

RESEARCH REPORT



Housing Access and Affordability Overview Report



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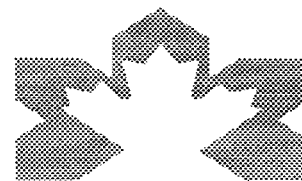
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HOUSING ACCESS AND AFFORDABILITY

OVERVIEW REPORT



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**HOUSING ACCESS AND AFFORDABILITY
OVERVIEW REPORT**

May, 1994

This report summarizes the studies that were carried out by a number of consultants on Housing Accessibility and Affordability. These projects were funded by the Canada Mortgage and Housing Corporation, but the views expressed are the personal views of the author(s) and the Corporation accepts no responsibility for them.

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HOUSING ACCESSIBILITY AND AFFORDABILITY

INTRODUCTION

In June 1992, Ministers of Housing instructed the National Housing Research Committee (NHRC) to look into barriers to housing accessibility and affordability in Canada. Over the past year, a two-part research program, designed to improve the information base available on these critical questions, was carried out. Part I of the research program dealt with housing accessibility, and Part II with housing affordability.

Affordability normally involves a relationship between costs and incomes. In the case of housing, it generally describes a relationship between housing costs - mortgage payments, rents, property taxes, utilities - and household income. The research program did not include analysis of the income side of the housing affordability equation. Mortgage costs can be divided into two components: housing prices are what mortgages apply to, while housing finance determines the form mortgages take. The housing finance component of mortgage costs was treated under the heading "housing accessibility", while the housing price component of mortgage costs was considered under the heading "housing affordability".

CMHC has in recent years modified mortgage qualification criteria - for example, it now allows 95% loan-to-value mortgages - and has experimented with new forms of mortgage instruments, in particular Indexed-Linked Mortgages. The concern with housing accessibility was to identify other types of mortgage instruments or other changes that could be made to mortgage qualification criteria, which could make homeownership accessible to a greater number of Canadians. A consultant was commissioned to carry out this work.

The central concern with housing affordability is housing prices which are set by the interplay of supply and demand. The research focused on "supply side" factors which are viewed to contribute to high housing costs or which prevent the development of more affordable housing. In Canada and the United States, there was a growing concern in the late 1980's regarding the effect regulation was having on house prices and rents. Many of these concerns were based on anecdotal evidence or guesswork, and there was little hard evidence to support some of the claims being advanced. It was accordingly decided to test or gather factual

information on a range of claims about how regulation, broadly understood, affected the supply of affordable housing.

The research program focused on six key "supply side" factors identified by the Committee.

1. Municipal Finance:

Municipal financial exactions are sometimes reputed to increase housing costs and preclude the development of more affordable housing. As a first step, the evolution of municipal expenditures and revenues over a twenty year period was reviewed and analysed to determine what possible impacts municipal finance trends might be having on housing affordability.

2. Regulatory Processes:

New housing developments are subject to the regulatory process. The process is viewed to substantially increase the time and expense involved in housing development. A survey was carried out of 10 Canadian municipalities to gather information on the nature of the regulatory processes each city had in place and the time normally required for development approvals. In addition, the consultants were asked: to identify the major changes that had been introduced in the regulatory processes of each municipality over the last twenty years; and to examine the literature for examples of "streamlining" initiatives that had been implemented elsewhere.

3. Quality Standards:

There is a perception that regulations which guide housing construction and the installation of land servicing components, increase the cost of new housing and preclude the development of more affordable housing forms. Quality standards were identified as being of two types: housing standards - regulations which guide the standard of quality for constructing a house - and property standards - regulations concerning the design of communities and infrastructure specifications. Two fact-finding studies were carried out in order to determine how quality standards had changed over time.

Housing Standards: consultants surveyed 15 Canadian municipalities to determine the major changes that had taken place in housing standards over the last ten years (1982 to 1992) and to evaluate the impact of these changes on housing affordability in a qualitative manner.

Property Standards: consultants surveyed 10 Canadian municipalities to obtain information on

property standards in place in 1952 and 1992 in order to determine the extent of changes over time. They were also asked to identify initiatives in Canada and abroad which promote alternative development standards for affordable housing.

4. Industry Efficiency:

Housing prices are also a function of how efficiently the building industry can produce new homes. Previous work by Clayton Research Associates entitled The Evolution of the Housing Production Process, 1946-86 evaluated the efficiency of the building industry and the impact of technological change on housing production.

5. Property Pricing:

Government intervention in housing markets are viewed by some as either restraining the production of affordable housing or as being insufficient to ensure that the market produces housing for a range of incomes. Under government interventions in property pricing, two pieces of research were identified:

Hypotheses testing about rent controls: a series of hypotheses submitted by CMHC about the effects of rent controls on the rental housing market were tested through econometric statistical analysis.

Case studies of government influences on property pricing: this study included an inventory of government initiatives in Canada, both past and present, designed to influence residential land prices.

6. National Economy:

The Canadian tax regime is often viewed as discouraging investment in rental properties. A consultant was asked to provide a compendium of all federal tax measures since 1972 that have been directed at rental housing investors, and to outline the different criteria and approaches that could be used to evaluate the costs and benefits of these measures on rental housing.

All the research commissioned by CMHC has been completed and is published under separate cover. This report sets out the purpose, scope and the main findings and conclusions of each of the research studies.

In keeping with the organization of the NHRC research program, this report is divided into two major parts: Part I deals with housing accessibility, and Part II with housing affordability. Each part begins with an introduction to the topic, followed by a presentation of the research project or projects in summary form.

1.1 HOUSING ACCESSIBILITY

1.2 SUMMARY OF RESEARCH

Feasible Financing Alternatives, prepared for CMHC by Clayton Research Associates, September, 1993

Purpose:

- . to identify alternative ways to finance home purchases or rental housing acquisitions;
- . to examine the feasibility of the financing options identified; and
- . to specify the key attributes of the financing options which could enhance their operational and market success.

Scope:

The study focused on financial options which have a reasonable chance of fitting into the existing Canadian finance system. It identified options in five key areas:

- a) options which could reduce financing costs (i.e., reduce mortgage interest rates);
- b) options which could reduce the size of initial mortgage payments (i.e., flexible debt repayment options);
- c) options which could reduce downpayment requirements (i.e., lower borrower equity options);
- d) options for new funding sources (i.e., using RRSP's to finance mortgages or downpayments); and
- e) new forms of secured lending (i.e., reverse mortgage lending).

Although the study does evaluate the feasibility of the various options identified, more rigorous tests of feasibility and market acceptability are required.

Major Findings and Conclusions:

1.2.1. Options to Lower Financing Costs

The study identified two possible ways of lowering financing charges: waiving prepayment privileges and the use of variable rate mortgages.

1. Option for borrowers to waive prepayment privileges on mortgages

- . Currently, up to 10 percent of the outstanding principal on an NHA insured mortgage can be paid-off on the anniversary date of the mortgage and, after three years, the outstanding principal can be paid-off in whole or in part, subject to a three month interest penalty on the prepayment amount. Conventional mortgage loans with terms greater than five years can, by law, be paid-off at any time after the first five years, subject to a three months of interest penalty on the outstanding balance.
- . Lenders charge slightly higher interest rates due to the risk they must assume for prepayment. Based on interest rate differentials which currently exist between standard NHA loans and social housing loans, which offer no prepayment privileges, the study estimates that prepayment privileges add approximately 360 basis points to the standard mortgage interest rate. Assuming a \$100,000 mortgage, amortized over 25 years, and an interest rate of 9.0 percent on a five-year term mortgage, a reduction of 0.36 percentage points would reduce monthly payments from \$828 to \$804. This would translate into interest savings of \$7,058 if held constant over the full amortization period of the loan.
- . Under this option, borrowers could elect to waive prepayment privileges for the term of the loan in return for a lower interest rate. Alternatively, the lender could be compensated for prepayment by raising the penalty to the present value of the interest foregone, but this is less desirable since it still allows prepayment. The two ideas could be combined, however, to overcome one of the problems generic to non-prepayable mortgages: how can borrowers extricate themselves from their mortgage when they sell their home? This could be dealt with by specifying the present value of the interest foregone as the prepayment penalty, but at the same time limiting prepayments to this eventuality alone.
- . This option could be implemented by making changes to the Interest Act and to the regulations for mortgage insurance under the NHA.

2. Variable Rate Mortgages (VRMs)

- . Variable Rate Mortgages (VRM) transfer all or part of the

risk associated with interest rate fluctuations from the lender to the borrower. Unlike fixed rate mortgages, the interest charged for the mortgage loan is not fixed at take-out, but is adjusted periodically to reflect fluctuations in general interest rates.

- . In return for assuming the risk of interest rate fluctuations, the borrower is offered an interest rate considerably lower than those available for fixed rate mortgages at the time the mortgage is made. In Canada, when a five-year term mortgage was at 8.95 percent and a one-year term was at 7.25 percent, a Variable Rate Mortgage could be had at 5.75 percent.
- . If interest rates decline over time, mortgage costs will be reduced even further; however, if interest rates increase, the danger is that mortgage costs will climb more than the household can afford to pay. This is why CMHC requires borrowers to qualify at a minimum for a three-year term mortgage interest rate with a maximum loan-to-value ratio of 85 percent in order to obtain loan insurance on VRM mortgages. Also in an effort to deal with this concern, certain financial institutions have introduced "capped" VRMs, wherein the level to which the mortgage interest rate can rise is capped at a certain percentage. These mortgage instruments do not transfer the full risk of interest rate fluctuations to the borrower and do not consequently offer as an interest rate reduction (currently 1.75 percentage points above the full VRM rate in the case of a VRM with an interest cap of 9.5 percent for a five year term).

Feasibility Analysis for options to lower financing costs:

- . The Clayton study suggests that the most feasible course of action to reduce interest rate charges would be to give borrowers the option of waiving prepayment privileges.
- . This would assist homebuyers, but would not impact rental properties, since mortgages on these properties are treated as commercial loans and commercial loans do not have prepayment privileges.
- . The study does not see any need for a public role in the development of VRMs. Financial institutions are developing these instruments on their own without the need for public involvement.

1.2.2. Flexible Debt Repayment Options

The study identified three types of financial instruments which could produce lower mortgage payments in the initial years of homeownership by adjusting the repayment schedule. These are: Price-Level Adjusted Mortgages, Graduated Payment Mortgages and Shared Appreciation Mortgages.

1. Price Level Adjusted Mortgages (PLAMs)

- . Like Graduated Payment Mortgages, Price Level Adjusted Mortgages (PLAMs) can reduce mortgage payments in the early years of ownership and then raise them gradually over time as the borrower's ability to pay presumably increases. In a pure PLAM, the interest rate on a mortgage is reduced to the real rate of interest (i.e., the current interest rate minus the rate of inflation). The principal outstanding is adjusted every year to reflect the inflation rate. The principal therefore increases with the rate of inflation every year, ensuring that its value remains constant in real terms throughout the life of the mortgage.
- . Borrowers benefit from significant reductions in mortgage costs in the early years of the mortgage because the interest rate is lower than on standard mortgages. This interest rate is, however, applied to a principal outstanding that is increased by the rate of inflation every year, so that mortgage payments steadily increase every year as well. Normally, household incomes can also be expected to increase by the rate of inflation, so that the Gross-Debt-to-Service (GDS) ratio can be expected to remain unchanged as mortgage payments increase.
- . At first, the principal outstanding increases faster than payments, which is known as the "ballooning effect". Eventually, however, payments increase to the point where they start paying down the principal. The mortgage ends up being retired over the same amortization period as a standard loan.
- . There are a number of different ways to structure a PLAM. CMHC's Index-Linked Mortgage, which was used in the now terminated Co-operative Housing Program, is one example of how a PLAM can be structured. Variations depend principally on how the question of "tilt" is dealt with. Tilt refers to the relative easing of housing costs over time and is generic to Equal Payment Mortgages. As income grows while mortgage payments remain relatively fixed, the ratio of housing costs relative to income is progressively reduced. To measure tilt, incomes are usually assumed to grow at the same rate as inflation.
- . If incomes are assumed to grow at the rate of inflation, a pure PLAM model contains no tilt, since mortgage payments increase with the rate of inflation as well. Certain variations, however, introduce a degree of tilt in the PLAM by adding more of the inflation adjustment to the interest component and less to the principal. Some part of the annual inflation adjustment is added to the real rate of interest and the principal is adjusted only by that part of

the inflation rate not included in the interest rate. CMHC's ILM program, for instance, had 2% tilt, since 2 percentage points of the inflation rate adjustment every year was included in the interest calculation, while the principal was adjusted by whatever fraction of the inflation rate remained. This results in higher initial mortgage payments relative to a PLAM with no tilt, but the ballooning effect is minimized.

- . Clayton Research and Associates accordingly identified three possible types of PLAM schemes:
 - a pure (no tilt) PLAM: the full inflation adjustment is applied to the outstanding principal while the interest rate remains the real rate of interest;
 - a modified (partial tilt) PLAM: part of the inflation rate adjustment would be included in the interest rate calculation and the remainder to the principal outstanding;
 - a full-tilt PLAM: the interest rate would be set, as with standard mortgages, to reflect the expected rate of inflation. However, at the end of a term (say five years, assuming a five-year term mortgage) the principal would be adjusted to reflect the difference between the expected rate of inflation, on which the interest rate had been calculated, and the actual rate of inflation over that period. If the inflation rate had been more than expected, the principal would be increased to reflect the difference. If inflation had been lower than expected, the principal would be decreased to reflect the overpayments that had been made.

2. **Graduated Payment Mortgages(GPMs)**

- . GPMs adjust the repayment schedule to lower mortgage payments in the early years of a mortgage while increasing them gradually over the life of the mortgage. In the early years, the mortgage principal balloons as payments are insufficient to pay the interest and principal due in full and the shortfall is added to the principal outstanding. Eventually payments increase to the point where the principal begins to be paid-off.
- . The major difference between a PLAM and a GPM is that with a GPM the rate of increase of payments and mortgage principal is programmed in advance, in line with anticipated rates of inflation and anticipated increases in borrower's income. PLAMs, on the other hand, adjust

payments and principal in line with the actual rate of inflation.

- . In the late 1970's and early 1980's, CMHC experimented with a form of GPM. CMHC's experience was not very satisfactory and the program was discontinued due to losses experienced by the Mortgage Insurance Fund.
- . Given CMHC's past experience with GPMs and the threat of negative equity (i.e., loan amount exceeding value of the property) due to the ballooning of the principal in the early years of the mortgage, a GPM mortgage would likely require a larger downpayment than would a comparable equal payment mortgage.

3. Shared Appreciation Mortgages (SAMs)

- . Shared Appreciation Mortgages (SAMs) allow a non-occupant investor, which could be the lender, to provide part of the financing needed to buy a property in return for a share in the appreciation of the property. SAMs can be used either:

- to provide all or part of the funds needed for a downpayment:

For example, a \$100,000 home requiring a 10 percent downpayment might be purchased by taking out a standard Equal Payment Mortgage of \$90,000, repayment of which would be assumed by the borrower. A SAM for \$10,000 would be negotiated to cover the downpayment, in return for which the lender would be entitled to a fixed percentage (say 40 percent) of any appreciation in the value of the property,

or

- to lower the interest rate on a standard fixed rate mortgage:

It is immaterial from the lender's point of view whether a \$90,000 loan is made at 8.95 percent interest with a \$10,000 equity investment at no interest but with an agreement to obtain 40 percent of appreciated value of the dwelling, or whether the loan is for \$100,000 at an interest rate of 7.67 percent with the same agreement regarding a 40 percent share in appreciated value - the results are the same.

- . To be marketable, SAMs must offer the lender a competitive rate of return. Assuming alternative investment returns of 8.95 percent compounded annually, the SAM product would have, at a minimum, to promise to match this yield. An investment of \$10,000 would in this event have to return at least \$5,350 after five years to remain competitive. If housing values increased 2% per year, a \$100,000 home would appreciate by \$11,450 over five years. To be attractive, the SAM would, under these circumstances, have to give the investor 46.7 percent of the appreciated value of the dwelling ($\$5,350/\$11,450$). The calculation of the investors/lenders share of the appreciation depends a great deal on investor expectations of increases in home values. Since these vary greatly from market to market, SAMs would likely have to offer different share distributions in different markets.
- . It is a feature of SAMs that the value of the initial investment keeps growing since, in the absence of repayment, interest keeps compounding as the years go by. SAMs are usually structured to be repaid within a relatively short period because otherwise the value of the SAM debt can become larger than the balance on the first mortgage.
- . There are a number of ways to construct SAM's. Two possible options are:
 - the fixed initial payment option: the borrower repays the principal mortgage in equal monthly installments, and lets the SAM debt accumulate. After a period of time - say five or ten years - the SAM debt is paid off and added to the mortgage. The monthly installments are recalculated to reflect the higher principal owing without adjusting the amortization period.
 - the graduated payment option: the borrower repays the principal mortgage using graduate payments, which are initially set at the same rate as equal monthly payments would be, but which increase by a pre-determined amount each year. The additional payments are used to reduce the amortization period on the principal mortgage. At some point, say ten years, the SAM debt (or lender's equity investment), which has been allowed to accumulate until this point, is paid off and/or added to the mortgage principal for the remainder of the amortization period.
- . SAMs end up doing much the same thing as PLAMs and GPMs: payments are initially set lower than they would normally be considering the overall debt, but at some point payments are adjusted upwards.

Feasibility analysis of flexible debt repayment options:

- The study concludes that Price-Level Adjusted Mortgages (PLAMs) are superior to either Graduated Payment Mortgages (GPMs) or Shared Appreciation Mortgages (SAMs) in that they are less complex and likely much more marketable.
 - The mortgage payments of a GPM increase according to a pre-arranged schedule that is difficult to adjust if actual rates of inflation and income gains do not match the anticipated increases. This is less of a problem with PLAMs which base mortgage payment increases on actual increases in the rates of inflation.
 - SAMs would be inappropriate for homebuyers because of their extreme complexity and because they would have to be retired fairly quickly to avoid the ballooning of the SAM debt. Moreover, when it is time to pay-out the SAM debt, there could be difficulties in agreeing on the market value of the home. This would be a critical but contentious issue dividing the homeowner and the SAM lender. The study does not recommend the use of SAMs for homeowners in Canada. SAMs would be more appropriate for commercial lending, in cases where the lender might want to become a part owner of the property in return for a share in the cash flow and in the appreciated value of the property at some point in the future. SAMs therefore have some potential for rental housing.
- The study argues that financial markets are receptive to investments offering secure real rates of return. The Government of Canada has recently started issuing real interest bonds, which are structured much like PLAMs. They offer a real interest rate on bonds whose amount is adjusted by the rate of inflation every year. The study suggests that financial markets have been very receptive to real interest bonds and would be just as receptive to PLAMs, providing that, unlike the ILM program, PLAMs are offered on the wider market and readily securitizable.
- However, Clayton Research does not consider that PLAMs, particularly the pure or partial tilt PLAMs, would interest many homebuyers. Most Canadian homebuyers would be leery of having the principal balloon and having mortgage payments increase every year for the life of the mortgage. Moreover, the ballooning effect, and the threat of negative equity that this implies, would likely mean that financial institutions would require larger downpayments for PLAMs than for standard mortgages. This would neutralize any

benefits lower initial mortgage payments present in terms of improved access to home ownership. Only full-tilt PLAMs could possibly interest some homebuyers ready to take risks on the course inflation rates will take over the term of the mortgage.

- . The principal area where PLAMs could feasibly be used is to finance rental housing acquisition and development. Negative cash flow in the early years of a rental investment is the principal problem confronting investors in this sector. No-tilt and partial-tilt PLAMs offer the prospect of eliminating or at least significantly reducing this negative cash flow problem. PLAMs would also be of interest to the third sector because, with lower mortgage payments in the initial years, they significantly reduce subsidy costs.

1.2.3. Lower Borrower Equity Options

FEASIBILITY ANALYSIS:

- . The study concludes that there is little room to enhance access to housing through lowering downpayment requirements. First-time homebuyers already have access to mortgages at a 95 percent loan-to-value ratio and experience suggests that it would not be prudent to lower this ratio any further. Move-up homebuyers do not need changes in maximum loan to value ratios, while the third sector can already obtain mortgages at 100 percent financing through government guarantees.
- . Sweat equity was considered as a possible way to improve access to homeownership. This would involve allowing all or part of the downpayment to be provided in labour rather than cash. The study concludes that this idea would have very limited application, since it would be restricted essentially to buyers or builders of new homes - as opposed to resale homes - who had some construction skills. At any rate, the authors maintain that the cash downpayment should at all times amount to at least 5 percent of the value of the home.

1.2.4. New Funding Sources

Under this heading, the study examined how Registered Retirement Savings Plans (RRSPs) might be transformed into a more permanent instrument of housing finance.

1. Use of RRSP Funds for Home Purchases

- . At the present time, there are two ways RRSPs can be used as a source of funds to purchase a home:
 - Self-mortgaging through a self-directed RRSP: a mortgage is an eligible RRSP investment, provided the mortgage is insured. In a self-directed RRSP, individuals may invest their RRSP funds in their own mortgage, and repay the investment in the same way as they would to any mortgage but to their own RRSP. To be financially viable, a minimum of at least \$25,000 must be invested in the home purchase.
 - Home Buyers' Plan: since 1992, the federal government has allowed holders of RRSP funds to withdraw up to \$20,000 for the purchase of a home, with no immediate tax consequences. Commencing in 1995, funds withdrawn are to be repaid to the RRSP over a 15 year period, but with no interest. Failure to do so results in 1/15 of the funds withdrawn to be taxed every year. The program is due to terminate on March 1, 1994. The current Home Buyers' Plan was not designed to allow individuals to use their RRSPs to save for a downpayment but was intended rather to unleash existing RRSP savings to stimulate the economy.
- . The study proposes that RRSPs should be available as a vehicle through which first-time homebuyers could save to purchase a principal residence. Since RRSPs are a retirement savings plan, any funds withdrawn from the RRSP for home purchases should ideally be treated as an investment and repaid with interest. The study identified two possible ways to structure an RRSP program for home purchases while at the same time maintaining the integrity of the RRSP investment:
 - Treat the RRSP investment as an equity investment: the RRSP investment then takes on the same qualities as a Shared Equity Mortgage discussed previously;
 - Treat the RRSP investment as a Deferred Payment Mortgage (DPM): in this event, the RRSP is treated as a mortgage which accumulates compound interest, until such time as the homebuyer assimilates it to his first mortgage and starts paying it off; interest on the DPM could be set either at the same rate as the first mortgage or at the prevailing GIC rate.
- . In the case of a DPM type arrangement, there is a question as to whether or not the RRSP investment (DPM) should

be insured. If both the first mortgage and the RRSP/DPM investment are insured, then it would likely be necessary to require at least a 5 percent downpayment from the homebuyer in addition to the RRSP funds invested. If such additional equity is not required there might be significant loan insurance losses and/or prohibitive mortgage insurance premiums on the DPMs.

- . To prevent the RRSP/DPM investment from ballooning under the effects of compound interest, the RRSP/DPM should be rolled into the first mortgage within five or six years.

Feasibility analysis for the use of RRSP funds for home purchases.

- . The study concludes that a DPM arrangement would be the most feasible way to treat RRSP funds for home purchases.
- . The program should be limited to first-time homebuyers, should be restricted to 25 percent of the value of the dwelling, and should allow deferment of payments only for the first five years.
- . Consideration should be given to a non-insured DPM, but if it is to be insured, it would be important to require some downpayment from own sources.
- . Preferably, the interest rate on the DPM would be the same as the first mortgage, but alternatively it could be set at the GIC rate.

1.2.5. New Forms of Secured Lending

1. Reverse Mortgages

- . The study identified two principal ways reverse mortgages can be structured:
 - DPM/life annuities approach: this option involves re-mortgaging the home through a Deferred Payment Mortgage, which eliminates the need to make mortgage payments. The homeowner is then required to place the proceeds in a life annuity, which provides a steady stream of income to the homeowner. The amount of the DPM is calculated based on the life expectancy of the owner and other parameters. The mortgage cannot by law exceed 75 percent of the value of the property, which in the case of a DPM means the value of the property at the time it is expected to be sold. Since a DPM accumulates interest at a compound rate, there is a risk that it may exceed the value of the home should

the homeowner live longer than anticipated. The interest rate on the DPM is consequently usually higher than on regular long term mortgages (11 percent when a standard five-year mortgage was at 8.95 percent). The loan rarely exceeds 25-30 percent of the value of the home. The level of annuity payments made from the proceeds will depend on the life expectancy of the homeowner and other factors, but can be quite low relative to the size of the DPM. Upon the death of the homeowner, the house is sold and the DPM retired in full. Whatever is left goes to the estate.

- line of credit approach: the major difference with the DPM approach is that the homeowner is not required to purchase an annuity with the proceeds of the mortgage. Instead, a line of credit is opened with the limit determined by the value of the home, and life expectancy of the owner. The owner may withdraw from the line of credit, either as a lump sum or in parts over time. Since there is a danger that the proceeds may be spent faster than anticipated, the loan-to-value ratio of the loan is usually less than with the DPM approach. Moreover, the line of credit arrangement is usually established for a fixed period (say 10 years). Payments are deferred for that period. If the homeowner dies before the period is up, the home is sold and the amount owing to the line of credit is paid. If the homeowner is still alive at the end of the period, the home will have to be sold anyway to repay the line of credit. Since there is less uncertainty about when reimbursement will be made, the rate of interest on the line of credit is lower than with a DPM arrangement.
- The study mentions reverse shared appreciation mortgages as another possible way to structure reverse mortgages but did not examine this option in detail. This would involve establishing a deferred payment reverse mortgage in an amount equivalent to a given share in the value of the home at the point when the home is likely to be sold.

Feasibility analysis of reverse mortgages:

- The study supports most of the proposals put forward by CMHC in consultations currently taking place on this matter. The use of mortgage insurance would be particularly important to extend the line of credit approach to Canada. Lenders could then be assured of repayment, in the event that a homeowner out-lived the term of the arrangement, without having to force foreclosure.

1.3. CONCLUSIONS

Relatively little can be done to further improve access to homeownership by simply modifying housing finance instruments. First-time homebuyers can already purchase a home with as little as 5 percent downpayment. Mortgage interest rates are now at the lowest they have been in over 20 years, and, while real rates of interest remain high in historical terms, they too are falling.

Clayton Research Associates nonetheless identified four financial alternatives that could feasibly be implemented to improve housing accessibility:

- giving borrowers the option of waiving prepayment privileges in return for somewhat lower interest rates;
- introducing PLAMs or Index-Linked Mortgage instruments on a wider scale, particularly for rental housing acquisition;
- opening up RRSPs as vehicles for first-time homebuyers to save for a downpayment; and
- providing mortgage insurance for line-of-credit type reverse mortgages, as proposed by CMHC.

In addition, the study mentions other instruments, including Variable Rate Mortgages, Shared Appreciation Mortgages and PLAMS, as possible options to reduce mortgage costs.

The consultant views downpayments as necessary in order to reduce the risk of default. However, given that 100% loan-to-value ratios are used elsewhere in the world, such as in Britain, it may be worth exploring whether downpayments are truly necessary in Canada. If cash downpayments could, at least in some circumstances, be dispensed with, it would be possible to have a wider range of financial innovations to encourage homeownership. Other mortgage qualification requirements, such as GDS ratios, may also merit further review.

CMHC is currently engaged in consultations on reverse mortgages and the Clayton report endorses the positions developed by CMHC for these consultations. Applying mortgage insurance to reverse mortgages would likely make them much safer instruments for both the homeowner and financial institutions. This is one of the more promising avenues to pursue in terms of innovations to the Canadian housing finance system.

2.1 HOUSING AFFORDABILITY

2.2 MAJOR ISSUES

For some time now, concerns have been growing that the regulatory framework governing housing development has contributed to increasing housing costs and is preventing the development of "affordable housing". Since the 1980's, attention has focused, in both Canada and the United States, on the impact that regulations were having on the housing industry's ability to provide affordable housing. In Canada for example, the province of Ontario implemented a policy in 1989, which requires municipalities to guarantee that at least 25% of new residential developments within their boundaries was dedicated to "affordable housing". The province has also abolished municipal by-laws which prohibit the development of accessory apartments.¹ British Columbia has also taken steps to encourage municipalities to provide for more affordable housing.² Through the Affordability and Choice Today (ACT) program, the Canada Mortgage and Housing Corporation (CMHC) is

¹The Planning Act of Ontario empowers the Minister of Municipal Affairs to issue "policy statements" which must then be considered by municipalities and other planning bodies in the formulation of Official Plans and the like. In 1989, the Ontario Minister of Municipal Affairs used this power to issue a "Land Use Planning for Affordable Housing Policy Statement" which, requires that at least 25 percent of new residential development within municipal boundaires be designated for affordable housing. The Policy was implemented in August 1990 and most major municipalities were given two years to alter their Official Plans and zoning by-laws to conform with its requirements. Ontario has also adopted a policy of using surplus provincially-owned land for housing. Where government lands are involved, the province now requires 35 percent of the development to be devoted to social housing, 35 percent to affordable homeownership housing, and 30 percent to market housing. In the fall of 1992, Ontario also abolished municipal regulations which prohibit accessory apartments. Bill 90 allows the development of basement suites and accessory apartments and also makes it easier to build garden suites.

²British Columbia established a two-person Provincial Commission on Housing Options in June 1992. The Commission submitted its report on December 15, 1992 and made several recommendations on how to encourage the development of affordable housing. Recommendations required municipalities to pre-zone for all types of residential development, to establish affordable housing targets, to ensure an adequate supply of serviced land for new developments and to levy Development Cost Charges on a per square foot basis rather

(Footnote Continued)

supporting initiatives undertaken by Canadian municipalities and the building industry designed to reduce regulatory barriers to affordable housing.³ These actions are examples of the widespread concern with this issue and the importance governments are attaching to increasing the provision of "affordable housing" through changes in policies and regulations.

It was within this context that Ministers instructed the NHRC to examine barriers to housing affordability in Canada. A research program was developed in order to test or gather factual information on the following six key "supply side" factors which were identified by the committee:

1. Municipal Finance
2. Regulatory Processes
3. Quality Standards
4. Industry Efficiency
5. Property Pricing

(Footnote Continued)

than on a per unit basis. In 1993, the province moved to implement many of the Commission's recommendations. Bill 20 requires municipalities to address affordable housing, rental housing and special needs housing when developing Community Plans. Municipalities were given housing planning grants to assist them in this regard. Bill 57 clarified municipal powers with respect to the granting of density bonuses, enables municipalities to enter into housing agreements with developers to provide affordable housing, and requires municipalities to pre-zone land for residential development, which was not being done in British Columbia (B.C.). The province is also examining the development of a Public First Land Policy, through which surplus Crown land would be made available for housing purposes, reviewing Development Cost charges and Revenue Sharing formulas, and seeking to implement growth management at the regional planning level. B.C. is also reviewing policies on accessory apartments and developing programs on homelessness and the hard-to-house. Burnaby and Vancouver already require that 20 percent of major new residential developments be dedicated to social housing. In addition, Vancouver has set up the Vancouver Land Company (VLC) to develop affordable rental housing, on lands leased from the municipality.

³The ACT program was inaugurated in March 1990 and was originally established for a three year period with a budget of \$2.4 million. Administered jointly by the Federation of Canadian Municipalities, the Canadian Homebuilders' Association and CMHC, the program was designed to fund research on and implement innovative solutions to regulatory barriers to affordable housing. The program was extended for a further two years in March 1993 with a reduced budget of \$760,000.

6. National Economy

The following are summaries and general conclusions of the research that was carried out.

2.3 SUMMARY OF RESEARCH

2.3.1 MUNICIPAL FINANCE

The Implications of Trends in Municipal Finance For Housing Affordability, Prepared for CMHC by Harry M. Kitchen, Trent University, and Enid Slack of Enid Slack Consulting Inc., March, 1993

Purpose: To identify trends in municipal finances over the last twenty years and to determine their likely impact on housing affordability.

Scope: The consultants obtained and reviewed the financial statements of six Canadian municipalities - Vancouver, Edmonton, Calgary, Ottawa, London, Sherbrooke and Halifax. The review period covered 20 years or, for as far back as the data permitted. The expenditure and revenue statements of each municipality were organized into roughly comparable categories. The figures were translated into real per capita terms to remove the effects of inflation and population increases on municipal finances. The authors caution that there are major data limitations because reporting standards can change from year to year and because of differences in the distribution of responsibilities between municipal governments and local authorities, regional governments and provincial governments in different provinces.

Major Findings and Conclusions:

Municipal Financial Trends

- municipal spending to improve the quantity and quality of local services has not increased significantly in constant dollars per capita over the last twenty years.
- sources of revenues to finance expenditures have changed somewhat over time and this change may have affected housing affordability.
- the most important sources of revenue to municipalities in Canada, are property taxes and provincial transfers.
- while property taxes are a large revenue source in all of the cities studied they have not been increasing much over the last twenty years.
- provincial transfers have declined in three of the seven cities and not increased much in the other four.
- user fees are a relatively small source of revenue in comparison

to property taxes and transfers, but they have been growing rapidly, especially in Vancouver and Halifax.

- municipalities in three provinces use development charges to finance growth-related capital costs of new developments. Municipalities in other provinces use other charges for development.

Municipal Finance and Housing Affordability

- property taxes have had a slight impact on affordability over the last twenty years because they have increased modestly in five of the seven cities.
- it is anticipated that development charges have worsened housing affordability over the last twenty years, especially in rapidly growing cities such as Vancouver and Calgary.
- the impact of user fees on housing affordability is uncertain.

Implications of Financial Trends for Housing Affordability

- housing affordability may have been slightly worsened by recent trends in municipal finance.
- increased spending demands on municipalities, coupled with the continuing decline in provincial grants are likely to lead to higher property taxes, user fees and charges on developers in the future. This change in emphasis could worsen housing affordability in the future.

2.3.2 REGULATORY PROCESSES

Regulatory Processes Fact-Finding Project, Prepared for CMHC by Neilson-Welch Research Associates, December, 1992

Purpose: To obtain information on the nature of the steps and the time involved in the regulatory process for new housing developments in Canada; to identify municipal initiatives, both in Canada and abroad, designed to streamline the development approvals process.

Scope: The project was a fact-finding exercise and did not include analysis of the impact of the regulatory process on housing affordability. Officials were contacted in 10 Canadian municipalities - St. John's, Charlottetown, Halifax, Saint John, Laval, Mississauga, Winnipeg, Regina, Calgary and Surrey - and asked to complete a short questionnaire in order to obtain information on:

- the nature of the steps and the time involved in the land approvals process, the building approvals process and the

inspection process in each municipality for both single family and multiple high rise developments under three different development scenarios: a) for developments which do not conform to Official or Community Plans; b) for developments which do conform to Official or Community Plans; and c) for sites within an undesignated area;

- any variances to the process (e.g., fast-tracking for low-income housing); and
- major changes that had been made to the process over the last twenty years.

In a separate survey, information was gathered from the literature regarding municipalities in Canada and the United States which had put streamlining initiatives into place.

Major Findings and Conclusions:

1. The survey found that housing developments are subject to three basic approvals processes: the land development approvals process; the building approvals process; and the inspection process.

- (1) the land development approvals process

The land development approvals process reviews whether development plans conform to Official/Community Plans, zoning by-laws and development standards and ensures that the land is properly prepared for development. The process has three basic steps:

- Official/Community Plan amendment: if the proposed development does not conform to the Official or Community Plan, a developer must first obtain approval for an amendment to the Community Plan. This is very uncommon.
- Re-zoning Approval: Zoning by-laws state what type of developments are allowed in which area. If a proposed development does not conform to the zoning by-law, the developer must obtain approval for an amendment or variance to the by-law. This is very common. Land use by-laws are the key development control tool of Canadian cities.
- Subdivision Approval: This is the process whereby a parcel of land is divided into several lots or several lots consolidated into one. To obtain approval of subdivision, developers must submit detailed site plans to City officials and must usually also negotiate a "Servicing Agreement" with the City engineering department concerning the type and standard of

municipal infrastructure services that they agree to install. They are usually also required to post bonds with the City, which are returned to them as various services are installed. Subdivision approval is normally granted once servicing agreements are signed and bonds posted. Virtually all major housing developments must go through this process.

These steps must be completed in sequence, that is, re-zoning approvals cannot be granted before changes in Official/Community Plans are approved, and subdivision approvals cannot be granted until re-zoning approvals are obtained. Each step normally requires a separate application and application fee. It is, however, possible for the processes to take place concurrently. This means that re-zoning applications and Community Plan amendments can be considered at the same time. Subdivision approvals can also commence while re-zoning approval is still pending.

In some of the larger municipalities, a fourth major approval process is required of high-rise developments: the Development Permit approval process. The Development Permit is a mechanism used by some municipalities to control the design of buildings and landscape features.

(2) the building approval process

Once all land approvals have been obtained and lots properly serviced, the builder must obtain a building permit from the City before construction can begin. Building plans are submitted to City officials, who check to ensure that they conform to building codes and safety standards. A separate building permit must be obtained for each house or building in a development.

This process is not particularly time-consuming and often overlaps with subdivision approval.

(3) the inspection process

City inspectors visit the construction site at various stages during construction to ensure that the structure is being built to code. For normal wood-framed housing, the inspection process is fairly standard in all municipalities and generally involves the following stages:

- pre-construction stage: once the basement and foundations are complete, a municipal inspector checks features such as footings, storm out-fall and damp proofing before back-filling and framing can begin.

- framing and rough-in stage: once framing is complete but before insulation and dry-wall have been applied, qualified inspectors inspect the framing, the plumbing and the electrical wiring of the unit.
- insulation and heating stage: once insulation has been applied, qualified inspectors inspect the insulation work and the heating system.
- final inspection: once the building is completed or only finishing remains, a final inspection is made of all features, which results in the granting of an "occupancy permit".

At each stage, construction work cannot proceed to the next stage until inspections are successfully completed. However, inspections do not generally take an inordinate amount of time or unduly delay construction.

2. Building approvals and inspections processes were similar in all municipalities surveyed. The land development approvals process can, however, vary in important details from municipality to municipality. Generally speaking, the process involves the following steps:
 - In most of the larger cities, the land use development process starts with a pre-application review of the development proposal by City staff. The purpose is to determine if the concept is feasible and what approvals are required before formal application is made.
 - In most cities, plan amendments are processed before applications for zoning changes. But, in St. John's Newfoundland, zoning applications are started first to test public reaction.
 - An initial review is made of development plans by a variety of city and often provincial agencies. Subsequently a report is made to City Council or a Committee of Council in charge with development reviews.
 - The process then enters a stage of public consultation. Some municipalities have joint councilor/citizen committees in place to review development proposals. In all municipalities, at least one public hearing is held. Property owners near the proposed development are formally advised of the project and advertisements placed in the local newspapers for a public Council hearing on the issue. Interested parties are there given an opportunity to voice their concerns.

- Council makes a decision to approve or deny Official Plan amendments or zoning changes either at the public meeting or some time subsequently. Rezoning approvals usually require approval from the City only, but, in many provinces, Plan amendments require the approval of the province as well. In some provinces, formal appeal procedures exist over development approval decisions made by City Council.
- Subdivision approvals may be initiated at the same time as rezoning applications. But, since they require the submission of detailed site plans, which are expensive to produce, application for subdivision may not be made until after rezoning is confirmed.
- Site plans are reviewed by relevant City departments and provincial agencies, and, where applicable by regional governments. The most important step in the subdivision approvals process is the negotiation of a servicing agreement with the City whereby the developer agrees to install municipal infrastructure on the development site to certain specifications.

Once this agreement is concluded and bonds posted by the developer, subdivision is approved. Depending on the City, approval may be granted either by a City official or by City Council.

3. The time it takes for land development approvals varies considerably in the 10 communities surveyed. Typically, a re-zoning and subdivision approval takes from 16-24 weeks in St. John's, Newfoundland; 10-11 weeks in Charlettetown; 21-29 weeks in Halifax; 11-18 weeks in Saint John, New Brunswick; 44-52 weeks in Laval, Quebec (including the time taken for land servicing, which is provided by the municipality but paid for by the developer in Laval). The process takes a minimum of 64 weeks in Mississauga (it takes a minimum of 64 weeks for regional government to authorize subdivision approval, during which time all other approvals are usually processed). 20-40 weeks are required in Winnipeg; 18-24 weeks in Regina, 16-32 weeks in Calgary, and a minimum of 52 weeks in Surrey, British Columbia. Amendments to the Official Plan, if required, would in most communities add several weeks to the approvals process. Building approvals are often processed concurrently with subdivision approvals and do not therefore necessarily add to the total time taken to complete the approvals process. According to the survey inspections did not add significantly to the approvals process.
4. Major Changes in Regulatory Processes Over the Past Two Decades:

a) Examples of Changes Adding Time:

- Public Participation - In 1989, Laval introduced public hearings for applications involving re-zoning. This added 2 to 12 weeks to the land development approval process.
- Environment - In Surrey the need for provincial environmental impact assessments added 4 to 16 weeks to the process in 1990. It applies to projects with potential harm to the environment, such as a housing development near a river.
- Additional Players - Additional agencies or steps in the land development approval process increased the circulation time of development proposals in some of the cities surveyed. For example, in 1982 Regina added additional departments (fire, environment, the building inspector, parks and traffic) to the "servicing agreements" component of the LDAP. It doubled the "servicing agreements" stage to 4 - 6 weeks from 2 - 3 weeks.

b) Examples of Changes to Save Time:

- Delegation of Authority - In 1973, the Province of Manitoba delegated its final approval over the LDAP to the city. This reduced 4 - 6 weeks from the process.
- Reorganization - The City of Calgary has pre-screened all applications for building permits since 1980, to ensure all required information is provided. This saved one week in the BAP.

5. Streamlining Initiatives

The survey identified 28 initiatives which had been implemented in different cities in Canada and the United States that were designed to lessen the complexity and the time involved in development approvals. Broadly speaking, the initiatives fall into the following classes:

- a) initiatives designed to ensure that all parties are aware of requirements early in the process and that potential problems are flagged early in the process: these include initiatives for pre-application meetings with developers and city staff, site walk-ons with developers and city officials, and publication by the city of clear and readable guides to the requirements and processes involved with development approval.
- b) initiatives designed to reduce the number of committees and agencies involved in reviewing development approvals: these include initiatives to delegate authority from council to city committees or officials for certain approvals, consolidate several reviews and public meetings into one review and

public meeting, and to reduce the number of agencies that automatically receive development applications for review.

- c) initiatives designed to ensure better coordination of development approvals: these include initiatives to assign a municipal development officer to each development proposal, who serves as the main contact person for the developer with city officials, and initiatives to create positions of development coordinators and development coordinating committees and agencies within the city bureaucracy.
- d) initiatives designed to reduce the paper burden and to speed up approvals through application of computer technology: these include initiatives to create one master application for development approvals, initiatives to establish one-stop centres for development applications and permit issuance, and initiatives to computerize data-banks on development approval applications and building approval applications.

2.3.3 QUALITY STANDARDS

Housing Standards Project, Prepared for CMHC by Neilson-Welch Research Associates, July 1993

Purpose: To identify the major changes that have taken place since 1982 in the regulations governing housing standards, and to qualitatively evaluate the impact changes have had on housing affordability.

Scope: This project documents changes in housing standards. Housing standards include both land use standards and building standards. Land use standards are further subdivided into four categories:

- house-type standards (housing type, density and land-for-housing regulations);
- environmental regulations (i.e., regulations protecting natural features from residential uses, and regulations designed to protect residential zones from natural hazards);
- agricultural regulations (i.e., regulations which protect agricultural areas from urban development); and
- heritage regulations (i.e., regulations designed to ensure

that new housing is compatible with the historic character of a built-up area).

Officials were contacted in 10 Canadian cities - St. John's, Charlottetown, Dartmouth, Moncton, Montréal, Ottawa, Winnipeg, Saskatoon, Edmonton, and Vancouver - and 5 rural municipalities - Montague (Prince Edward Island), St-André d'Acton(Québec), Harrow(Ontario), Langenburg(Saskatchewan), and Osoyoos(British Columbia) - and asked to complete a set of questionnaires.

The consultant collated and evaluated results with regards to their impact on housing affordability.

1. Major Findings and Conclusions:

General Conclusions

- Changes in zoning by-laws have, on the whole, allowed more higher density housing, more land for housing and more innovative forms of housing, such as garden suites. This enhances housing affordability.
- Changes that have been made since 1982 to the other categories of housing standard regulations - environmental regulations, agricultural regulations, heritage regulations and building regulations - have virtually all added to the cost of housing. This decreases housing affordability.
- "Government attempts since 1982 to regulate the development of new housing have added to the cost of housing in Canada." Factors that qualify this conclusion:
 - there are few, if any cases, where the regulatory changes have not produced non-monetary benefits as well;
 - it is rare for government bodies to introduce changes that unnecessarily add costs;
 - actual additional costs may be insignificant when compared to changes in other components of housing costs, such as land value and financing.

2. Major Changes to Land-for-Housing and Density Standards

The following are the most important changes in land-for-housing and density standards reported by the municipalities surveyed:

a) allowing garden suites and other innovative housing forms

- four municipalities (St. John's, Dartmouth, Montague

(P.E.I.) and Moncton) reported changes in zoning regulations or liberal use of variances to allow garden suites;

- Montréal reported that the "Grow House" concept is being applied;
- Vancouver reported changes in regulations to allow family suites and phase-out suites;
- St. John's reported that zoning by-laws had been changed to allow mobile homes.

b) up-zoning to allow increased housing density

- Six municipalities (Montreal, Harrow (Ontario), Saskatoon, Edmonton, Vancouver and Osoyoos (B.C.)) have reported changes since 1982 to up-zone specific residential areas to allow for higher densities of one kind or another;
- At the same time, four municipalities (St. John's, Winnipeg, Saskatoon, and Vancouver) have made changes in zoning regulations since 1982 which had reduced permitted densities in one area or other of the city.

c) zero-lot line allowed

- St. John's and Winnipeg have made changes to zoning laws since 1982 to allow zero-lot line housing.

d) reducing lot size in large lot areas

- Moncton, Winnipeg and Edmonton have taken steps to reduce lot sizes of previously large lot areas.

e) legalization of secondary suites in more areas

- St. John's, Montréal and Vancouver have taken steps to expand the creation of legal secondary suites to more sectors of the city.

f) rezoning commercial or industrial areas to residential

- St. John's and Vancouver have rezoned commercial or industrial areas to residential use to increase land supply for housing.

Except for the down-zoning that has taken place in certain municipalities, all the changes made to housing-type, density and land-for-housing regulations were evaluated as having had positive impacts on housing affordability.

3. Major Changes in Environmental Regulations

The survey identified three types of environmental regulations which could affect housing affordability: a) Wetland and Other Protected Area Regulations; b) Watercourse and Floodplain Regulations; and c) Contaminated Sites Regulations. The following are the major changes reported to these environmental regulations since 1982:

- All municipalities reported the adoption of remediation criteria for contaminated sites over the past ten years. These criteria have in all cases emanated from the province, and most provinces have adopted the criteria approved by the Canadian Council of Ministers of the Environment (only Ontario and Québec have developed their own criteria). Remediation criteria specify the levels to which contaminated sites must be cleaned-up in order to be put to any use. The polluter is responsible for the clean-up costs.
- Six municipalities (St. John's, Charlottetown, Montague (P.E.I.), Dartmouth, Ottawa and Saskatoon) reported having adopted protected area regulations of some kind whereby environmental reviews are required before any new developments can proceed in the areas designated under the regulations. In Prince Edward Island, provincial legislation was enacted allowing development in wetlands only where no net wetland loss occurs.
- Municipalities in Prince Edward Island and New Brunswick reported that their respective provincial governments have since 1982 adopted legislation which protects watercourses from erosion, prohibits development within a certain set-back from the watercourse and provides a special review process for any proposed developments near watercourses.
- Five municipalities (St. John's, Montréal, Winnipeg, Saskatoon, and Edmonton) reported having adopted or enhanced floodplain regulations since 1982.

These regulations have reduced the supply of land available for housing, and thereby indirectly contribute to worsening housing affordability. They are nonetheless necessary and prohibit or regulate development where housing should not be built or should be allowed only under special circumstances.

4. Agricultural Regulations

Agricultural regulations protect agricultural land located on the fringe of built-up areas, from urban development. Only three cities - St. John's, Edmonton and Vancouver - reported any change in this area. In St. John's, the Province placed more land under provincial regulation to prevent development.

In Edmonton, the City adopted policies to protect agricultural lands from urban development until existing reserves of developable land are used up. In Vancouver, the City restated protection of certain semi-agricultural lands within the city.

Although prohibiting the rezoning of agricultural land can limit the supply of land for residential housing, this is not always the case (e.g. Edmonton). Where it is the case, the pressure on the land supply may have the beneficial effect of forcing municipalities to consider higher density housing, which can be positive for housing affordability.

5. Heritage Area Regulations

Heritage regulations protect the character of designated heritage districts. Five municipalities (St. John's, Ottawa, Winnipeg, Edmonton and Vancouver) reported having increased the size or number of heritage districts since 1982. Each district has its own design guidelines and all proposed developments are subject to review for compatibility with the guidelines.

Such regulations add to the cost of building in heritage areas. However, electors seem to place a high value on heritage preservation for reasons such as civic pride.

6. Building Regulations

Municipalities reported a number of major changes to building codes since 1982. Most of these changes came from the National Building Code (NBC) and are therefore common to all municipalities. The following are the major changes that were reported:

- changes in allowable floor joist spans to reduce vibrations that might otherwise occur with the use of fewer, more widely spaced joists (NBC amendment 1990);
- requirement for mechanical ventilation in residential buildings to improve airflow owing to the increased air-tightness of new housing (NBC amendment 1990);
- improved fire separators required for larger buildings (NBC amendment 1990);
- improved access for disabled in larger buildings (NBC amendment 1990);
- requirement to seal penetrations of concrete foundation and to place polyethylene sheet under the slab to exclude radon (NBC amendment 1990);

- new sound control standards for walls in multi-family units (NBC amendment 1990);
- new requirements to improve resistance to forced entry (NBC amendment 1990);
- requirement for polyethylene air barrier on exterior walls (NBC amendment 1990);
- Edmonton reported a new requirement to install sprinkler systems in units of large buildings;
 - the City of Vancouver introduced a requirement to install sprinkler systems in all single-family housing;
 - the City of Vancouver also introduced a requirement for a geotechnical engineer to supervise all single-family housing excavations to protect neighbouring units.

All changes to building codes have increased construction costs to some extent. Many of the changes were designed to improve the insulation and air tightness of housing and should consequently be expected to result in savings to the homeowner through lower heating bills. Moreover, many of the changes made to the NBC were already standard industry practice, so it is arguable whether the changes themselves added to the cost of housing. The changes introduced by the City of Vancouver were not standard industry practice and do add significantly to construction costs.

Property Standards Fact-Finding Project, prepared for CMHC by Karen Pianosi, February 1993

Purpose: To determine the extent of changes in site planning and engineering standards for new residential developments; to identify initiatives in Canada and abroad designed to promote alternative property standards for affordable housing.

Scope: This was a fact-finding project which gathered information on the changes which had taken place in property development standards over time.

In the first stage of the project, officials were contacted in 10 Canadian cities - St. John's, Charlottetown, Halifax, St. John, Montréal, Mississauga, Winnipeg, Regina, Calgary and Surrey - and asked to complete a questionnaire. The questionnaire requested information on property development standards which had been applied to a representative new residential development in 1952 and in 1992. Given that the survey inquired about standards in a limited

number of residential developments in a limited number of cities, the sample size is generally too small to provide statistically valid results.

Property development standards were classified into two types: site planning standards and engineering standards. Municipal officials were asked to provide the following information for a 1952 development and a 1992 development:

site planning standards

- minimum lot area (width and depth);
- minimum yard distances (front, rear, side yard setbacks);
- minimum floor area;
- maximum lot coverage; and
- parking spaces (spaces per unit, visitor spaces).

engineering standards

- roads (pavement width and depth);
- curbs (width);
- sidewalks (sides and width);
- storm drainage (manhole and catchbasin spacing);
- water supply (lots per service connection);
- sanitary sewers (lots per service connection, manhole spacing); and
- utilities (above ground or underground).

In a second stage, a literature review was carried out and authorities were contacted in Canada and abroad for descriptions of initiatives designed to promote alternative property standards. An inventory of these initiatives was prepared to provide examples of what might be done in Canada.

Major Findings and Conclusions:

1. Property Standards

- Site planning standards and engineering standards vary considerably from municipality to municipality. Tables I and II set out for 1992 how standards varied among the municipalities surveyed for certain key variables.

TABLE I

1992 Select Site Planning Standards, Select Municipalities						
City	Min. Lot Area for Single Detached (sq. m.)	Min. Floor Area for Single Detached (sq. m.)	Maximum Lot Coverage for Single Detached	Front Yard Setbacks Single Detached (meters)	Side Yard Setbacks Single Detached (meters)	Rear Yard Setback Single Detached (meters)
St. John's	450	none	none	6	1.2+2.4	6
Charlottetown	.05 hec	none	35%	7.6	1.8 one side, 3 other side	7.6
Halifax	465	88.3	35%	6.1	2.4	2.4
St. John	650 or 460	110 or 89	40%	7.5	10% of lot width	7.5
Montreal	n/a	50	60%	4.5-6.5	2.0-3.45	3.0
Mississauga	560	none	35%	9	1.2+0.61 per storey above 1	7.5
Winnipeg	371.6	none	50%	6	1.5	7.5
Regina	325	none	50%	6	1.2	25% of lot area (5m max.)
Calgary	233	none	45%	3	1.2	7.5
Surrey	660	84	33%	7.5	1.8	7.5

TABLE II

1992 Select Engineering Standards, Select Municipalities						
City	Right of Way Local Residential Area	Roadway Paving Width Local Residential Area	Curb Width Local Residential Area	Sidewalk Width Local Residential Area	Storm Drainage Manhole Spacing	Utilities
St. John's	15m	11.5m	none	no info.	90m	below ground
Charlottetown	15.2m	9.1m	none	none	as required	no info.
Halifax	12-15m	7.9-9m	0.15m	no info.	91.5m	above or below ground
St. John	20m	9m	0.2m (no gutter)	2m	90m or as determined	below ground
Montreal	15m	7-9m	0.6m	1.7-2.0m	n/a	below
Mississauga	20m	8.5m	0.14m	no info.	120-170m	above or below ground
Winnipeg	20.1m	7.3m	0.152m	1.5m	60m	below ground
Regina	15m or 18m	8.7m or 11m	0.15m	1.2m	91.4m	below ground
Calgary	15m	9.5m	0.25m	1.4-1.5m	150m	below ground
Surrey	16-20m	8 or 8.5m	0.30m	no info.	max. 100m	below ground

- Compared to 1952, the results showed that in 1992 more aspects of a development were regulated and regulations seemed to cover matters in greater detail. In 1952, many of the municipalities surveyed had standards which covered only the most essential elements of a development, such as lot size, setbacks, right-of-way widths and the like, only for single and semi-detached housing. By 1992, municipalities were finding it necessary to adjust regulations to accommodate a greater range of housing types (e.g. townhouses, and link housing). Regulations were also covering more things, such as parking spaces, minimum floor areas, sanitary and storm sewer specifications, curb widths etc.
- There is no doubt that some property development standards have been enhanced almost everywhere. For example, it is now common practice to lay utility lines underground whereas 40 years ago they were almost always placed above ground. On the other hand, some municipalities have actually "reduced" minimum standards from what they were in 1952, such as minimum lot size and setback requirements. In other municipalities, some key standards have not changed at all over 40 years.

Table III illustrates this point by comparing changes to three key property development standards between 1952 and 1992 in the ten municipalities surveyed.

TABLE III

Comparison of Selected Property Development Standards, 1952 and 1992, Select Municipalities						
City	Min. Lot Size Single Detached (sq. m.)		Roadway Paving Width Local Residential Area		Utilities	
	1952	1992	1952	1992	1952	1992
St. John's	450	450	no info.	11.5m	no info.	below
Charlottetown	no standard	.05 hec	no standard	9.1m	no standard	no info.
Halifax	372	465	7.9-9m	7.9-9m	both	both
St. John	465	650 or 460	n/a	9m	above	below
Montreal	n/a	n/a	n/a	7-9m	n/a	below
Mississauga	650	560	no info.	8.5m	no info.	both
Winnipeg	464.5	371.6	7.3m	7.3m	above	below
Regina	371.6	325	9.4m	8.7m or 11m	above	below
Calgary	288	233	9.9m	9.5m	both	below
Surrey	557	660	6m	8m or 8.5m	above	below

2. Development Standards Initiatives

(1) Examples of Initiatives Taken By National Governments

Australian Model Code for Residential Development (1990): is a resource document prepared by the national government. It is designed to establish national standards in residential development for meeting contemporary health, safety and amenity standards, while providing wide choice and greater cost effectiveness in housing.

Regulatory Reform for Affordable Housing Center, United States Department of Housing and Urban Development (1991): serves as a clearing-house for information on ways and means to promote affordable housing through regulatory reform, and provides assistance to state and local governments to streamline the regulatory process.

(2) Examples of Initiatives Taken By Provincial/State Governments

Ontario Policy Statement on Land Use Policy for Housing (1989): imposes requirements on municipalities to plan for and provide a range of housing types in new residential developments, including a requirement that at least 25% of new residential developments within the community be devoted to "affordable housing".

New Jersey Model Subdivision and Site Plan Ordinance (1987): a model ordinance showing the standards and procedures recommended for subdivision and site plans in the State.

Alberta Subdivision Assessment Form (1987): a form which allows assessments to be made of differences in subdivision costs between suggested standards and current municipal standards.

(3) Examples of Initiatives Taken By Municipal/Local Governments

Willington, North Carolina, Affordable Single Family Housing Policy (1988): a policy which allows modifications to development standards in order to encourage construction of more affordable housing, while at the same time ensuring public health and safety are not compromised.

Regina Zoning By-Law Initiative (1992): an innovative zoning by-law which specifies the circumstances under which certain types of development standards can be relaxed in return for developer-provided amenities.

(4) Examples of Developer Initiated Initiatives

Zero Lot Line Development (1986): Fliess Gates McGowan Easton/Architects designed a prototype development incorporating a zero lot-line standard which served as the basis for subsequent zoning by-law changes in Ontario.

River Oaks Group, Official Plan Amendment, Zoning By-Law and Development Standards, Oakville, Ontario (1993): The River Oaks Group, a development company, designed a development integrating many innovative changes to housing form and development standards, which served as the basis for subsequent changes to the Official Plan, Zoning By-Law and Development Standards in Oakville, Ontario.

2.3.4 INDUSTRY EFFICIENCY

"Working Paper Two, The Evolution of the Housing Production Process, 1946-86", The Housing Industry: Perspective and Prospective, Prepared for CMHC by Clayton Research Associates, 1989

Purpose: To examine the process of technological change in new residential construction over the postwar period.

Scope: The study provides a historical overview of the changes which have taken place in the postwar period in building materials and building processes used in the construction of single-family housing and apartments. It also examines the development of the renovation industry, reviews changes in the construction labour force, and outlines key changes that have taken place in the production of serviced land. This review summarizes only wood-frame housing construction, apartment construction and land servicing over the last forty years.

Major Findings and Conclusions:

1. Wood-Framed Construction
 - There were major productivity improvements between the mid-1940's to the mid-1960's. Since the mid-1960s there have been virtually no productivity improvements in wood-framed residential housing construction. Site person-hours required to build a single-family home were reduced from approximately 2,400 person-hours in the mid-1940's to about 950 person-hours in the mid-1960's, but have remained at that point since. Similarly, construction time of a single-family house declined from seven months to about eight weeks between the mid-1940's and the mid-1960's, but has remained at that point since.
 - Technological innovations adopted by the wood-frame home building industry between the 1940's and early 1960's

reduced on-site construction time and the need for skilled trades in order to reduce construction costs and to compete in the mass housing markets. Technological innovations since the 1960's have essentially enhanced the comfort, performance, quality or appeal of new housing for the substantial number of higher-income households who now are consumers of new homes.

- The tendency, particularly since the early 1970's, has been towards the construction of larger single-family homes with more amenities. The typical single-family home of the 1940's had a floor area of from 770 to 1000 sq. feet. The typical size of a home of the 1960's ranged from 1,100 to 1,300 sq. feet. A single-family home constructed in the 1980's is typically over 2,000 sq. feet in area. It also has more amenities than housing constructed in the past such as, larger kitchens, more bathrooms, living rooms and family rooms, built-in vacuum systems, walk-in closets, dishwashers, fireplaces, sun spaces and open entrance ways.
- According to the study the home-building industry is very good at adopting technological change which improves profitability or which enhances the marketability of a product. Most of the new technologies and products adopted by homebuilders have resulted from the R&D efforts of manufacturers of materials, components and equipment and to a lesser extent, from public agencies. New technologies have been transferred to the industry primarily through marketing and sales agents of material and equipment manufacturers, builders associations and public agencies, such as CMHC. Building codes, particularly the National Building Code, are helpful in technology transfer since once an innovation is in the code, it tends to become firmly entrenched and accepted industry-wide.
- Building codes and resistance by established building trades created obstacles to innovation, particularly during the 1940's and 1950's, when there was an effort to introduce manufactured housing into Canada. Under the impetus of war-time production needs, several home-builders started manufacturing factory-built homes during the 1940's, using either stressed skinned systems, pre-wired closed panel systems or box modular systems. Virtually all of these experiments were abandoned between 1945 and 1955 because of difficulties experienced in gaining entry into municipalities because of local code and inspection hurdles ("Where are the studs?" syndrome) and resistance by established building trades.

2. High-Rise Apartment Construction

- Technology has, in the post-war period, revolutionized the

way apartments are built. Many of the more important technological innovations associated with the construction of high-rise apartment buildings were introduced or developed first in Canada (primarily Toronto) and later adopted elsewhere in North America. The materials and processes used in high-rise apartment construction in Canada are more efficient and cost-effective than the pre-fabricated techniques imported from Europe.

- . Prior to the 1950's, walk-up apartments made of timber-frame construction or masonry were common in Montreal and Toronto. Starting in the 1950's, the pressures of urbanization, growing demand for rental accommodation in or near the city core, rising land and servicing costs and the increasing complexities of the development approval process, led developers to attempt to optimize space by building at higher densities. Reinforced concrete construction emerged as the predominant construction type for high-rise apartment buildings. The pressure to build to ever greater heights and to speed up construction time led to innovations which eventually resulted in what is known as the Toronto "flat slab/climbing crane/flying formwork" system in use today.

- . The Toronto system is based on three key innovations:

- a) introduction of, first, the tower-type construction crane and then the climbing crane:

Tower-type construction cranes were introduced into Canada from Europe in the late 1950's and greatly reduced overall construction time but were limited in height to about 20 storeys. Introduction of the climbing crane in the 1960's, which uses the building structure for support, greatly reduced costs and literally removed the lid on building height.

- b) development of the flat slab/flying formwork concept:

The new cranes made it feasible to move large sections of floor forming and shoring as whole units from one floor to another (i.e., flying formwork concept). However, deep sprandel beams around the floor perimeter of some building designs made it necessary to collapse the shoring a significant amount to get around this obstruction. In the mid-1960's, a flat slab design was developed in Toronto, wherein the floor slab is of a uniform thickness throughout, to facilitate the operation of the flying formwork concept.

c) development of the "Hi-Rise" hoist tower:

Also developed in Canada, the "Hi-Rise" hoist tower was safety designed and licensed to operate as a workmen's hoist, lifting up to 20 men at a time to heights of 244 meters (800 feet) at speeds of 76 meters (250 feet) per minute. It assured the rapid access of work crews to working levels.

- . These and other technological innovations allowed for significant increases in productivity. Whereas in the 1940's, construction of a walk-up apartment had taken about 2,000 person-hours per unit, by the late 1960's, a high-rise apartment unit was being produced in about 1,000 person-hours. So efficient was the Toronto flat slab/climbing crane/flying formwork system that it was rapidly adopted in medium and high-rise apartment construction throughout Canada and the United States.
- . At about the same time that the Toronto system was being developed, several Canadian development companies freely experimented with European factory-based apartment construction. These experiments failed, not due to regulatory obstacles, but because they simply could not compete with the more efficient techniques of the Toronto system.

3. Land Development and Servicing

- . The most important change in land development since the 1940's has been the transfer of land servicing responsibilities from municipalities to the developer. In the immediate postwar era, municipalities were responsible for land servicing. By the early 1960's in English-speaking Canada and by the 1970's in Québec, municipalities had withdrawn from land servicing because of rising costs. Developers have since been required to pay for and install services if they wished to develop their landholdings. Ultimately, these costs were passed on to the new homebuyer as part of the purchase price of the house.
- . As municipalities were withdrawing from service installation, both they and the provinces also increased their involvement in land development through regulation. The imposition of development controls and standards began in the early 1960's and has grown in both scope and complexity to this day.
- . The range and quality of services provided today far exceeds those provided in the 1940's. However, servicing standards vary enormously from municipality to municipality. Some of these variations can be explained by differences in soil, topography and climatic conditions. However, variations

occur even among municipalities having essentially the same physical environment. Many of these development standards can be considered excessive and add unduly to the cost of residential development. Since the cost of installing services is now borne by the developer and not the municipality, municipal regulators have little incentive to adopt the most cost effective systems or techniques, and are more likely to adhere to excessive or obsolete standards with which they are familiar. Once entrenched, the planning and servicing standards applied in any given municipality are difficult to change.

2.3.5 GOVERNMENT INFLUENCES ON PROPERTY PRICING

Government Influences on Property Pricing: A Survey of Case Studies, Prepared for CMHC by Amelia Colebourne, March 1993

Purpose: To provide an inventory of the different ways in which governments at all levels in Canada have affected land pricing and the provision of affordable housing.

Scope: This was a fact-finding project. The research involved a literature review, followed by a telephone survey to obtain more information from officials on the initiatives identified in the literature, and to verify if other initiatives existed.

The project collected information on four types of government initiatives:

- land banking;
- disposition of surplus government land for housing;
- legislation and policies designed to promote affordable housing;
- land speculation taxes.

For each initiative, the survey obtained information on the background, timing, and major achievements of the policy or program.

Major Findings and Conclusions:

Based on the data that was gathered, the following observations can be made:

- . Land banking activities were more prevalent in the past than they are at present. Two provinces, Newfoundland

and Nova Scotia, currently have active land assembly programs. Three municipalities were identified as having active residential land assembly programs - Montreal, Windsor and Saskatoon. In Montreal and Windsor the programs are tied to very specific initiatives that are not on-going. However, several provinces and municipalities still hold reserves of land acquired under past programs, which they are now actively selling.

- . In British Columbia, the province and several municipalities are involved in a form of land banking for social housing purposes. Unless land is donated to a non-profit housing group, all land upon which social housing is built must be owned by the province or a municipality. Public authorities buy the land and lease it back to the non-profit group, usually on a 60 year lease, at 75 percent of market value paid lump-sum.
- . Several governments have policies or programs which favor the disposal of surplus publicly-owned land for housing purposes. Ontario has had a "Housing First" Policy in place for several years, whereby provincially-owned lands declared surplus must be evaluated for their potential use for housing. Several provincial land parcels have been identified for housing development under this initiative (including lands in Kitchener, Hamilton and Metro Toronto). The federal government has identified surplus lands it owns in the demand-driven markets of Toronto and Vancouver. CMHC is currently managing their development or redevelopment (Vaughan, Downsview, CMHC Toronto Branch Office, George Derby lands in Burnaby, Kitsilano).
- . The survey also identified several municipalities which had initiatives to dispose of city-owned land for housing purposes. In some instances, the land is being sold to developers at market value and in other instances the land is being sold at below market value.
- . Affordable housing legislation and policies appear to be limited to Ontario and British Columbia. Generally speaking, the object of these initiatives is to impose requirements on municipalities to plan for and provide the opportunity for the production of more affordable housing. Ontario has promulgated its Policy Statement on Land Use for Affordable Housing, while British Columbia has recently taken steps through Bills 30 and 51 to require municipalities to plan for a variety of housing types and to pre-zone land for residential development.
- . The project identified only one instance of an anti-speculation tax: the Ontario Land Speculation Tax (1974-1978). This tax measure was temporary and was terminated once housing prices stabilized.

Testing Hypotheses About Rent Controls, Prepared for CMHC
by Quantec Research Ltd., June, 1993

Purpose: To test, using econometric methods, a number of hypotheses about the impact rent controls may have on the rental housing market.

Scope: Consultants were asked to test seven hypotheses about rent controls submitted by CMHC. The purpose was to determine if rent controls had any significant statistical impact on rent levels, rental housing starts, vacancy rates, property values, tenure preferences, conversions and the maintenance and repair of rental buildings. Owing to difficulties in obtaining an adequate database, it was not possible to test hypotheses about the impact of rent controls on rental property values. The remaining hypotheses were re-formulated by the consultants as follows:

(1) rents

- (a) The long run average rate of increase of rents is unaffected by regulations.
- (b) The rate of increase of rents is unaffected by regulations in periods of either strong or weak upward pressure on rents.
- (c) The rate of increase of rents is unaffected by regulations in periods of strong upward pressure on rents.

The database used to measure rates of change in rents was the rental index component of the consumer price index for sixteen cities. The researchers devised their own measure of how to determine periods of weak and strong pressure on rents.

(2) housing starts

- (a) The responsiveness of rental-unit housing starts to the levels of vacancy rates and rents is unaffected by regulation.
- (b) The responsiveness of rental-unit housing starts to the level of vacancy rates is unaffected by regulation.
- (c) The responsiveness of rental-unit housing starts to the level of rents is unaffected by regulations.
- (d) The responsiveness of rental-unit housing starts

to changes in vacancy rates and rents is unaffected by regulations.

- (e) The responsiveness of rental-unit housing starts to changes in vacancy rates is unaffected by regulation.
- (f) The responsiveness of rental-unit housing starts to changes in rents is unaffected by regulations.

Six null variables were required because the original question by CMHC contained that many implicit statements. The rental index component of the CPI was used to measure rent levels; CMHC vacancy rate data available on CANSIM was used to measure vacancy rates; and CMHC data on apartment unit starts available on CANSIM were used to measure rental-unit starts.

(3) vacancy rates

- (a) Rental vacancy rates are unaffected by regulation.

CMHC vacancy rate data available on CANSIM by metropolitan area were used to test this hypothesis.

(4) tenure preference

- (a) Household preferences for renting are unaffected by regulation.

It was not possible to test this hypotheses directly since it was not possible to obtain information on tenure preferences per se. Instead, researchers used HIFE data on tenure status by province over a period of years to test whether rent controls had any effect on the number of tenants as opposed to homeowner households.

(5) conversions

- (a) Rates of conversion of rental units to owner units are unaffected by regulation.

Statistics Canada time series data on conversions from single-unit to multiple-unit dwellings was used to test this hypothesis.

(6) maintenance and repairs

- (a) Maintenance, repairs and the provision of services in rental units are unaffected by regulation.

HIFE data on the number of occupied rental units in need of major repairs as a proportion of total rental units was used to test this hypothesis.

A survey was made of rent control regimes across Canada since 1971. For each year, in each province, rent regulations were classified as: A) no rent regulation; B) rent control with mandatory review; and C) rent arbitration regime. Rent controls with mandatory review refer to rent control regimes where the level of rent increase is set by the province each year and where any increases above this level require provincial approval. In rent arbitration regimes, the province does not set the level of rent increases but merely issues guidelines about what the level of acceptable increase should be. Landlords are free to increase rents by higher amounts. However, if the tenant objects, the rent increase may be appealed to a provincial agency which seeks to arbitrate the dispute. Failing that, the matter may be decided by a tribunal. Tests were made to determine if the type of rental regime made any difference to the results.

The researchers used the standard "parametric" approach, derived from normal distribution theory, to conduct statistical testing of all hypotheses. In addition, for certain key hypotheses, they also used a new "non-parametric" approach, derived from random theory, to test for statistical correlation and significance. Whenever the non-parametric approach was used it confirmed results obtained from using the standard parametric approach. To the extent possible, statistical tests were conducted for a twenty year period (1971 to 1991).

Major Findings and Conclusions:

1. Rents

- . The tests carried out provide no evidence that rent controls reduce the rate of increase in rents in the long run.
- . The tests do suggest that rent controls, particularly rent control regimes requiring mandatory review, do cause rents to rise more rapidly than they otherwise would in periods when the rental market is "soft". However, if over the long run rent controls have no effect on the rate of rent increases, they would have to cause rents to rise less rapidly than they otherwise would in periods of market "tightness" to balance things out, and the authors

found no evidence of this. They suggest that evidence of "soft" market effects should therefore be discounted and the result of no long-run effects emphasized instead.

2. Housing Starts

- . There is no evidence that the responsiveness of apartment unit starts to vacancy rates is reduced by the imposition of rent controls.
- . There is no evidence that the responsiveness of apartment unit starts to the level of rents (relative to the general price level) is reduced by the imposition of rent controls. (This means that there is no evidence that apartment starts have been made less responsive to rent levels by the imposition of rent controls.)
- . There is some evidence that the responsiveness of apartment unit starts to changes in rents is reduced by rent arbitration regimes. However, since rent arbitration regimes exist in only two provinces, Québec and Newfoundland, the results may merely reflect characteristics about these two provinces that were not controlled for in the analysis.

3. Vacancy Rates

- . The results suggest that rent controls with a mandatory review tend to be associated with lower vacancy rates. However, there is no evidence of this for rent arbitration regimes, nor when both kinds of regimes are combined for purposes of statistical analysis. Given the practical statistical difficulties in establishing the effects of different kinds of regimes, the authors are inclined to emphasize the absence of effects when the distinctions between regimes are ignored.

4. Tenure Preferences

- . There is some evidence to suggest that rent controls are associated with a higher proportion of renter households. This should not be taken to mean that rent controls necessarily affect tenure preferences. Changes in the proportion of renter households to total households can also be explained by other factors. This test conclusion holds for rent controls with a mandatory review and for both types of rent control regimes combined, but does not hold for rent arbitration regimes considered singly. The authors are once again inclined to emphasize the effects when both regimes are considered together.

5. Conversions

- . There is no evidence that rent controls affect the rate of

conversion of single housing units into multiple units.

6. Maintenance and Repairs

- . There is no evidence that rent controls increase the proportion of occupied rental dwellings that are in need of major repairs.

2.3.6 NATIONAL ECONOMY

Federal Tax Regimes and Rental Housing, Prepared for CMHC by Alex MacNevin, August, 1993

Purpose:

- a) to provide a compendium of all federal tax measures directed at rental housing investors introduced since 1972;
- b) to identify the criteria that are appropriate to apply in assessing the different measures;
- c) to describe, assess and illustrate by example the alternative models that might be used in evaluating tax incentives targeted at rental housing investors.

Scope: This was a two-part project. The first part was a fact-finding exercise. An inventory was compiled of all federal tax measures introduced since 1972 directed at rental housing investment. Sources included an initial CMHC listing of federal tax measures that was provided to the researcher, federal Budget Papers and press releases, annual additions of the Canadian Master Tax Guide and existing tax legislation. The listing focuses strictly on measures that were directed at rental investors. It does not include tax changes of a more general nature, such as changes in the amount of capital gains that may be excluded from tax. It adopts the same definition of a tax expenditure as used by the federal Department of Finance.

The project did not evaluate the effects or measure the impact of the federal tax measures on the rental housing market. The consultant was asked by CMHC to identify the different ways one might possibly assess these federal tax measures. The second part of the study reviews the major criteria used to assess tax expenditures, outlines various models that could be used to evaluate the impact of any tax measure, and examines, by way of example, how these various models could be applied to the evaluation of the MURB program.

Major Findings and Conclusions:

- . The study identified a number of federal tax initiatives over the last 20 years (1972 to 1992) which have been directed at rental housing. A complete list and short description of these tax measures are found in Appendix A of the study. The following are the major tax changes identified:
 - non-deductibility of Capital Cost Allowance (CCA) losses from other income for individual investors (1972);
 - placing all rental properties in excess of \$50,000 in a special class for tax purposes to prevent deferral of recapture upon sale (1972);
 - introduction of Multiple Unit Residential Building (MURB) program which reinstated CCA deductibility from other income for investments in qualified projects (1974);
 - non-deductibility from other income of property taxes and interest costs relating to land for land developers (1974);
 - reduction of Manufacturers Sales Tax on most construction equipment and building materials from 9% to 5% (1974);
 - change in terminal loss rule requiring CCA losses to be deducted in the year the asset is sold (1976);
 - expenses incurred in disposing depreciable property can be deducted from proceeds of disposition (1977);
 - reduction in CCA rate on wood-framed buildings from 10% to 5%, achieving symmetry with other building types (1978);
 - re-introduction of the MURB program, which had been allowed to expire in 1979 (1980);
 - restriction of capital gains exemption for sale of principal residence to one principal residence per married couple (1981);
 - rules introduced to close "loop-holes" which allowed CCA deductibility in lease-back arrangements and which made it profitable for owners to demolish rental buildings and sell the land rather than sell the building and face CCA recapture (1981);
 - requirement introduced to capitalize "soft costs" for all

investors other than principal business corporations (1981);

- losses can no longer be created from interest expenses incurred to generate investment income (1982);
 - CCA rate reduced from 5% to 4% (1987);
 - requirement to capitalize "soft costs" extended to principal business corporations (1987);
 - MURB program terminated (1987);
 - Cumulative Net Investment Loss rule introduced whereby investment expenses, such as interest and carrying costs, are accumulated and deducted from the capital gains exemption, at that time set at \$100,000 (1988);
 - GST of 7% replaces Manufacturers Sales Tax and applied to construction and acquisition of rental buildings (1991);
 - sale of secondary residences made ineligible for the \$100,000 life-time capital gains exemption (1992).
- . In order to evaluate the impact of these tax measures on rental housing, the study first identified five basic assessment criteria that are normally used in evaluating tax measures. These are:
- efficiency: efficiency refers to the optimal allocation of resources in society. Tax measures may affect the allocation of resources in many ways by diverting resources from one sector of the economy to other. To be judged successful on economic grounds, the measure must increase net social welfare, which is usually measured by real incomes. There are several methodological issues involved in measuring efficiency effects, and great care must be taken to ensure correct measurements.
 - equity: equity refers to the distribution of net resources among members of society. Horizontal equity means the equal treatment of equals; while vertical equity refers to the distribution of benefits across groups of taxpayers. Tax measures can be evaluated on the overall equity implications of the tax change.
 - flexibility: refers to how easily a tax measure can adjust to external determinants, whether that be data sources required to implement the measure or changes to the tax environment.

- budgetary and policy control: refers to how readily policy makers can control the cost and take-up of the tax measure.
 - administrative simplicity and compliance costs: tax measures may also be evaluated on the basis of the administrative burden and costs involved in administering the measure. This includes not only the cost to the government for implementing the tax measure, but also the costs to the taxpayer for complying with the administrative burden the measure may impose.
- . Despite common data and assessment criteria, the study showed how different analysts could nonetheless arrive at different conclusions about the effects of tax measures. This is possible because of differences in evaluation frameworks they use and the way they link different assessment criteria. The study identifies and discusses in general terms five different models that could be used to evaluate federal tax measures:
- (1) the cost/benefit model: is designed to measure the net welfare results of any public policy initiative on society. The model uses a partial equilibrium approach (i.e., looks only at effects within a certain sector of the economy and not the entire economy) to measure the efficiency of any given policy. Equity effects (both horizontal and vertical) may also be considered, but their inclusion is controversial. The approach has difficulties in measuring non-monetary benefits that may result from policies under review.
 - (2) the financial feasibility model: this approach concentrates on measuring the net costs of a policy to the federal treasury rather than the net welfare effects of the measure. For example, if it costs the federal government \$50,000 in lost tax revenues to build one additional rental apartment whose construction costs was \$38,000, this approach would likely conclude that the policy was not financially viable.
 - (3) the private sector model: this approach assumes that any policy that reduces government intervention in the private market is good in and of itself. Tax measures would be evaluated based on whether they supported free market determination of prices and incomes, or whether they implied more government intervention in market mechanisms.
 - (4) the general equilibrium model: this approach evaluates the impacts of policies on the economy and society as a whole, and therefore traces the impact of policies

until all markets are brought back into equilibrium. Like the cost-benefit model, it is based on an evaluation of net welfare effects of the tax measure on society, but it casts its analysis more broadly. Because the technique is so broad, it is difficult to capture equity effects using this model, and analysis is generally restricted to efficiency effects.

- (5) the dynamic or growth model: growth models examine the effects of policies on economic growth (e.g. rates of capital accumulation, factor input development or technological innovation).
- . The study concludes with a demonstration of how each of these models might be applied to an evaluation of the MURB tax measure.
- cost-benefit analysis would concentrate on measuring the net incremental value to society of the MURB program using a partial equilibrium approach. As secondary information, the analyst would also report on the number of jobs created by the program and on the supply of additional rental units for lower income households. If the measurement of the net incremental value of the MURB program was positive, the analyst would likely call the program a success. However, if the number of jobs and distribution effects of the program did not meet policy expectations, the program might be judged less favorably.
 - general equilibrium analysis would extend the measurement of the cost and benefits of the program to all sectors of the economy. It could find for instance that other sectors of the economy had to be taxed more or were deprived of capital funds because of the MURB program. Resource costs would then be higher than estimated under partial equilibrium models and the measure likely deemed inefficient from an economic point of view.
 - financial feasibility analysis would concentrate on measuring the cost of the MURB program to the federal treasury relative to the policy objectives and accomplishments of the program. Such an analysis might conclude that the MURB program cost too much for the few jobs it created.
 - the private sector model would look at the MURB program not only as market interference but would also argue that the social objectives of the program could best be accomplished through more direct and less distortionary means, such as direct income transfers to individuals.

- the growth model is too broad in scope and not viewed as a suitable model for evaluating MURB program.

3.1 CONCLUSIONS

As previously noted, the purpose of the research, was to address certain questions and issues related to housing affordability. The research studies completed to date lead to the following general conclusions:

Municipal Finance

With the possible exception of development costs charges, municipal finances - municipal expenditures and municipal taxation - have not affected housing affordability in any significant way.

Regulatory Processes

Generally speaking, the most complicated and time-consuming of the regulatory processes affecting new housing development is the land development approvals process. The building approval and inspection processes do not contribute unduly to the time it takes for developments to get on stream. The land development approvals process varies greatly from municipality to municipality, and seems to be more complicated and more time-consuming in the larger municipalities than in smaller ones.

Streamlining initiatives seem to offer cost-effective ways of dealing with some of the problems associated with the regulatory process.

Quality Standards

The research indicates that quality standards have in general been enhanced over the last 20 years. However, there is considerable evidence that local governments have, particularly over the last decade, been modifying zoning regulations to enable the development of more affordable housing. At the same time, changes to building codes and property development standards have generally enhanced the quality of living environments, and added to the cost of housing. Other land use regulations, such as agricultural regulations, environmental regulations and heritage site regulations may also in certain cases have increased the cost of housing. However, changes in quality standards that have added to the cost of new housing can generally be defended on other public policy grounds (i.e., health and safety, environment).

Industry Efficiency

Many technological innovations have occurred in the home-building industry in the post war era, but productivity increases have essentially come to a standstill since about the end of the 1960's. Innovations adopted since have tended to improve housing quality but not industry efficiency.

Property Pricing

There is no evidence that rent controls have had significant effects on rents, rental starts, vacancy rates, tenure preferences, conversions, or maintenance and repair of rental housing. Nor is there any evidence that governments in Canada are currently intervening extensively in land pricing.

National Economy

Over the last 20 years the federal government has acted many times to change tax rules regarding investment in rental housing. There are many different ways to evaluate the effect of federal tax policies on the rental housing market. Each approach has its pros and cons.

The general impression that one is left with is that many of the things that have been commonly thought of as possible barriers to housing affordability either do not constitute barriers in any objective sense or can be defended and legitimized on other public policy grounds.