Roll-Over Mortgages in Canada

Donald R. Lessard*

I. INTRODUCTION

The Canadian system for financing housing differs in a number of important respects from the U.S. system. Of greatest interest for this study is the absence of interest rate ceilings on deposits or mortgages and the fact that nearly all single-family mortgages are of a "roll-over" variety with interest rates fixed for only a fraction of the total amortization period.

These two differences, as we shall show, allow Canadian institutions to avoid the interruptions in the supply of mortgage credit and the deterioration in reserve positions typical of U.S. institutions with their unmatched assets and liability structure and deposit rate ceilings.

II. DESCRIPTION OF MORTGAGE INSTRUMENT

A. *Basic Type(s) of Mortgage Instruments*

There are two types of housing loans in Canada, government guaranteed loans made under the provisions of the National Housing Act (NHA), and conventional mortgage loans. In the case of single-family dwellings, both types of loans are typically "five-year roll-over loans," loans written for a five-year term at a fixed rate with amortization based on a term from 20 to 30 years for conventional mortgages and up to 40 years for NHA government guaranteed mortgages. Large-scale residential developments typically are financed by fixed-rate mortgages.

B. *The Five-Year "Roll-Over Loan"*

In 1973 virtually all single-family residential mortgages were of the five-year roll-over variety. Roll-over mortgages have been used for conventional loans for many years, dating back at least to the 1930s, and were instituted by lending institutions in reaction to "The Interest Act" which allowed homeowners to pay off mortgages after five years with a maximum penalty of 90 days interest.

Prior to 1969, all NHA loans were required to be written with a fixed rate for a term of 25 years or longer. In 1969, the law was changed to permit five-year rollover contracts to be amortized in not less than 25 years.

*Assistant Professor of Management, M.I.T. The author is grateful to Robert Adamson of CMHC and Hirsh Tadman of the Department of Finance for memoranda on the Canadian market. The interpretation and conclusion are solely those of the author.

Interest. Rates for the five-year term are dictated by market forces and are not linked to any external reference rate. The highly concentrated structure of Canadian capital markets relative to the U.S. market coupled with nationwide branching tends to minimize differences among rates charged by different institutions at any point in time.

Mortgage rates bear a close relationship to interest rates paid on five-year term deposits which provide the bulk of funds for mortgage lending. The spread between rates on NHA and conventional mortgages is typically about one-half of one percentage point. This reflects the lower risk of the government guaranteed mortgages, their greater marketability, and the absence of required reserves for losses on NHA mortgage holdings of regulated financial intermediaries.

Refinancing and Prepayment Provisions. At the end of the five-year term, the principal becomes due and payable. With a conventional loan the borrower has the option of paying off the unamortized principal or refinancing it with a new five-year loan at the going interest rate with payments geared to fully amortize the principal over the remainder of the original amortization period. Therefore, if interest rates have increased over the five-year period, the borrower's monthly payment will be increased. NHA loans provide the additional option of extending the maturity up to 40 years to maintain the original payment.

This normal refinancing does not involve any new closing costs. Further, certain changes can be made without incurring closing costs. For example, the borrower can repay part of the loan or reduce the amortization period. However, if the borrower wishes to increase the amortization period or increase the loan, this will be treated as a new loan and will involve closing costs.

If the borrower does not wish to refinance at the rate stated by the lenders, he probably will find that to switch to another lender will provide little or no interest rate advantage but will involve closing costs.

Prepayment provisions differ between NHA and conventional mortgages. With NHA mortgages the terms are dictated by law and allow the borrower to prepay up to 10 percent of the loan in each of the first two years of the mortgage and the whole amount at any time after this period. A penalty of three months interest is charged for prepayment.

For conventional mortgages the terms of the contract vary more from lender to lender. Most mortgages are written for a five-year term but are amortized over a longer period. Most contracts do not provide for prepayment during the first five years but most lenders will allow prepayment under certain circumstances upon payment of a penalty. After a mortgage has been in existence for five years and the mortgage has been renewed with a new five-year loan, the borrower can prepay the balance of the loan at any time upon payment of a three-month interest penalty.

Loan-to-Value Ratios. For NHA loans, the loan may be up to 95 percent of the first $31,580 of house cost or appraised value, if lower, and 75 percent of the balance up to a maximum fixed by region, ranging from

$40,000 in Toronto and Vancouver down to $30,000 in much of rural Canada. For conventional first mortgages, the maximum loan amount is 75 percent of the appraised value of the property unless it is insured by a private mortgage insurance company in which case it may go up to 95 percent of the appraised value.

Tax Treatment. Mortgage interest payments are not deductible from income in the computation of personal income taxes. However, housing does enjoy one tax advantage since it is the only type of asset which is exempt from the capital gains tax.

III. INSTITUTIONAL STRUCTURE OF SYSTEM FOR FINANCING HOUSING

A. *Housing in Canada: An Overview*

Additions to the Canadian housing stock have typically been divided in roughly equal proportions between single houses and multi-family structures although the proportions vary substantially from year to year.

The vast majority of housing additions are private and although government aid and loan programs are important sources of financing, private financing also is dominant.

Table 1 breaks down housing starts by the type of financing.

Table 1

HOUSING STARTS BY SOURCE OF FINANCING — 1963-1973

	Public Funds		Institutional Funds		
Year	Loans & Low Income Aid	Direct Government Housing	NHA Mortgages	Conventional Mortgages	Other
	(number of dwelling units)				
1963	23,752	1,620	28,505	71,983	22,867
1964	29,886	1,398	26,118	85,090	23,166
1965	31,440	1,220	24,172	88,669	21,064
1966	39,496	1,453	12,438	55,208	25,879
1967	43,564	1,761	20,829	64,683	33,286
1968	24,435	2,266	48,542	80,926	40,709
1969	28,108	1,769	55,645	85,680	39,213
1970	57,878	1,773	49,612	40,255	41,010
1971	37,881	2,067	87,802	55,625	45,860
1972	37,786	2,424	96,033	64,250	49,421
1973	30,027	2,243	75,469	96,641	67,149

Source: *Canadian Housing Statistics,* 1973

B. *Primary Mortgage Lenders*

There are four main types of financial intermediaries active in the Canadian mortgage market. These are: (1) trust companies with assets in excess of $11.0 billion, roughly 70 percent of which is invested in mortgages, (2) mortgage loan companies with assets of $6.0 billion, 80 percent of which is in mortgages, (3) life insurance companies with assets close to $20.0 billion, about 50 percent of which is in mortgages and (4) chartered banks with assets in Canada close to $70.0 billion, about 10 percent of which is in mortgages. Two of these, trust companies and mortgage loan companies, specialize in housing finance while the others are general financial intermediaries. In addition there are institutions like pension funds, credit unions, Quebec Savings Banks, etc. which are also active in the Canadian mortgage market. The trusteed pension funds only buy mortgages from other lenders.

The total mortgage holdings of the major lenders are shown in Table 2.

Table 2

MORTGAGE HOLDINGS BY LENDER

Year	Trust Companies	Mortgage Loan Companies	Life Insurance Companies	Chartered Banks	Credit Unions	Pension Funds
			(millions of dollars)			
1963	1,103	1,188	4,560	885	549	479
1964	1,449	1,492	5,094	846	622	542
1965	1,975	1,839	5,662	810	695	623
1966	2,167	1,949	6,248	778	883	676
1967	2,414	2,073	6,636	840	1,013	724
1968	2,727	2,235	7,107	1,057	1,142	776
1969	3,264	2,508	7,490	1,324	1,242	863
1970	3,829	2,868	7,723	1,481	1,351	1,022
1971	4,480	3,152	7,880	2,338	1,659	1,169
1972	5,462	3,749	8,145	3,543	2,254	1,296
1973	7,160	4,745	8,700	4,566	3,360	1,460

Trust companies and mortgage loan companies are privately owned stock companies. Most of the estimated 150 such firms are small local firms, but several are affiliated with major chartered banks. *Trust companies* perform a full range of trust functions and accept deposits. They are chartered either under provincial or Federal law and can branch on a nationwide basis. At the end of 1973 there were an estimated 50 trust companies.

Trust company *assets* include demand deposits, bills, and commercial paper for liquidity, government and corporate bonds, mortgages, personal loans, and equities. Mortgages are the dominant asset, having increased from 47 percent to over 68 percent of total assets over the last ten years, with an offsetting reduction in holdings of government securities.

Trust company *liabilities* include demand deposits, time deposits, and shareholders' equity and reserves. Time deposits take the form of *guaranteed investment certificates* with a fixed rate of interest for a term which may vary up to five years. These deposits may be withdrawn before the term expires with an interest penalty and are not traded in secondary markets. To the extent possible, asset and liability maturities are matched and, therefore, the bulk of deposits are for five years to match the roll-over mortgages. From 1963 to 1973, one- to five-year deposits have increased from less than 45 percent to more than 60 percent of total liabilities, with a corresponding decrease in short-term deposits from 35 percent to less than 20 percent of the total.

Trust companies offer a variety of special savings plans to take advantage of tax laws favoring individual retirement plans. In these plans, the investor typically has the option of investing in a fixed income portfolio including bonds and mortgages, an equity fund, or a fund guaranteed as to principal which pays the same rate each year as newly issued three-year time deposits.

Mortgage loan companies, also stock companies, have a similar asset and liability structure, but with a somewhat longer average maturity. Their *assets* include a higher proportion of mortgages, over 80 percent in 1973, and fewer liquid assets than the trust companies. This is reflected in the generally longer structure of *liabilities* with fewer demand and savings deposits and a much higher proportion of deposits, notes or debentures with maturities over five years. Mortgage loan company term deposits are technically debentures and are traded in secondary markets.

Four types of non-specialized intermediaries — life insurance companies, chartered banks, credit unions, and pension funds —also are major lenders. The relative importance of mortgages as investments for each of these is summarized in Table 3.

Mortgages continue to be the largest component of *life insurance company* assets although the proportion has been falling in recent years. Their holdings are concentrated in nonresidential and multi-family residential loans which do not have the roll-over feature.

Chartered banks are re-emerging as important mortgage lenders. Their role was reduced during the 1960s by statutory interest rate ceilings on NHA insured mortgages to which they were restricted. In 1969, these restrictions were removed but in their place new regulations were set which limit mortgages to 10 percent of total assets. They currently are the most important lenders for new residential construction. In addition, a number of the banks, of which there are only ten, control mortgage loan companies.

Table 3

MORTGAGE INVESTMENT AS PERCENT OF TOTAL ASSETS - NON-SPECIALIZED INTERMEDIARIES

Year	All Life Insurance Companies	Chartered Banks	Credit Unions	Pension Funds
		(millions of dollars)		
1962	44.2	4.5	28.6	9.1
1963	44.8	4.0	28.6	9.3
1964	46.8	3.5	28.1	9.4
1965	48.4	3.1	27.3	9.5
1966	50.6	2.8	26.5	9.3
1967	50.6	2.7	26.4	9.0
1968	51.3	2.9	26.7	8.6
1969	51.8	3.1	26.6	8.6
1970	50.6	3.1	25.9	9.2
1971	47.9	4.3	26.0	9.4
1972	45.2	5.6	27.0	9.3
1973	45.8	5.7	32.2	N.A.

N.A. — Not Available

Source: *Canadian Housing Statistics, 1973*

Credit unions and *pension funds* are the other major mortgage lenders. Credit unions initiate mortgages but pension funds acquire them in secondary markets.

C. *Government Intervention in Mortgage Markets*

The Federal Government through its Crown agency, *Central Mortgage and Housing Corporation* (CMHC), intervenes in the housing and mortgage markets in Canada. CMHC administers the National Housing Act and advises the Government on housing policy. There is no agency which makes advances to specialized mortgage lenders. reduction in holdings of government securities.
functions similar to those of the FDIC in the United States. The CDIC insures the deposits of most deposit-taking institutions. All federally incorporated institutions must belong to the CDIC.

Each of the provinces in Canada has either a Ministry of Housing or a Provincial Crown Corporation. Many of the NHA programs administered by CMHC involve the cooperation of these provincial agencies.

One of the CMHC's main functions is to insure mortgages under the NHA. Aside from the mortgage insurance function, government involvement in the mortgage market is largely in the area of low and moderate income housing. The major programs are as follows:

Under the *Assisted Homeownership Program* (AHOP) direct loans are provided by CMHC and subsidies are given to enable low- and moderate-income families to own a home without spending more than a specified proportion of their income on mortgage payments and municipal taxes.

In *public housing,* the Federal Government makes loans of up to 90 percent to provinces, municipalities and public housing agencies for the construction of public housing projects. It shares the subsidy costs on a 50-50 basis. It may also enter into a partnership arrangement with a province for the construction or acquisition of public housing units. In this case both the capital costs and the operating losses or subsidies are shared 75 percent by the Federal partner and 25 percent by the province.

In private *low rental housing,* CMHC will make *loans* up to 95 percent to persons or organizations at *preferred rates* for the construction of rental units. Charitable organizations may receive up to 100 percent of the lending value and a 10 percent direct contribution to the cost of the project (taking the form of a reduction in the mortgage amount). Start-up funds are also available where required.

CMHC also provides *direct loans* for cooperative housing both under AHOP and under a Federal-provincial partnership scheme.

Direct CMHC loans are also available for student housing for up to 90 percent of the cost of the project.

Aside from these functions, CMHC acts as a lender of last resort where funds cannot be obtained by a low- to moderate-income borrower from the private sector. During the late 1960s in particular, an attempt was made to use the CMHC lending programs to alleviate cyclical shortages of mortgage funds. CMHC also has experimented with various programs to reduce seasonal fluctuations in housing construction.

The government recently has proposed two *tax measures* favorable to mortgage and housing markets. One calls for an exemption of $1000 of interest received on securities of banks, trusts and mortgage loan companies, and government bonds. The other allows persons who have never owned a home to *deduct from income and deposit* up to $1000 a year for up to ten years to build up a *home purchase fund.* If this fund is used for this purpose, the proceeds also are tax free.

Finally, in 1973 Federal legislation authorized the creation of the *Federal Mortgage Exchange Corporation* to trade in residential mortgages and stimulate the development of a secondary market. It is not intended to become a major holder of mortgages.

IV. EXPERIENCE

A. *Acceptance of Roll-Over Mortgages*

The roll-over concept appears to have been well accepted for single-family housing by borrowers and lenders alike. Government officials report virtually no complaints about refinancing provisions, even though interest rates have risen substantially in recent years. However, since NHA

mortgages, which are government backed and involve low- to moderate-income families, have just begun to roll over, it is quite possible that pressures will develop since the rate change will be from roughly 9 1/2 percent to 11 or 11 1/2 percent.

In the case of large-scale residential and commercial developments, fixed mortgages matching the amortization period continue to be favored. Apparently, borrowers prefer the fixed contracts due to fears that rent increases will not match interest and price level increases, which has been the case in recent years, and the dominant lenders for large-scale projects, life insurance companies, prefer the longer-term contracts.

There is considerable pressure from some lenders to reduce the roll-over period on residential mortgages to one year. Reasons for this have not been clearly articulated but presumably, include the greater attraction of one-year deposits and the fear that public resistance may develop to the infrequent but potentially large increases with the existing instruments. It has also been suggested that the one-year roll-over mortgage would be more attractive to institutional investors. However, this appears to be at odds with the behavior of at least one such group, the life insurance companies.

B. *The Behavior of Mortgage Interest Rates*

As noted earlier, interest rates on term deposits and mortgages are determined by market forces and are not limited by law. Generally, interest rates on prime conventional mortgages have been one to one and one-half percentage points above the rate on prime industrial bonds. Rates on NHA mortgages have been below those for conventional mortgages but the spread has been declining, especially with the introduction of private mortgage insurance. Term deposits, the prime source of funds for mortgage lending, typically have been one-half of 1 percent below bond rates, although the spread has been more volatile. Mortgage and deposit rates for 1963 to 1973 are shown in Table 4.

Given the generally higher rates of interest in Canada compared to the United States and the lack of restrictions on mortgage rates, these rates have been above U.S. rates by a substantial margin briefly reaching a peak of 12 percent in 1974.

C. *Behavior of Housing Costs*

Canada has experienced very rapid increases in housing prices in recent years. The impact of increases on ownership costs has been exacerbated by the effect of inflation and high interest rates on initial mortgage payments given the level nominal payment pattern (within each five-year period) of Canadian loans. Table 5 illustrates the joint impact of these forces on the total monthly carrying cost of quality adjusted housing.

D. *Developments in Mortgage and Housing Markets*

The volume of mortgage financing has risen dramatically since 1966, rising more than $23 billion to $40 billion by the end of 1973. This gain

Table 4

INTEREST RATES ON NHA
AND CONVENTIONAL MORTGAGE AND TRUST
AND LOAN COMPANY DEPOSITS

Annual Averages - Percent

	Mortgage Interest Rates		Deposit Rates		
Period	N.H.A.[1]	Con-ventional	Demand and Savings[2]	1 Year Term Deposits[2]	5 Year Term G.I.C.s
1963	6.35	6.97	3.67	4.61	N.A.
1964	6.25	6.97	3.72	4.70	N.A.
1965	6.25	7.02	3.88	5.14	5.52
1966	6.83	7.66	4.00	5.83	6.06
1967	7.34	8.07	4.00	6.06	6.34
1968	8.64	9.06	4.00	6.79	7.01
1969	9.40	9.84	4.00	7.67	8.03
1970	10.06	10.45	4.00	7.96	8.52
1971	9.04	9.43	3.63	5.94	7.72
1972	8.95	9.21	3.50	5.89	7.62
1973	9.40	9.59	3.79	7.37	8.21

N.A. — Not Available

Source: OECD Table I.B/04 & *Bank of Canada Review*, May 1974

[1]Mortgage rate for owner-occupied houses. Rates for rental units dip slightly.

[2]Savings deposit rates refer to chequable savings deposits only; both these rates are based on a survey of a few large trust and loan companies, hence are "typical" rates. This survey is conducted by Bank of Canada every month. These data are obtained from their internal documents.

reflects a substantial increase in new construction and a rapid increase in the price of the existing housing stock.

Housing starts in the 1960s followed a cyclical pattern similar to that of the United States, with a somewhat smaller percentage decline in 1966 but a larger one in 1969-1970. From 1971 to 1973 they were more stable than in the United States. However, 1974 again witnessed a precipitous decline, dropping from an annual rate of 286,000 units in January-February to 165,000 in November.

Although it is impossible to adequately segregate the effects of supply and demand factors on starts, several observations are in order. The recovery of housing following the 1969-1970 downturn can be attributed to

Table 5

HOUSING PRICES, PAYMENT RATIOS, AND TOTAL CARRYING COSTS

	Housing Price Index[1] (1)	Mortgage Interest Rate (2)	Index of Initial Payments[2] (3)	Total Cost Index (4)=(1)x(3)	Consumer Price Index (5)	Relative Price Index (6)=(4)(5)
1963	100.0	6.87	100.0	100.0	100.0	100.0
1964	103.9	6.97	100.0	103.9	101.7	102.2
1965	109.0	7.02	100.0	109.0	104.3	104.3
1966	117.9	7.66	105.6	124.5	108.2	115.1
1967	123.4	8.07	109.5	135.1	112.0	120.6
1968	132.0	9.06	119.5	157.7	116.6	135.2
1969	142.4	9.84	126.5	180.2	121.8	147.9
1970	145.9	10.45	132.6	193.5	125.9	153.7
1971	152.1	9.43	122.6	186.5	129.5	144.0
1972	162.1	9.21	120.3	195.0	135.7	143.7
1973	179.8	9.59	124.1	223.1	146.0	152.8

[1]Adjusted for size changes.

[2]Represents relative initial monthly payment on a new 25-year mortgage at current conventional mortgage rate.

both supply and demand forces. On the supply side, the CMHC removed ceilings on NHA loans and allowed them to be written on a five-year roll-over basis. This made mortgages more attractive to lenders and brought the chartered banks back into the market. On the demand side, the CMHC instituted "high ratio" loans up to 95 percent and relaxed various income tests.

Further positive measures, including private mortgage insurance, buoyed the market into the 1970s. Price increases were substantial, but again it is difficult to determine whether these had a dampening or strengthening effect on demand.

The decline in starts in 1974 appears to have been primarily due to demand forces. In contrast to the United States, there was little evidence of credit rationing. In the current decline, multi-family starts are more affected. This is attributed by observers to uncertainty about whether rental rates will keep up with the inflationary expectations reflected in the high interest rates and, perhaps, to some overbuilding. In the case of single-family residences, the CMHC cut back on "high-ratio" mortgages to stem price rises and this certainly had an effect. However, the initial carrying cost factor, shown in Table 5, undoubtedly is a major contributing force.

V. SUMMARY AND CONCLUSIONS

The Canadian housing finance system with its roll-over mortgages which allow a high degree of asset and liability matching for lenders and

with no rate ceilings appears to have avoided the credit rationing, the dis-intermediation and the accompanying squeeze on lender profits which has plagued U.S. housing markets. However, given that the roll-over mort-gages involve level nominal payment streams, the real time stream of pay-ments for home purchases have been seriously distorted by inflation and high interest rates. The resultant rapid rise in the initial carrying costs of housing has undoubtedly contributed to the current downturn in con-struction activity.

REFERENCES

Canada, *National Housing Act,* 1973.

Canada, Delegation to OECD Working Party on Housing Finance, "Ke' Characteristics of Institutions and Instruments of Housing Financ in Canada," June, 1974.

Central Housing and Mortgage Corporation, *Annual Reports,* 1970-1973

——————. *Canadian Housing Statistics,* March, 1974.

——————. Memo to M.I.T. Mortgage Study Group, October 2: 1974.

Jarrett, Robert F. S., "The Residential Mortgage Market in Canada *Bank of Canada Review,* May, 1974.