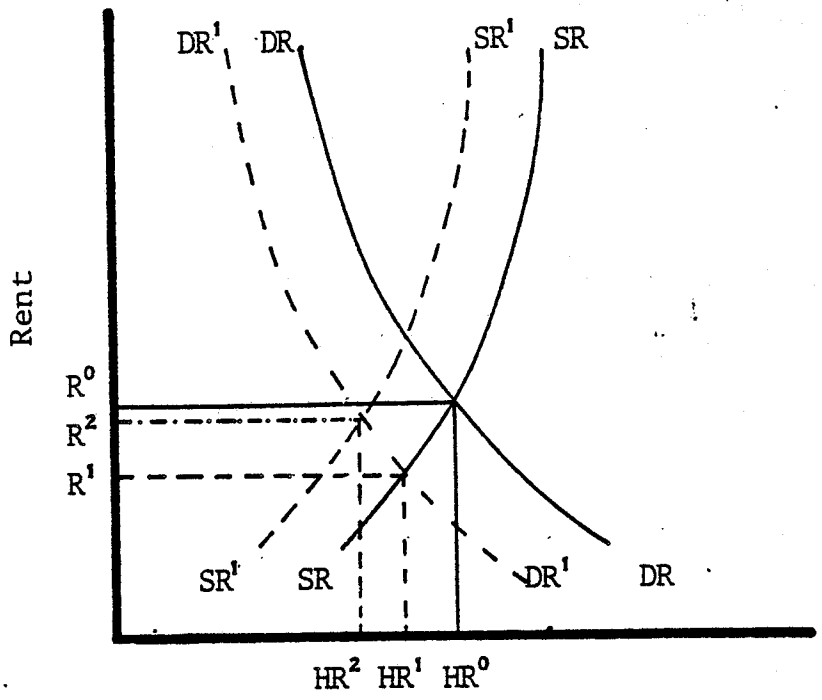
The most significant of these changes were the elimination of the tax shelter and roll-over provisions. The capital gains tax, while reducing the desirability of residential rental investment, had a smaller effect than might be imagined because all major equity investments (other than a principal residence) were similarly treated.[17] On the other hand, the elimination of the tax shelter was considered so important that in December, 1974, the government reversed its position and "temporarily"

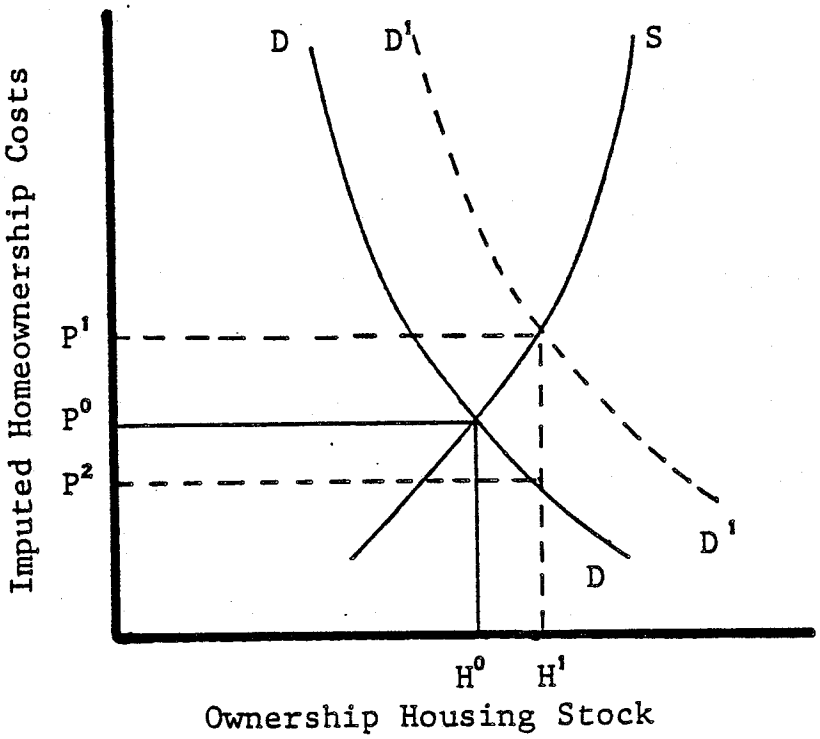
re-allowed losses on new multiple unit residential buildings (MURBs) for which construction was started within a specified period to be applied against other income. This MURB provision was extended annually until the end of 1979 when it was terminated for new construction. (It subsequently re-appeared again for one year in 1981).

The effects of these charges for homeownership and investment in rental housing are demonstrated in Figure 2. The tax concessions for homeownership shift the homeownership demand curve to the right, from D-D to D'-D', and the rental demand curve to the left, from DR-DR to DR'-DR', as some renters are induced to switch their tenure form. These shifts raise the imputed before-tax user cost of homeownership from $P^o$ to P' as nominal home prices (and possibly the mortgage rate) are bid up, but lower the imputed after-tax user costs of homeownership from $P^o$ to $P^2$, assuming the tax benefits are $P'P^2$.(18) The reduction in rental demand lowers rents in the rental sector from $R^o$ to R' and reduces the equilibrium stock of rental housing to HR'. The reduction in tax incentives for investment in rental housing shifts the supply curve of rental housing to the left and further reduces the equilibrium stock of rental housing to $HR^2$. In the longer run this adjustment in the supply will cause rents to move upward to $R^2$. Nevertheless, by increasing the relative attractiveness of homeownership (the shift in the demand curve to DR'-DR') and reducing incentives for

FIGURE 2

IMPACT OF TAX CHANGES ON HOMEOWNERSHIP AND RENTAL HOUSING INVESTMENT



investment in rental housing (the shift in the supply curve to SR'-SR'), the 1972 tax revisions significantly reduced the desirability of rental investment and reduced the equilibrium stock of rental housing (from $HR^o$ to $HR^2$ in Figure 2).(19)

B. Increasing Inflationary Expectations

During the late 1960s and early 1970s, the perception grew that inflation was becoming institutionalized in the Canadian economy(20) and that it was likely to accelerate. This perception significantly altered household preferences for homeownership and, to a lesser extent, investor preferences for rental housing.(21)

Anticipation of accelerating inflation affects the tenure decision both by changing the expected relative user cost of housing independent of the tax system and by interacting with the tax system to increase the relative benefits of tax preferences for homeownership.

a) independent of the tax system: The expected user costs of homeownership in Canada, UCH, may be defined over any time period as

$$UCH = O + M + D + (E)(i)(1-t) - \Delta^e PH \qquad (1)$$

where O represents expected operating costs, M represents expected mortgage interest, D represents expected house depreciation, (E)(i)(1-t) represents the expected after-tax (1-t) foregone interest (i) on homeowner equity (E), and $\Delta^e PH$ represents the expected capital appreciation of the house from its

depreciated value.[22] An increase in anticipated inflation thus affects expected user costs immediately by increasing $\Delta^{e}PH$ and 0, which lowers UCH since PH > 0.

Higher anticipated inflation will, with a lag, be reflected in higher nominal interest rates,[23] which raises both the mortgage costs and foregone interest costs on homeowner equity. Under the assumption that both the nominal rate of interest and price of homes increase by the rate of inflation (i.e. the expected rate becomes the realized rate and is fully incorporated with no tax or other premiums), the increase in interest rates will fully offset the increase in the price of the home for new homebuyers and existing owners with variable rate mortgages, and expected user costs will increase by the increase in expected operating costs and depreciation.[24] Since operating costs and depreciation are typically less than the cost of renting equivalent housing services, if rents, operating costs and depreciation all rise in proportion (i.e. with inflation), for any anticipated positive inflation the expected user costs of homeownership will rise less than the expected increase in the cost of renting equivalent housing services. This will increase the relative demand for homeownership and increase home prices until the increase in user costs associated with the rise in home prices restores the user homeownership-rental cost balance, assuming housing and mortgage markets operate perfectly. In reality, imperfections in the home finance market associated

with the level payment mortgage impedes the full price adjustment, as the "tilt" problem increases early year real mortgage payments and prevents many households from qualifying for mortgage credit.(25) Nevertheless, an increase in the anticipated rate of inflation will lower the pre-adjustment relative user cost of homeownership, and tenure choice will shift in favor of homeownership. This reduces the demand for rental accomodation and further weakens the rental housing sector.

b) interacting with the tax system: The increase in the relative attractiveness of homeownership arising from an increase in the anticipated rate of inflation is reinforced by tax preferences for homeownership.(26) Higher inflation increases the benefits of the exemption from capital gains tax and of the non-taxation of imputed net rent. The latter benefit rises because the increase in the imputed net rent arising from inflation is not taxed, while the increase in income necessary to pay the higher cost of equivalent housing is taxed. Thus, the after-tax increase in income necessary to enable an existing homeowner to maintain the same housing services equals the increase in operating costs (assuming mortgage costs are fixed), while the after-tax increase in income necessary to enable an existing tenant to rent the same housing services equals the full increase in gross rent. Consequently, the proportion of household income devoted to shelter falls for an existing homeowner relative to an existing tenant as a result of inflation,(27) and in anticipation of this

tenants are induced to shift their desired tenure form away from rental housing.

Since accelerating inflation increases the relative attractiveness of homeownership compared to renting, especially when it interacts with existing tax preferences for homeownership, expectations of accelerating inflation shift housing demand from the rental sector. This exerts downward pressure on rents and reduces the relative attractiveness of investment in rental housing. Moreover, this reduction is reinforced by the use of historic rather than market or replacement costs as the basis for depreciation for tax purposes. The use of historic costs causes depreciation to decline in real terms as a result of inflation, and this restrains the increase in net after-tax cash flows.

C. Changing Philosphy Behind Housing Policy

During the 1970s, the philosophy underlying housing policy in Canada shifted from one which encouraged the private sector by improving the efficiency of the real and home finance markets to one which discouraged the private rental sector by direct intervention and regulation. This discouragement took many forms.

First, intervention occurred through large scale construction of government housing and subsidization of non-market rental housing (primarily limited dividend corporations, non-profit corporations and non-profit cooperatives) for low and moderate income households which directly competed with the private market sector. Between 1970 and 1974, for example, (i.e. prior

to rent control) government and non-market apartment starts accounted for 9.9 percent of total housing starts and 23.8 percent of total apartment starts compared to 5.8 percent and 12.5 percent respectively in the preceeding 6 years.(28)

Second, government assisted private homeownership through a variety of subsidies, direct loans and tax incentives. The most significant subsidy forms were cash grants provided by the federal government and some provinces in 1975 to stimulate the demand for homeownership,(29) federal interest subsidies offered between 1973 and 1978 under the Assisted Home Ownership Program (AHOP) which provided subsidies of up to $1,200 a year to reduce mortgage payments on the purchase of a house to 25 percent of family income,(30) interest free loans provided by the federal government and some provinces at various times, and land leases offered by various provinces at subsidized rents to low and moderate income families. Direct mortgage loans were made by the federal government under AHOP to purchasers who failed to qualify for private institutional funds.(31) A major tax incentive for homeownership was also provided by the introduction in 1975 of Registered Home Ownership Savings Plans which allowed a non-home owning taxpayer to make tax deductible contributions of $1,000 a year to a maximum of $10,000 to a Plan whose income was not taxed and whose total contributions and accumulated income could be withdrawn without tax for the purchase of a home.

Third, regulation arose in many forms including rent

control, Landlord and Tenant Act revisions which generally increased tenant security and imposed additional restrictions on landlords, controls on foreign investment and an unearned increment land tax in Ontario which discriminated against investment in rental housing compared to non-residential investment real estate.(32)

By subsidizing and directly providing the competition to private rental housing, and by imposing additional regulations on the private rental sector, government policy restrained rents in the private sector, created an unfavorable atmosphere for housing investment and clearly discouraged the private ownership of and investment in rental housing.

D. Rent Control

Rent control was introduced in Canada in 1975, mainly in conjunction with the federal Anti-Inflation Program, and provided the ultimate discouragement for the rental housing market.(33) Since rent control is a provincial responsibility, the form and substance of the controls varied between provinces, but the discouragement for the rental sector was universal.

Regardless of their specifics, rent control will, if effective, depress the real value of existing rental units, substantially inhibit new rental construction even if such construction is exempt from controls, and promote deterioration in the quality and quantity of the existing housing stock. A recent study of rent control in Ontario, for example, indicated that during the

first five years of controls, the real per unit value of rental apartments declined 39 percent and the nominal per unit value declined 8 percent.(34) Since the existencé of controls in one segment of the market creates an unfavorable environment and generates expectations that controls will be extended to the uncontrolled segment, the commitment of additional resources for rental housing through new construction, renovation, and repairs and maintenance is severely discouraged.(35) This effect on new construction was clearly demonstrated in Ontario, where private unassisted rental starts in 1980 declined to 3,842 units, or to only 13 percent of their 1970/74 (pre-control) level.

## III. Summary

The foregoing analysis indicates that a variety of forces combined during the past decade to weaken the private rental sector. These forces exerted downward pressure on rents, reduced the relative after-tax net yield associated with any given gross rent, introduced market distortions prejudicial to rental housing and created an unfavorable investment climate.

The investment boom in rental construction in the late 1960s and early 1970s restrained rents at the beginning of the 1970s and held the rent to income ratio for tenants to 18.0 percent.(36) Thereafter, downward pressure on rents was exerted by a shift in household preferences in favor of homeownership as a result of increased tax incentives for homeownership, expectations of rising inflation, and sharply increased government grants and

subsidies for homeownership; and by increased competition from government and subsidized non-market housing forms. This downward pressure was reflected in a persistent decline in real gross rents, which fell 34 percent between 1971 and 1981 as measured by the consumer price index, and in a sharp squeeze in net rents exclusive of financing costs, which remained relatively constant in nominal terms but declined 58 percent in real terms between 1971 and 1981.(37) The squeeze on net rents associated with new non-subsidized construction was even larger in the 1970s and early 1980s since mortgage costs rose 100-150 basis points during the 1970s, an additional 300 basis points in 1980 and another 150 basis points in 1981.

Although the rental component of the consumer price index is often considered to be downward biased,(38) the direction and approximate magnitude of these declines are supported by an analysis of rents in Ontario based on survey data. This analysis indicates that real gross rent declined 9 percent and real net rent exclusive of financing costs declined 22 percent between 1974 and 1980.(39)

Given the extraordinary squeeze on real net rents and after-tax returns on rental housing investment, and expectations of even further declines associated with the imposition and/or continuation of rent controls, the collapse of the private rental sector was inevitable.

## IV. Postscript on Myths Associated with the Rental Crisis

Despite this analysis which indicated the crisis in rental housing is clearly attributable to insufficient rents and declining net returns for rental housing, the views are often expressed that high interest rates are responsible for the crisis, and that the real crisis is the decreasing affordability of rental housing.

### A. High Interest Rates

Since housing is typically a highly levered long term asset where profitability depends on the cost of credit, the decline in rental construction is often attributed to the sharp increase in interest rates in the 1970s. Although this is an intuitively appealing argument it is incorrect because variations in the rate of interest primarily affect cyclical fluctuations in housing construction and not secular trends, because the real mortgage rate declined during the 1970s and because the increase in the conventional mortgage rate was relatively small prior to the end of 1979.

In the longer run interest rates move with inflation and, in the absence of structural or demographic changes or non-neutral tax or "tilt" effects, it is reasonable to expect rents to do so also. Since the value of a rental investment essentially depends upon its expected discounted cash flow, an inflation induced increase in the rate of interest (and hence in the discount rate) would normally not affect the investment value because it would

usually be offset by an equivalent increase in the expected net rent.(40) Consequently, inflation induced increases in the rate of interest should not affect the profitability nor volume of rental construction.(41)

Of course, interest rates may move independently of the rate of inflation, either as the result of temporary short run fluctuations or of long term changes in the real rate of interest. Since short run fluctuations in the rate of interest are normally incorporated into long term mortgage contracts, these variations affect expected profitability and hence the volume of rental construction. However, these fluctuations are ususally short lived and hence explain cyclical fluctuations but not the longer term downward trend in rental construction. Similarly, long term changes in the real rate of interest on mortgages cannot explain the decline in rental construction because the real mortgage rate, using an ex post definition (the current nominal mortgage rate minus the current inflation rate or minus the previous year's actual inflation rate), declined for much of the 1970s and, although it rose at the end of the 1970s, the real mortgage rate was 300 basis points lower at the end of the 1970s than at the beginning. Finally, changes in the nominal mortgage rate cannot explain the severe decline in new rental construction since the nominal mortgage rate rose from a monthly average of 9.91 percent during 1969/71 to only 10.98 percent during 1977/79.(42)

Consequently, interest rate changes were not responsible for

the downward long term trend in rental construction during the 1970s, although at times they may have had some very minor impact via the "tilt" effect.(43) Increases in the real rate of interest would, however, have significantly affected rental housing starts in the early 1980s had other factors not already virtually destroyed this market.

On the other hand, the shift from long term fixed rate mortgages to variable rate short term mortgages likely had an adverse effect on rental construction by shifting the risk associated with interest rate variability from the financing institution to the investor.(44)

B. Affordability

The increase in the median rent to income ratio from .21 to .25 in the United States, and in the shelter cost to income ratio for tenants from .18 to .22 in Canada are often cited as evidence for a decline in the affordability of rental housing. The preceding analysis suggests, however, that the rent to income ratio is inappropriate as an indicator of changing rental affordability. This inappropriateness stems from the demographic changes and increase in household preferences for homeownership which likely altered the characteristics of the typical renter by lowering the average age and relative income of the typical renter. As a result, the increase in the rent to income ratio is likely to be simply a reflection of the decline in tenant incomes associated with the falling average age of tenants and shift of higher income tenants to homeownership.(45) This interpretation is supported both by the 34 percent decline in real gross rents

during the 1970s, and by the 54 percent decline in the ratio of rents to median family income between 1971 and 1980.(46) The increase in the rent to income ratio for tenants, therefore, is not indicative of a decline in the affordability of rental housing, but of a decline in the average income percentile of tenants (which, itself, may be a reflection of the problems facing rental housing).

## V. The Future of Private Rental Housing

The preceding discussion indicates that the current rental housing crisis is the product of a complex set of factors, the foremost being the change in tax preferences for homeownership, expectations of accelerating inflation, substantial government support for alternative housing forms and rent control, which interacted to restrain rents and reduce the attractiveness of investment in new residential construction. The future of private rental housing depends upon the extent to which the effects of these forces persist, and the impact of new structural shifts such as the changing age composition of the population. Although the negative impacts of a number of these forces are likely to dissipate, the outlook remains relatively pessimistic because of the probable continuation of rent control and unfavorable demographic influences.

The introduction of additional tax preferences for homeownership and expectations of accelerating inflation in the first half of the 1970s shifted tenure preferences in favor of homeownership from rental housing, and thereby reduced the desired stock

of rental housing in the economy. This exerted downward pressure on rents and substantially reduced the volume of new rental construction as the market sought to adjust to the new equilibrium. As this equilibrium is approached, the depressing effects of these forces will diminish, and upward pressure on rents and new rental construction should re-appear, although the new growth paths will be lower than they were previously. In addition, if the expected inflation rate declines or homeownership tax preferences are reduced, the previous process would be reversed as the relative attractiveness of homeownership would decline and the desired stock of rental housing would increase.

The downward pressure from government support for alternative housing is also likely to diminish as government reduces its active intervention in the housing market as a result of the large and growing budgetary requirements of such intervention[47] and changing public attitudes. Such a reduction has already begun as public funds authorized for these activities were cut approximately 73 percent between 1977/78 and 1980/81.[48]

On the other hand, the effects of these favorable market forces are likely to be largely nullified by continuing rent control and increasingly unfavorable demographics. Since the economic consequences of rent control are so clearly negative, the imposition and continuation of rent control would appear to be primarily political.[49] As a result its future is difficult to predict. Assuming, however, that rent controls remain throughout most

of Canada, they will override the corrective market mechanisms and exacerbate the crisis in rental housing. This will occur even if new rental construction is exempt from controls because the existence of controls in one segment of the market generates expectations of an eventual extension and hence depresses new rental construction.

Finally, although the elimination of rent control and threat of its reintroduction would enable a normal market recovery and avert a prolonged rental housing crisis, recovery in rental construction would be tempered by increasingly unfavorable demographics in the 1980s. Average annual net household formation in the 15-34 age bracket, the dominant bracket for new rental demand, is expected to decline to 62,100 households in 1981/86 and only 13,700 households in 1986/91 [50] from 103,250 households in 1971/81, while little change is expected in net household formation aged 65 and over. Assuming no sustained increase in real incomes, the net demand for rental housing is unlikely to grow substantially, although there will be a shift in the age composition of this demand and an increase in replacement demand. On the other hand, these unfavorable demographics may in the long run offer hope for avoiding a prolonged crisis in the rental housing market (although not in new rental construction) since the depressing effects of rent control on supply may be substantially diluted by the negative demographic influences on demand.

## FOOTNOTES

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1. Ira S. Lowry, "Rental Housing in the 1970s: Searching for the Crisis" in Rental Housing: Is there a Crisis? eds. J.C. Weicher, K.E. Villani and E.A. Roistacher (Washington, D.C.: The Urban Institute Press, 1981) p. 32. This increase is disputed by Kenneth T. Rosen, "The Affordability of Housing in 1980 and Beyond" Center for Real Estate and Urban Economics Working Paper 80-10, Institute of Business and Economic Research, University of California, Berkeley p. 11.

2. This is probably overstated. The 1972 figure is from Michael A. Walker, "What are the Facts" in Rent Control a Popular Paradox, F.A. Hayek, et. al., (Vancouver: The Fraser Institute, 1975) p. 29. The 1980 figure is based on average head of household income in 1979 from the HIFE tape increased by 5 percent and compared to the average of all household rents for April, 1980 as supplied by Canada Mortgage and Housing Corporation. Since households often have income in addition to that of the head, the 1980 ratio and hence the increase is overstated.

3. U.S. General Accounting Office, Rental Housing: A National Problem that Needs Immediate Action, Report to the Congress by the Comptroller General, CED-80-11, Nov. 8, 1979.

4. Elizabeth A. Roistacher, "Introduction" in Rental Housing: Is There a Crisis? eds. J.C. Weicher, K.E. Villani and E.A. Roistacher (Washington, D.C.: The Urban Institute Press, 1981) p. 10 and other articles in this volume.

5. Although the conversion of rental apartments to condominiums is a major aspect of the United States market, it is of little significance in Canada, and thus is not discussed in this paper. The lack of such conversions may be explained in large part by federal (and some provincial) housing programs which heavily subsidized the construction of new low and moderate priced condominiums making private condominium conversions relatively unattractive, and by widespread local by-laws prohibiting such conversions.

6. For an elaboration of this see Lawrence B. Smith, Anatomy of a Crisis: Canadian Housing Policy in the Seventies (Vancouver: The Fraser Institute, 1977), p. 14.

7. Lawrence B. Smith, Housing in Canada: Market Structure and Policy Performance (Ottawa: Canada Mortgage and Housing Corporation, 1971), p.16.

8. ibid, p.18.

9. For a discussion of this shift see Lawrence B. Smith, "Canadian Housing Policy in the Seventies," Land Economics 57 (3), (Aug., 1981), pp. 338-358.

10. The number of rental apartment completions is likely over-estimated since the final tenure form of some units could be changed before occupancy to condominium status.

11. Offsets to the decline in user costs would occur if the fall in the price of houses generates expectations of future price declines and/or if the higher equilibrium demand for housing raises the mortgage yield-bond yield spread, reducing the decline in mortgage costs and the opportunity cost of homeowner equity.

12. Other forces maintaining the high level of multiple rental starts include the long planning and preconstruction lags, rising inflationary expectations and a low real mortgage rate.

13. For a discussion of the relationship between vacancies and rents, and of the natural vacancy rate see Lawrence B. Smith, "A Note on the Price Adjustment Mechanism for Rental Housing," American Economic Review 63 (3) (June, 1974), pp. 478-481.

14. For example, the net change in the number of households in the 15-34 age bracket (the primary group for rental housing demand) declined from an annual average of 116,500 in 1971/76 to 90,100 in 1976/81 and is expected to fall to 53,000 in 1981/86.

15. Government of Canada, Department of Finance, Government of Canada Tax Expenditure Accounts (Ottawa: Queen's Printer, 1979), p.43.

16. ibid, p.43

17. However, it discouraged equity investment vis-a-vis debt investment because a higher proportion of the total yield in equities was in the form of capital gain.

18. This representation is not strictly correct since it is relative rather than absolute after-tax costs which fall as a result of the comparative gain in the investment aspect of homeownership arising from the increased tax on alternative assets.

19. Other tax changes in the 1970s reinforced this. These changes included the introduction of Registered Home Ownership Savings Plans to encourage homeownership, and the capitalization for tax purposes of some development and carrying costs associated with real estate development.

20. This is reflected in the indexation of the income tax in 1974.

21. For a discussion of user costs and inflation in the tenure choice decision see Douglas B. Diamond, Jr., "A Note on Inflation and Relative Tenure Prices," J. American Real Estate and Urban Economics Association, 6(3)(Winter, 1978) pp. 438-450; Patrick H. Hendershott "Real User Costs and the Demand for Single-Family Housing" in Brookings Papers on Economic Activity, 1980,2, eds. W.C. Brainard and G.L. Perry (Washington, D.C.: The Brookings Institution, 1981) pp.401-444; Patric H. Hendershott and Sheng-Cheng Hu "Inflation and Extraordinary Returns on Owner-Occupied Housing: Some Implications for Capital Allocation and Productivity Growth" in House Prices and Inflation, eds. J.A. Tuccillo and K.E. Villani (Washington, D.C.: The Urban Institute Press, 1981), pp. 11-33; and Harvey S. Rosen and Kenneth T. Rosen, "Federal Taxes and Homeownership: Evidence from Time Series," Journal of Political Economy, 88 (1) (Feb., 1980), pp. 59-79.

22. This expression is simpler than the equivalent expression for the U.S. The U.S. expression must recognize the tax deductibility of mortgage interest and property taxes, and the taxability of capital gains subject to possible deferment via a home roll-over and the tax exemption on the first $125,000 of capital gain for persons over 55.

23. For evidence of this in Canada see Jack L. Carr and Lawrence B. Smith, "Money Supply, Interest Rates and the Yield Curve," J. Money, Credit and Banking, 4(3)(Aug., 1972) pp. 582-94, and Jack L. Carr, James E. Pesando and Lawrence B. Smith, "Tax Effects, Price Expectations and the Nominal Rate of Interest" Economic Inquiry 14(2)(June, 1976), pp. 259-69.

24. This occurs since the sum of the mortgage and homeowner equity equals the value of the home. However, this ignores a number of effects, such as the "tilt" or cash flow problem and possible increase in the variance in the expected house price inflation as inflation increases, which affect housing demand and may cause user costs to rise by restraining the actual and expected increase in house prices.

25. The "tilt" problem arises from an increase in the anticipated inflation rate because increased inflation affects the level of interest rates but only the rate of change of household income. As a result, although increased inflation does not alter the present value of future mortgage payments, it changes the time profile of real mortgage payments, increasing the income to payment ratio in the early years and reducing it in the later years. For a discussion of this effect see James R. Kearl, "Inflation, Mortgages and Housing," J. Political Economy 87 (5) (Oct., 1979). pp. 1115-38, and Kenneth T. Rosen, "The Housing Crisis and the New Homeowners Incentive Plan," J. American Real Estate and Urban Economics Association 5 (3) (Fall, 1977), pp.366-78.

26. For a discussion of the impacts of inflation and the tax structure on homeownership preferences see Douglas B. Diamond, Jr., "A Note on Inflation and Relative Tenure Prices," pp. 438-50; Frank de Leeuw and Larry Ozanne, "The Impact of the Federal Income Tax on Investment in Housing," Survey of Current Business (Dec., 1979), pp.50-61; Patric H. Hendershott, "Real User Costs and the Demand for Single-Family Housing," pp. 401-444; Harvey S. Rosen and Kenneth T. Rosen, "Federal Taxes and Homeownership: Evidence from Time Series," pp. 59-75; and Yoram Weiss, "Capital Gains, Discriminatory Taxes and the Choice Between Renting and Owning a House," J. Public Economics, 10(1)(Feb., 1978), pp. 45-56.

27. This conclusion is likely to hold even if mortgage costs are variable since homeowner equity increases with inflation and the interest foregone on this equity is not taxed. The relative decline is larger if the tax system is not indexed and inflation causes the household to move through marginal tax brackets. In the U.S. the benefit is further enhanced by the deductibility of mortgage interest and property taxes. Since these deductible items rise with inflation and the tax system is not indexed the relative benefits of these deductions rise with inflation.

28. Calculated from Smith, Anatomy of a Crisis, p. 36, and Canada Mortgage and Housing Corporation, Canadian Housing Statistics, 1981, p. 9.

29. In Ontario, for example, the province provided a $1500 cash grant to first time home purchasers, and the federal government provided an additional $500 cash grant to first time home purchasers of a newly constructed dwelling, subject to a price constraint. The combined grants represented 4-5 percent of the price and 20-80 percent of the required downpayment for an average priced home. For a discussion of this and other programs, see Smith, "Canadian Housing Policy in the Seventies,"

pp. 338-52, and George Fallis, Housing Programs and the Distribution of Income in Ontario (Toronto: University of Toronto Press for the Ontario Economic Council, 1980).

30. A partial offset to this was the Assisted Rental Program (ARP) introduced in 1975, which provided interest reducing loans for the construction of rent controlled multiple rental dwellings.

31. Similar loans were also made under ARP.

32. For an analysis of this tax see Lawrence B. Smith, "The Ontario Land Speculation Tax: An Analysis of an Unearned Increment Land Tax," Land Economics, 55(1)(Feb., 1976) pp. 1-12.

33. Actually, a form of rent control existed prior to 1975 in Quebec, and rent control was introduced in British Columbia and promised in Ontario in 1975 prior to the Anti-Inflation Program.

34. Lawrence B. Smith and Peter Tomlinson, "Rent Controls in Ontario: Roofs or Ceilings?" J. American Real Estate and Urban Economics Association, 9(1)(Summer 1981) pp. 93-114.

35. An exception occurs if renovation or upgrading expenditures create an exemption from controls.

36. Walker, "What are the Facts?" p. 25.

37. Based on an index of rental apartment expenses estimated by weighting the property tax, repair and maintenance, insurance, utility and fuel, and miscellaneous shelter cost components of the consumer price index by .20, .10, .01, .12 and .05 respectively.

38. Ann Dougherty and Robert Van Order, "Inflation, Housing Costs, and the Consumer Price Index," American Economic Review, (March, 1982), pp. 154-164; and Larry Ozanne, Expanding and Improving the CPI Rent Component" in House Prices and Inflation, eds. J.A. Tucillo and K.E. Villani, (Washington, D.C.: The Urban Institute Press, 1981), pp. 109-21.

39. Smith and Tomilson, "Rent Controls in Ontario," pp. 93-114.

40. Since the present value PV can be defined as

$$PV = \frac{R_1(1+\dot{p})}{(1+i)(1+\dot{p})} + \frac{R_2(1+\dot{p})^2}{(1+i)^2(1+\dot{p})^2} + - - - - - + \frac{R_n(1+\dot{p})^n}{(1+i)^n(1+\dot{p})^n}$$

$$+ \frac{S_n(1+\dot{p})^n}{(1+i)^n(1+\dot{p})^n},$$

where $R_j$ is the expected rent at the end of the $j^{th}$ period with no expected inflation, $S_n$ is the residual or scrap value at the end of period n, i is the discount rate with no expected inflation, and $\dot{p}$ is the expected inflation rate, it is clear that a change in the expected rate of inflation if incorporated into both rents and the discount rate will leave the present value unaffected.

41. Although inflation does affect profitability and rental construction in other ways, as discussed in section IIIB.

42. However, the nominal rate did rise sharply to 14.32 percent in 1980 and 18.15 percent in 1981.

43. This impact, if any, would have been relatively small because of the relatively small increase in the nominal rate of interest in the 1970s, and because the "tilt" effect only affects cash flows and not expected profitability, and most Canadian developers had sufficient internal and/or external financing to be unconstrained by this.

44. The shift to short term variable rate financing for homeowners should have somewhat offset this by increasing the risks associated with homeownership and reducing household preferences for homeownership.

45. This point is made by Lowry, "Rental Housing in the 1970s," p. 28, and by Rosen "The Affordability of Housing in 1980 and Beyond," p. 10.

46. Calculated from Canada Mortgage and Housing Corporation, Canadian Housing Statistics, 1981, pp. 74 and 76.

47. For a discussion of these requirements see Lawrence B. Smith, "Federal Housing Programs and the Allocation of Credit and Resources" in Government in Canadian Capital Markets: Selected Cases, J.E. Pesando and L.B. Smith (Montreal: C. D. Howe Research Institute, 1978) pp. 20-67, and Task Force on Canada

Mortgage and Housing Corporation, Report on Canada Mortgage and Housing Corporation (Ottawa: Canada Mortgage and Housing Corporation, 1980).

48. Based on appropriations for Public Housing, Federal-Provincial Housing, and Non-Profit Corporations and Cooperative Housing. If ARP is included the decline is 78 percent.

49. For an excellent discussion of rent controls see Rent Control: Myths and Realities, eds. W. Block and E. Olsen (Vancouver: The Fraser Institute, 1981).

50. Philip W. Brown, "The Demographic Future: Impacts on the Demand for Housing in Canada, 1981-2001" in Symposium on North American Housing Markets into the 21st Century, eds. G. Gau and M. Goldberg (Cambridge, Mass.: Ballinger Publishing Co.) forthcoming.

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