Mortgage-backed securities: the Canadian experience

By Joe O'Brien

CANADA'S secondary mortgage market, still essentially based on private sales of packages of whole mortgages, is very much in its infancy compared with the relative size and sophistication of the US secondary market, which expanded rapidly following the introduction of mortgage securitisation through mortgage-backed securities.

This article examines securitisation and its emerging role in the secondary mortgage market in Canada. The real challenge for Canadians is not to invent new techniques but to continue to be creative in developing existing mortgage instruments and techniques and, perhaps more importantly, to be innovative in adapting to Canadian markets the growing expertise in financial vehicles which exists in the US and abroad.

WHEN it comes to securitisation, Canada is barely scraping the surface. The challenge is to close the gap quickly through innovation and imagination, and through creativity, choosing what can be applied profitably and with social utility to the Canadian markets.

The future of the secondary mortgage market in Canada can be summed up readily. The right conditions are being put in place now which will result in a significant explosion over the next six years of secondary market dealings involving mortgages. With the introduction of mortgage-backed securities, the Canadian secondary mortgage market appears poised to expand rapidly and to scatter its benefits throughout the Canadian financial industry and the economy.

The observation has been made that the past is a prologue to the future. This article reviews what happened in the past to expose the key factors which were considered in developing the National Housing Administration (NHA) Mortgage-Backed Securities machinery. NHA Mortgage-Backed Securities represent a financial instrument which "securitises" residential first mortgages. The recent birth of this financing vehicle is the basis for the conclusion that a major expansion is ahead in the Canadian secondary mortgage market.

Interest of the financial industry in this new product is already so well developed that an abbreviated name was found even before a first issue of NHA Mortgage-Backed Securities had appeared. The legal identification, "NHA Mortgage- Backed Securities", is too awkward a mouthful for the financial community. They have chosen instead: "Cannie Mae" — an obvious linking of Canada with the Ginnie Maes of the United States as well as a convenience for bond trading desks.

Secondary mortgage market — the past

While the fact is not fully appreciated, Canada has had a secondary mortgage market for more than 30 years in that existing mortgages have been, and continue to be, resold to investors — corporate, institutional and individual. As mortgage bonds, a form of securitisation, large mortgages — usually industrial and commercial — are sold to larger investors. Blocks of mortgages have been used to secure loans to lending institutions.

The financially-creative Canadian investment or mutual funds industry developed mortgage funds. Pools of mortgages are the principal assets of these specialised investment funds which then sell and redeem their units at net asset value. Bank of Montreal's First Canadian Mortgage Fund is an example. The Investors Group has a Mortgage Fund, and then there are the Royal Trust M Fund, Mackenzie Mortgage and Continental Mortgage, and others. These mortgage funds are marketed to both large institutional investors and individuals.

Canada Mortgage and Housing Corporation, a goverment agency, has, through CMHC-insured NHA residential first mortgages, provided a readily-understood product. CMHC's prescribed policies with respect to mortgage underwriting, administration and documentation have provided an element of consistency to the Canadian mortgage market.

In the years 1954 to 1961, it is estimated that some $266 million of NHA mortgages were resold by the originating CMHC-approved lenders. That amount is equal to 8.5% of the total of $3.1 billion of NHA mortgages originated in that period. These sales were by the approved lenders to other financial institutions which did not have the facility to create mortgages but which wanted such financial instruments in their portfolios.

In an effort to accelerate development of the broader secondary market, from 1961 to 1966 CMHC carried out a series of auctions from its own portfolio to members of the Investment Dealers Association. More than $1 billion moved out with some, in turn, resold by the purchasing investment firms.

In 1970, CMHC was instrumental in the formation of a special project team on new financing mechanisms and institutions. This group had three major recommendations: 1) creation of a residential mortgage market corporation; 2) creation of mortgage investment companies; and 3) variable term mortgages. In 1973, the federal government introduced legislation to bring about all three recommendations.

A Federal Mortgage Exchange Corporation was to be created. Its principal functions were to buy and sell residential mortgages in the future (in effect, act as an underwriter), and to make loans of up to one year on the security of such mortgages to the new mortgage investment companies. Here was an agency to provide liquidity.

Creation of new mortgage investment companies was to become possible under the Loan Companies Act and income tax legislation was to be changed to give these companies conduit status for tax purposes.

The bill actually became law on 3 December, 1973, and several mortgage investment companies were formed. But time and circumstances changed. The Federal Mortgage Exchange Corporation was never activated.

Today, secondary market dealings in mortgages remain generally private and relatively limited. In 1985, it is estimated that about $500 million of mortgages and other property loan contracts changed hands. That is, mortgage lenders sold such paper to large investors, to the specialised mortgage funds and others.

Creation of NHA mortgage-backed securities

It was evident from experience that certain key ingredients were lacking in the secondary market as it had existed. A properly-functioning secondary market requires *active* buyers and sellers of existing mortgages and an *information* network providing data on prices and quantities. "Liquidity" probably best sums up the missing qualities. Therefore, a key objective was to create a high-quality financial instrument which would encourage an active and liquid secondary market.

This need for liquidity in the secondary market is not something newly discovered. The series of reports produced in the early 1970s for CMHC highlighted the need for an active and liquid secondary market to ensure the efficient flow of capital into residential mortgages. The question of liquidity and the need to overcome obstacles to the trading of mortgages have formed part of discussions between CMHC and the investment and lending communities for over 15 years. In the end, it became generally acknowledged that a government guarantee of cash flow would be key in achieving the desired liquidity.

The catalytic event for NHA MBS turned out to be the astronomical interest rates of the early 1980s and the demonstrated need for longer term mortgages. The U.S. market had already shown that mortgage-backed securities could attract investors into the secondary market for longer term, fixed rate mortgages. The key to an active MBS market is the same for the secondary mortgage market, namely liquidity, and, as previously concluded, a government guarantee of timely payment.

Legislation permitting CMHC to provide such a guarantee was passed in 1984 by way of amendment to the National Housing Act, and consultations with the financial industry began in earnest.

CMHC is a Canadian government agency. Its objectives historically have been, and are, in the broader national interest. Therefore, in initiating the studies and programmes which led to the creation of NHA MBS, CMHC had two primary economic objectives:

- increasing the supply of housing for Canadians by attracting more funds into mortgages; and
- encouraging longer-term mortgages, which was the original basis of NHA mortgages in the early years of CMHC.

Subsidiary objectives include smoothening the flow of funds going into residential construction and augmenting the financing flexibility of Canadian financial institutions.

Mortgage securities — general

Before looking in more detail at the newly created Canadian NHA Mortgage-Backed Securities, it may be helpful to examine three types of mortgage securities.

Mortgage-backed bonds. Mortgage bonds are similar to corporate bonds or debentures. They represent a general obligation of the issuer, secured by mortgage collateral. They have a known maturity date and normally have a pre-determined, scheduled cash flow. The mid-1987 $50 million issue by VanCity of Vancouver (a credit union), consisted of debentures secured by an over-collateralisation of NHA insured residential mortgages, and is perhaps a good example of a mortgage-backed bond issue. The investor owns the bonds (or debentures), not the underlying mortgage collateral. The issuer owns the collateral and retains the cash flows generated by the collateral.

Mortgage pay-through bonds. As we will see below when describing pass-through securities, mortgage pay-through bonds combine aspects of pass-through securities with the above-described features of mortgage-backed bonds. Like the latter, a pay-through bond is a general obligation of the issuer, secured by mortgage collateral. However, the cash flow from the collateral is linked to the cash flow on the bonds. While payment frequencies may differ (e.g. monthly pay collateral with semi-annual pay bonds), the principal and interest income from the mortgage collateral must be sufficient to cover principal and interest payments on the bonds.

→ 12

← 11

Mortgage pass-through securities. The new NHA mortgage-backed securities are mortgage pass-through securities. With a pass-through security, investors own an undivided interest in a pool of underlying mortgages and receive *pro rata* shares of the cash flows. We are therefore no longer dealing with a general obligation of the issuer secured by mortgage collateral. In this case, investors have in effect bought the mortgages from the issuer, and their basic security is the cash flow from those mortgages. Each pool has, 1) a coupon or pass-through rate, 2) an issue date, 3) a maturity date, and, 4) a payment delay.

By way of illustration of these last mentioned characteristics, the recent first issue of NHA MBS had a coupon or pass-through rate of 9¼% (based on approximate 10¾% weighted average interest on the underlying mortgages), an issue date of 1 January, 1987 (with settlement on 5 January, 1987), a maturity date of 1 August, 1991 (the maturity date of the last maturing mortgage in the pool), and a 15 day payment delay (with the first payment to the investors to be made on 15 February, 1987, representing interest and principal received by the issuer on 1 February, 1987).

As in the case of Ginnie Maes in the U.S., the NHA MBS provides what is called a "fully modified" pass-through feature. The investors receive interest plus scheduled principal each month, even if mortgagors of the underlying mortgages fail to make payments.

How NHA MBS fits in

The creation of the NHA MBS was largely completed in the fall of 1986 — a relatively short period for such a major undertaking filled with a seemingly endless array of considerations, problems and rulings which had to be resolved. The first securities were marketed in January, 1987.

NHA MBS is designed to combine:

● High quality, ranking with Government of Canada bonds and obtained by combining long-established *insurance* of principal and interest in favour of the mortgage lender with a new unconditional *guarantee* of *timely payment* in favour of investors in the securities.

● Liquidity, by pooling comparable residential first mortgages to create readily-marketable securities representing a proportionate ownership in the pool, and by providing up-to-date information on the status of the securities so that secondary market prices can be set.

● Simplicity, by centralising administration — such as issuance of certificates and monthly cheques, transfer of ownership of certificates — in a Central Payor and Transfer Agent, Guaranty Trust Company of Canada.

Basic characteristics

The following is a brief summary of the significant NHA MBS characteristics, which for the most part are aimed at providing homogeneity with respect to the mortgages in any pool.

MBS are securities representing an undivided interest in pools of NHA insured residential first mortgages having a minimum term of five years. Interest rate spread between the mortgages in a pool can be up to a maximum of 1%. All mortgages must be up-to-date in payments. Individual mortgages are limited to 15% of the total, except in the case of multi-family social housing loans where the limit is increased to 25% of the total. The increase to 25% in the case of social housing loans recognises the absence of pre-payment privileges and the remote possibility of defaults which can cause early liquidations.

The range in weighted average remaining amortisation for the pooled mortgages is 28.2%, which figure allows for the inclusion in the same pool of mortgages with remaining amortisations of 25 years to 19½ years. (This permits the inclusion in the same pool of new and first time roll-over five year mortgages.)

The security, in addition to the insurance of principal and interest by CMHC, a Federal government agency, is CMHC's guarantee of the pass-through of timely payment of interest, principal, including pre-payment of principal and penalties to holders of the securities, after servicing fees.

The minimum term of the MBS can be four-and-a-half years in view of the fact that five year term mortgages can have aged up to six months and still be eligible for pooling. These securities can be issued in multiples of $5,000 or higher. The MBS coupon rate must be at least ½% below the rate of the lowest mortgage in the pool. Minimum pool size is $2 million with no limit on the maximum size.

No prospectus is required for NHA MBS issues. However, an offering circular is required. The basic content of the offering circular is prescribed by CMHC and is set out in the programme guide. The specific information with respect to each issue is provided by the issuer, subject to CMHC's approval, by way of an addendum to the prescribed document and contains information relevant to the pool characteristics which may impact the average life and duration of the security including:

a) weighted average mortgage rate;
b) weighted average remaining amortisation;
c) the geographical distribution of the mortgages (by province); and
d) a summary of the pre-payment provisions applicable to the pooled mortgages.

Advantages to issuers and investors

NHA MBS is tailored to the needs of issuers and investors. For a mortgage lending financial institution, probably the single most important consideration is to match funds coming in with funds going out. NHA MBS facilitates that process by providing liquidity, thereby attracting longer term investors.

Maximising return is an obvious objective. For approved lenders, NHA

→ 14

← 12

MBS represent an opportunity to continue to enjoy fee and other income from administration of mortgages while gaining the flexibility to adapt portfolios to fund flow requirements and changes in general interest rate trends. The off-balance sheet treatment is an important feature.

Judging by the response of the investment industry at meetings introducing NHA MBS, and with respect to the initial issues, these securities will be greeted most enthusiastically and eagerly by investors — institutions, corporate and individual.

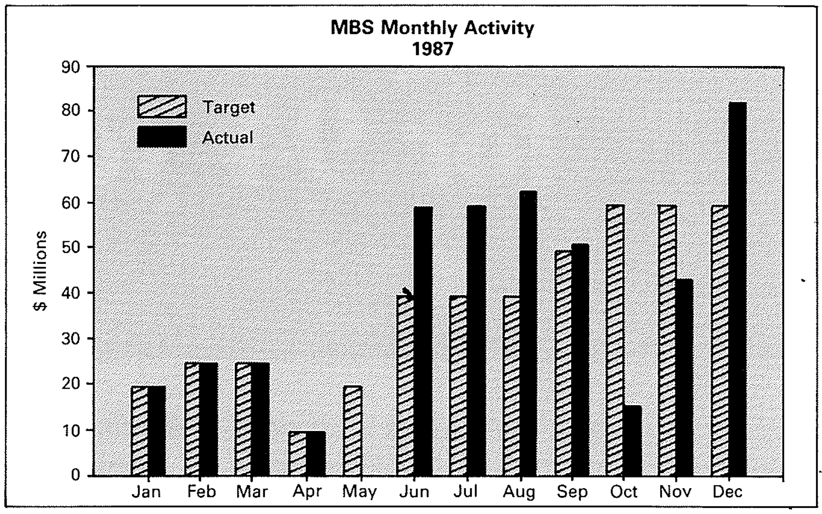
A typical NHA MBS issue will embrace almost all possible features attractive to investors:

- A coupon rate of return higher than a comparable government bond.
- Underlying mortgage insurance of the value of the security, by CMHC, a Federal government agency.
- A guarantee of monthly payments mailed on the 15th of the month and starting 45 days after issuance, again with the highest level of guarantee possible, that of CMHC.

Institutional and corporate investors will find these securities both convenient and attractive financially in meeting regular funding requirments, such as pension payments to former employees.

Individual Canadians, especially those such as pensioners wanting a regular, guaranteed return and predetermined cash flow, represent a fast-growing market. The convenience and $5,000 denomination are obvious attractions to the general investing public.

Steps have been taken to facilitate the evolution of a secondary market in these securities. The investment industry has indicated that there is a sufficient spread to encourage an active over-the-counter trading market with regular quotations in financial newspapers. Some preliminary discussions have been held regarding the possibility of listing on stock exchanges. The Investment Dealers Association is providing a pricing formula and administrative procedures for handling MBS, both actions designed to simplify secondary market trading.



Views on what is ahead for these new securities are as varied as the number of individuals expressing them. In the final analysis, the marketplace of freely acting buyers and sellers will provide the only realistic answers.

1987 — THE FIRST YEAR OF OPERATIONS

Volumes of business

Including the first issue on 1 January, 1987, a total of 51 NHA MBS pools of mortgages were securitised during 1987 for a total dollar value of $456 million, representing an average pool size of $9 million. Fourteen different issuers were involved, including four of the six major national banks and 10 trust companies.

Just under 10% of the dollar value of the issues involved pools of 10-year mortgages. The lengthening of terms of residential mortgages beyond five years is one of the objectives of this government-sponsored programme.

It is interesting to note that in the area of 80-85% of the dollar value of the issues was sold in the retail market. A reasonably good portion of this was to smaller investors. A minimum certificate amount of $5,000 was designed to accommodate small retail investors.

It is obvious that in order to attract institutional interest on a large scale, we will need to see larger issues and a larger, more active secondary market.

The key spread

With NHA MBS being priced over Canada's (government bonds), the spread between Canada's and the average interest rate on the pooled mortgages is a key factor in the determination of issuers to go the MBS route.

In terms of the first year's activity, it would appear that the desired spread between Canada's and the pooled mortgages average interest rate is in the 1.50-1.75% range. This overall spread would allow a coupon rate in the 0.50-70% range over Canada's, leaving the issuer with a pre-issue costs spread in the 100-125 basis points range. All-in issue costs on a five-year MBS appear to be in the 15-25 basis points range.

An MBS coupon rate at the foregoing spread over Canada's makes the MBS an attractive alternative for investors to government bonds, and the issuer's net spread in the above range would ensure that funding mortgages through NHA MBS would remain cost competitive with the other sources of mortgage funding including, in particular, guaranteed investment certificates and term deposits.

Although the first year's results were satisfactory, a substantially higher first-year volume might have been achieved had there not been a second and third quarter contraction in the spread between five-year mortgage rates and five-year Government of Canada Bonds.

At the time of the first issue, the spread between Canada's and the average interest rate in the pool was 1.75%. By the second quarter, as a result of a rise in Government Bond rates without a comparable increase in mortgage rates, the spread was reduced to about 1.00%. At the same time, NHA MBS coupon rates dropped from about 60-65 basis points over Canada's to as low as 15 basis points, well below the anticipated and desired MBS coupon spread of 40-70 basis points.

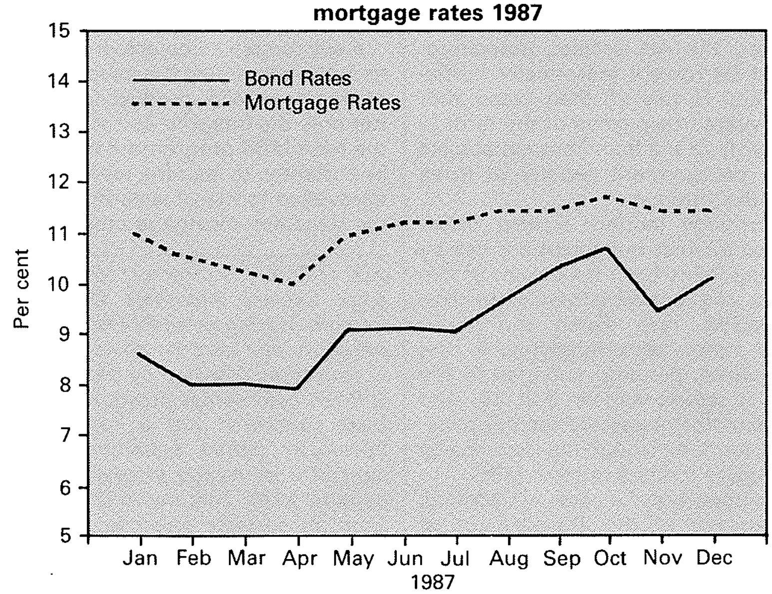
As a result, potential issuers, particularly the major banks and trust companies, both of which institutions have to date shown a reluctance to sell MBS at a discount or adopt hedging techniques to cover interest rate risks for MBS purposes, kept out of the MBS market. The smaller trust companies, capable of dedicating all of their five-year mortgage product to MBS, adopted hedging strategies and remained in the market despite the narrow spread.

By November, the spread between the mortgage rates and Canada's was again in the 150 basis points range with NHA MBS trading in the secondary market at 40-50 basis points over Canada's.

The level playing field

One of the interesting developments to date in the programme is the active participation by small and medium-sized trust companies. This point is noteworthy because one of the unique characteristics of the Canadian mortgage market is the dominance of the large national financial institutions, including the major banks, trust and insurance companies.

Comparison of 5 year bond and mortgage rates 1987



Traditionally, the small regional and local trust companies have had to pay higher interest rates to attract deposits and, as a result, charge higher rates for their mortgages. The introduction of the NHA MBS programme has created what is being referred to as a level playing field, in that the small players can, as a result of the government guarantee of timely payment, raise funds at the same cost as the majors. The securities issued under the NHA MBS programme are rated essentially on the strength of the government guarantee.

In the first year of the programme, five regional trust companies accounted for approximately 70% of the volume of NHA MBS activity by number of issues and approximately 55% of the dollar volume. It is anticipated that the medium and smaller sized companies will continue to play a significant role in the growth of the NHA MBS market.

Pre-payments

The impact of pre-payments on the pricing and other considerations with respect to mortgage-backed securities is not peculiar to the NHA MBS. However, unlike long-term "open" US mortgages, Canadian home-ownership mortgages are relatively short term fixed term mortgages and contain pre-payment rights. The most common terms of mortgages are one, three and five years. Six months terms are available, as are recently introduced seven- and 10-year term mortgages.

As a result of the intense competition in the Canadian mortgage market, contractual rights of pre-payment have become more and more generous. In addition, they are not standardised, because of competition, and can vary from lender to lender. It is obvious, therefore, that for the foreseeable future it will be difficult to guesstimate the pre-payment experience for MBS pricing purposes, notwithstanding that for the most part, as in other jurisdictions, pre-payments will be influenced primarily by significant upward movement in interest rate levels. → 16

← 15

Typical pre-payment provisions in Canadian residential mortgages are:

i) the right to pre-pay 10% (some lenders now allow 15%) of the original amount of the mortgage without notice, bonus or penalty, once in each calendar year;

ii) another typical provision allows borrowers to increase their mortgage payments once in each year providing that the cumulative increase over the term of the mortgage does not exceed 100% of the original payment;

iii) in accordance with CMHC policy on its insured loans with a term of five years, the borrower has the right of pre-payment in full after the third anniversary of the mortgage, subject to a penalty of three months' interest. The Canada Interest Act provides that all mortgages to individuals, whatever the term, are open after the fifth year, subject to a penalty of three months' notice.

WHAT'S AHEAD FOR CMHC?

CMHC has continuing formal responsibilities in this NHA MBS process for securitisation of residential first mortgages. These responsibilities include determining organisations which will be eligible as issuers, verifying eligibility of the mortgage pool, authorising Guaranty Trust to issue securities, and making certain that the mortgage-administering organisation is suitably capable.

By far the most important responsibilities are issuing and making certain that the mortgage insurance and timely payment guarantees are lived up to. The proven performance of CMHC in its long-established mortgage insurance programme will be re-established and re-emphasised as CMHC undertakes to guarantee timely payment, the automatic payment to investors should an issuer fail to meet its servicing obligations.

CMHC will continue to act as a liaison between the government of Canada and those enterprises which are part of the housing industry — builders, financial organisations and investors. Fine tuning of the NHA MBS mortgage programme and government laws and regulations will be necessary from time to time if the objectives of creating and maintaining a supply of longer term mortgage funds are to be achieved.

The Canada Interest Act requires amendment if longer term closed mortgages are to become generally available. Efforts are being made to resolve this situation. As indicated earlier, the Act entitles unincorporated borrowers (essentially home-owners) to pay off their loans after five years irrespective of the term to maturity in the loan contract subject to a pre-payment penalty of three months' interest.

Mortgage lenders protect themselves against re-investment risk by writing loans for a maximum of five years, and renewing them at the then prevailing rate. Open mortgages raise other considerations. In the meantime, pending changes to the Act, it would appear that 10- and 15-year mortgages will become available, funded through the issuance by mortgage lenders of NHA MBS.

An important function of CMHC as an agency of the Government of Canada is to encourage private enterprise to undertake action which works towards national goals. Canada's financial industry has proved that it can be highly inventive and creative. Growing awareness of the opportunities available in securitising mortgages has already resulted in one company — Counsel Trust — creating an organisation to market Guaranteed Mortgage Certificates where the guarantee of timely payment is made by a private financial institution — in this instance Citibank. There is a further redemption guarantee as an effort to meet the liquidity requirements of the marketplace.

It will remain an objective of CMHC to nurture carefully the development of this new MBS product to ensure not only the integrity and success of the NHA MBS programme but, more importantly, to lead the way to more innovative forms of securitisation in the Canadian mortgage market. ■

JOE O'BRIEN is director, NHA Mortgage Backed Securities Centre — Canada Mortgage and Housing Corporation, and also an adviser to the Corporation. A lawyer by training, Mr O'Brien held senior positions with a trust company and a real estate developer before becoming president of a mortgage insurance company in 1978. This paper is adapted from an address given to the First Annual International Mortgage Backed Securities Forum, held in New York in January 1988.

NHA mortgage-backed securities

A TOTAL of 11 issues by eight different issuers were approved as of the 1 December issue date. This brought the total for the year to 51 MBS issuers for a total mortgage pool value of $456 million, a little in excess of the year's target figure of £450 million.

The strong recovery in the marketing of MBS issues in December resulted from a general improvement in the bond market as well as from several additional factors, including:

1. An increase in the spread between bond rates and mortgage rates in October and November.
2. The use of hedging by issuers, including in particular the trust companies.
3. An increase in bond prices resulting from the flight to quality income securities by investors following "black Monday."

Of the year's total, the banks issued 27.1% of all mortgage-backed securities, the trusts 68.5% and loan companies (subsidiaries of banks) 4.4%. Just under 10% of the dollar value of issues was for 10-year term MBS, with the balance based on pools of five-year mortgages.