

## Secondary Mortgage Market in Trinidad and Tobago - The Home Mortgage Bank

**T**he Home Mortgage Bank of Trinidad and Tobago is a joint undertaking of public and private enterprise. It is a privately managed institution whose major shareholders are the Central Bank of Trinidad and Tobago, the National Insurance Board, commercial banks, insurance companies, and the International Finance Corporation, an affiliate of the World Bank.

The Home Mortgage Bank was created for a number of reasons:

- To develop and maintain an organised secondary mortgage market so as to increase the availability of mortgage credit in Trinidad and Tobago. Given the tax-free status on its bonds, it was also expected that mortgage interest rates would be reduced.
- To contribute to the mobilisation of long-term savings for housing investment.
- To support the development of a national system of housing finance and promote leadership in the housing and home finance industry through the development of new programmes and techniques for housing finance.
- To promote the growth and development of the capital market.

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The Home Mortgage Bank purchases mortgages made by primary mortgage lenders such as trust companies, life insurance companies and other lenders approved by the Bank. It finances these purchases by the sale of mortgage bonds to institutional and individual investors. These funds are then used by the lending institution to finance additional housing loans, thereby increasing the supply of money in the residential mortgage market.

Primary lenders are approved on the basis of their financial position, their ability to service such loans and the characteristics of the mortgages which have been placed. These mortgages will be arranged in "pools" of similar amortisation term and interest rate. The Home Mortgage Bank can also resell pools of mortgages to approved institutions.

The role of the primary lender will be to originate the mortgage and to continue to service and administer the loan once the mortgage has been sold to the mortgage bank. It will also be the responsibility of the primary lender to handle delinquencies and loan liquidations. The primary lender receives a fee of 1.25% from The Home Mortgage Bank for conventional loans and 1.50% for approved mortgage company loans. This compares with three-eighths of 1% in North America for loan administration

and no indemnification premium, except as provided for separately in public or private mortgage insurance plans.

The Home Mortgage Bank can offer standby purchase commitments to primary mortgage lenders in order to stimulate new residential projects.

In addition to its share capital of \$50 million, the Bank will issue debt instruments in its own name. The purchase of mortgage loans will be financed largely by the issue of short, medium and long term bonds at competitive rates of interest. The Government of Trinidad and Tobago has provided for a tax-free status on the interest from HMB bonds up to maximum of \$300 million, after which further amounts may be approved by the Minister of Finance.

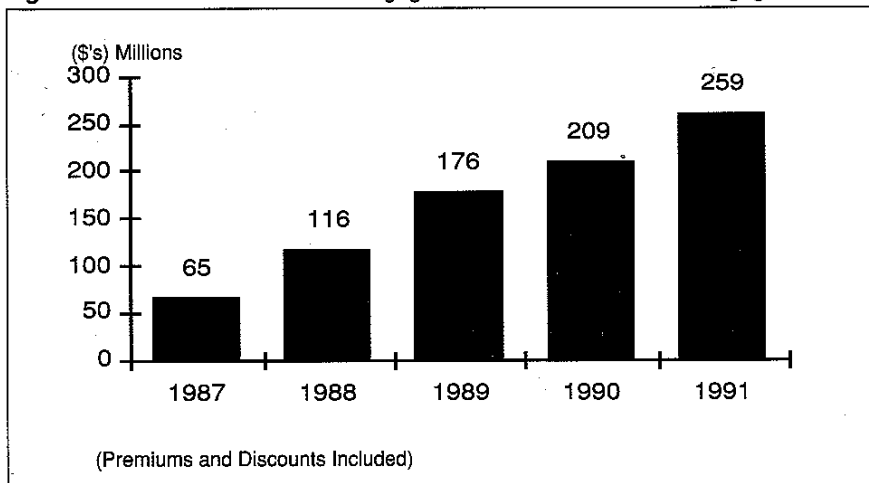
In establishing the price it will pay for mortgages, the HMB takes a number of factors into account:

- Cost of its debt;
- Risks of any assets/liability mis-match;
- Risks of underwriting loss;
- Bank's expenses;
- Return on equity;
- Alternate sources of funds for the primary lender.

While the emphasis in The Home Mortgage Bank's policy structure was intended to be

# SECONDARY MARKETS

**Figure 1 : Accumulated Value of Mortgage Purchases of the Home Mortgage Bank**



on new construction, the slowdown in Trinidad's oil-based economy provided an opportunity for the Bank to build some confidence within the mortgage market while allowing primary lenders to sell existing loans, thereby providing hard-pressed mortgagors with the opportunity to re-finance first and second mortgages.

How can the capital market assist mortgage liquidity and affordability? To begin with, structural enhancements of our various economic systems are preferred to the quick-fix type supply solutions generally engineered by government. This has, in the past, caused problems in the cycle of housing production, as well as providing inflationary pressure to house prices during such counter-cyclical pushes. With the difficulty of many of the Caribbean governments in respect to their deficits, the time has come in which to seek out new systems of housing finance and to find other ways of stabilising supply and interest rate in mortgage finance.

From the perspective of mortgage loan originators in the United States, primarily regional savings and loan institutions, the

development of secondary market activity has had very positive consequences. Lenders who were carrying low-yielding or unproductive loans have, in many cases, been able to sell them, on a discounted basis, into mortgage pools for security issues. Although these sales may have resulted in the realisation of losses, they had the beneficial effect of freeing up capital to be re-directed into more profitable areas, thereby increasing future profit potential.

In addition, the ability to sell new mortgages into pools has enabled lenders to increase their liquidity and thereby to increase the volume of loans which they are able to process. This has greatly expanded the fee income earned by many lenders for processing mortgages. In fact, many lenders in the United States have become "mortgage bankers", concentrating primarily on the arrangement and sale of loans to earn their income, rather than the spread margin normally earned by retaining loans for their own accounts.

It would appear, considering the number of institutions providing some form of mortgage finance in the region, that some stream-

lining and consolidation of function is necessary. Coupled with such a consolidation effort should be the expansion of mortgage-type instruments available to the mortgagor, e.g. refinancing mortgage wraps, home improvement loans, etc.

The fundamental appeal of mortgage-backed securities is the attractive yield which they historically offered, combined with a high level of security. As in the case of any investment, the attractive yield relates to market risk factors. In the case of mortgage-backed securities, the primary risk assumed by investors is the risk of undesirable repayment of principal. This risk/return relationship is closely analogous to that which applies to callable bonds, where investors receive a yield premium relative to investors in traditional bonds as compensation for the "call risk" which they assume. The other significant risk factor relevant to mortgage-backed securities is, of course, the security of principal and interest, which in turn is determined by the quality of the guarantee or insurance which supports the security.

Prepayment risk refers to the possibility that a security holder will receive an unexpected principal payment at a time when market yields have dropped relative to the yield created by the instrument which is pre-paid. An investor in this position finds himself in this predicament of having to re-invest his principal at a rate of return which is lower than which he was earning with his original investment.

Traditionally this prepayment risk is compounded, in the case of mortgage-backed securities, by a phenomenon which is commonly referred to as the "negative convexity" of the mortgage market. This term refers to the relationship between the market behaviour of investors and borrowers. As interest rates fall, home-owners are more inclined to prepay their existing mortgages

# SECONDARY MARKETS

in an effort to refinance at the lower cost. Conversely, as mortgage rates rise, homeowners are more inclined to carry their mortgages to their full term, since they are enjoying borrowed funds at a cost which is less than the current market rate.

It is clear that this pattern of behaviour on the part of mortgage borrowers is in direct conflict with the investment objectives of individuals who may purchase securities based on such mortgages. At a time when interest rates are dropping, an investor who owns a security based on a higher yielding mortgage is enjoying a premium to the market rate. Therefore, he is interested in holding his investment to its full term since any early recovery of his principal will result in the dilemma of having to re-invest the money at lower market rates.

Similarly, the holder of a mortgage-backed security in an environment of rising interest rate would prefer to receive early repayment of his principal, in order that he might have an opportunity to re-invest the money at a higher yield. These competing objectives of security holders and mortgage borrowers result in a significant concern for the purchasers of mortgage-backed securities.

With respect to the issue of investment security, the point should be made that mortgage-backed securities are generally regarded as being highly secure. There is little doubt that mortgage debt has historically been the most secure form of personal debt obligation available to lenders. This is a result of the fact that, historically, residential real estate values have enjoyed constant appreciation over time.

As a result, the first level of security with respect to a mortgage obligation, being the underlying real estate, is generally of sufficient value to secure the obligation fully. When the indemnity obligation of a guarantor or an insurer is laid on top of the inherent value of the real estate collateral, a level of security of principal results which is generally perceived by the market to be very high.

In attempting to assess the yield generated by a mortgage-backed security, a number of problems arise. The most significant of these, as has been referred to previously, is the uncertainty created by prepayment risk. Normal investment yield calculations, such as those applied to bonds, are based on the

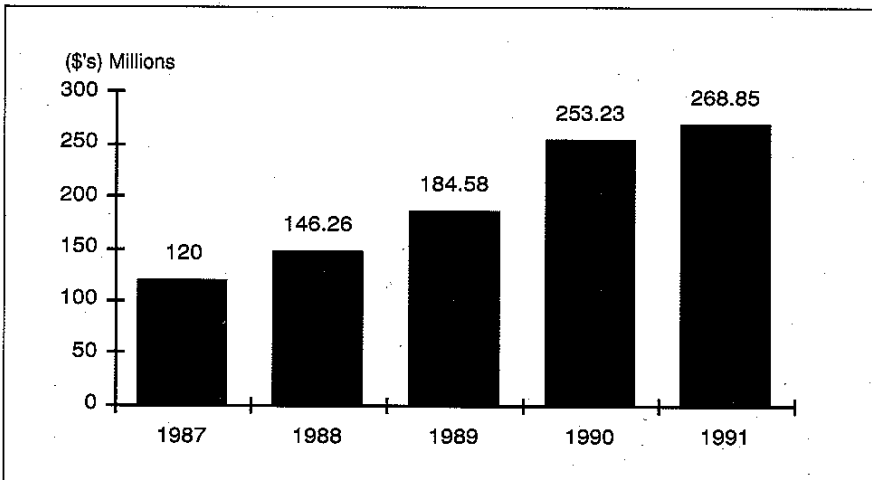
assumption that the investment will be held for its full term to maturity.

However, because of the uncertainty created by the prepayment risk, certain conventions have been adopted in the investment industry. The most common of these is the "12 year life" assumption which presumes that all the mortgages underlying a security are brand new, bear the same interest rates, and will be prepaid at the end of the 12th year. This assumption is clearly of value in attempting to develop a standardised yield calculation for comparison purposes. However, given the obvious uncertainty inherent in generalising about the prepayment pattern of the broad range of mortgages underlying a specific mortgage-backed security, there are clear deficiencies in this approach.

In an effort to compensate for these deficiencies, other calculations have been developed. Two of these are the weighted average coupon (WAC) and the weighted average maturity (WAM). These calculations are applied to a pool of mortgages in an attempt to assess its investment parameters at the time when securities are first issued against the pool. However, unless these numbers are regularly updated, as the profile of the pool is altered by prepayments and foreclosures, the figures can end up being somewhat misleading. Another drawback of this approach is the fact that, due to such considerations as timing influences, a yield calculation, based upon averages, is rarely accurate.

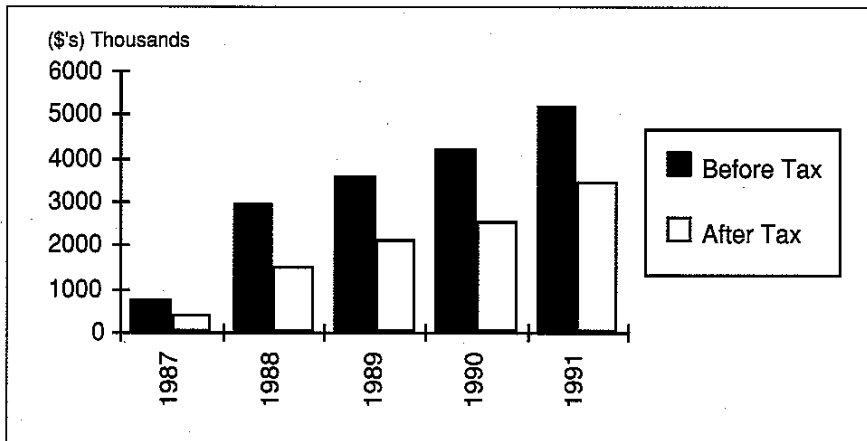
Another common means which has been adopted in an effort to predict the projected life of the mortgages in a pool has been to attempt to estimate duration on the basis of government statistics for the average duration of mortgages in specific market areas. The obvious problem with this method is that historical factors affecting prepayment over time, such as interest rate levels and

Figure 2 : Total Bonds Issued by the Home Mortgage Bank



# SECONDARY MARKETS

**Figure 3 : Net Income of the Home Mortgage Bank, 1987-91**



levels of economic activity, vary significantly, and may bear little relevance to current market conditions.

Although these statistics are of limited value in assessing risk in a new pool of mortgages, they can be used as a standard of

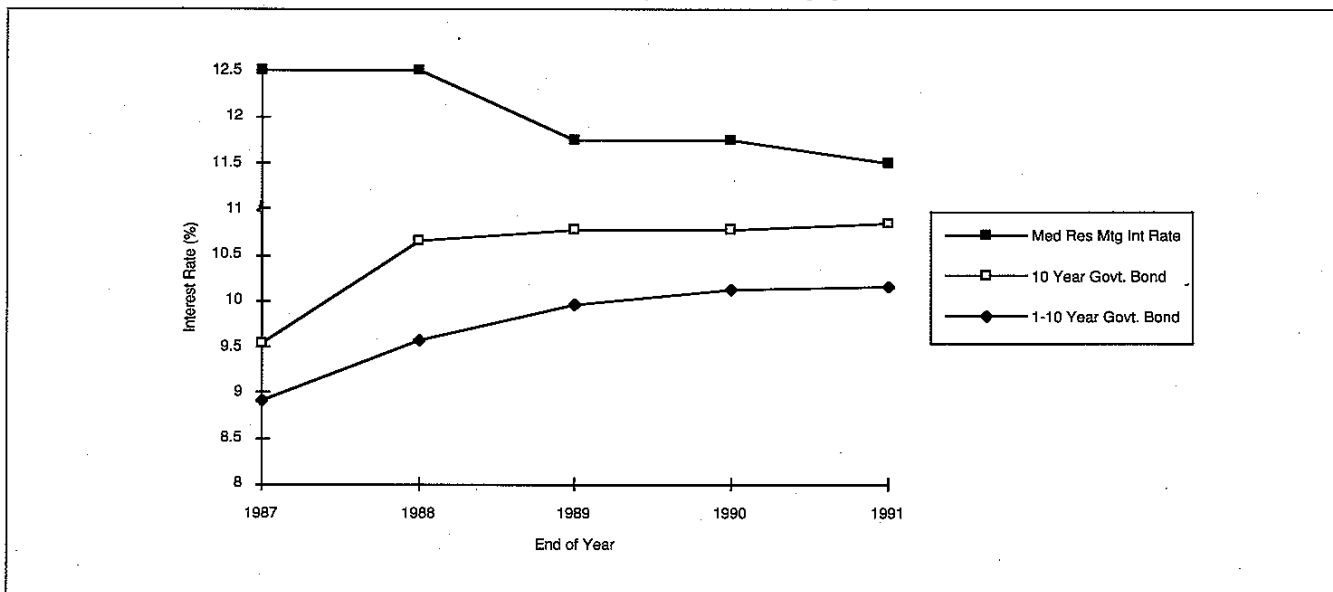
comparison for established pools. The prepayment pattern of a given pool can be compared to the norm established by government statistics to determine what is referred to as "speed ratio". For example, if the loans in a pool prepay twice as fast as the norm, the pool is referred to as having a

200% speed ratio, which then can be employed in developing a future yield estimate for the pool.

However, there is no question that in order to develop an accurate forecast of the yield potential of a mortgage-backed security based on a heterogeneous pool of existing mortgages, certain assumptions must be made, and the weakness of any observations underscore the overriding fact that the single most important quality that a pool of mortgages underlying a mortgage-backed security may have is a high degree of certainty as to duration. In addition, homogeneity of loan terms such as interest rates, compounding periods, and payments methods, facilitate the investment evaluation process.

Because of our limited experience with mortgage prepayments, we have shifted to floating rate bonds in Trinidad and Tobago. These floating rate bonds carry with them the potential for early redemption.

**Figure 4 : Interest Rate Spread Between Government Borrowing Rate and Mortgage Interest Rate**



Source : Central Bank of Trinidad and Tobago Annual Economic Survey

# SECONDARY MARKETS

One of the major contributions of the secondary market has been in the standardisation of mortgage documentation, appraisal and credit forms. The matter of legal, appraisal and surveying fees is also an area where we expect to gain some measure of relief through the standardisation of the various instruments.

The two major players in raising funds by bonds are the Government of Trinidad and Tobago and The Home Mortgage Bank. It is imperative that both the quantum and timing of bond issues are determined in an organised fashion.

The Bank acquires funds to purchase mortgage loans from investors who may not ordinarily invest in mortgage loans. Many investors are wary of individual mortgages and the difficulties in administration. Thus the total funds available for mortgage finance are substantially increased.

In addition, interest rates in Trinidad and Tobago have been relatively rigid with a substantial spread between the market rate for new loans of 11 - 12% and the interest rate on many existing portfolios of 13 - 14%. The reason for the continuing discrepancy has to do with the six months penalty on the prepayment on mortgages.

This has been another important area for the Home Mortgage Bank. As a secondary mortgage institution, we are intent on changing the portfolio orientation of lenders to increase their awareness of fee possibilities as well as their sensitivity to interest rate risk exposure. Our new mortgage deed provides for no mortgage prepayment penalty interest.

One of the other considerations that should be mentioned in respect to our interest-free bonds is the fact that no government insurance programme exists in Trinidad and

Tobago. Secondary operations in the US and Canada have not involved government guaranteed paper. However, the instruments, i.e. mortgages, are generally covered by NHA, FHA or VA insurance. As a result, the security is deemed to be government sponsored paper and the instrument trades, depending on term, at rates close to government long-term yields, at least in Canada.

Secondary market activity in Canada and the US has also been used to promote national housing policy from the support of subsidised mortgage interest rates to the provision of an outlet for portfolio restructuring. This bears importance to the Caribbean, because of limitations in respect to governmental expenditure.

The default experience of government loans is disproportionately higher than mortgage loans from private mortgage lenders, and a programme of national mortgage indemnification insurance is warranted in Trinidad and Tobago. Such a mortgage indemnification programme would provide private lenders with the necessary security to make mortgage loans to lower income families. In addition, specific subsidy programmes could be tied to the private mortgage loans where such loans are made within the public safety net.

There should be no question that both the performance factor and administration of mortgage loans in the private sector is far superior to that in the public sector. From the standpoint of such an approach, it is conceivable that the Home Mortgage Bank would be able subsequently to discount and purchase such loans, thereby providing liquidity over a greater sector of the housing market.

Secondary mortgage market operations

provide two essential elements: lower interest loans from home-buyers, and low risk mortgage-backed securities for investors.

Home Mortgage Bank tax-free bonds allow us to borrow funds at lower rates than commercial banks. That cost advantage allows us to accent lower yields on mortgage loans purchased and thus to create a resale market for lower interest mortgages that helps cut interest rates on all mortgages.

Equally important to our mortgage function are the securities issued by the Home Mortgage Bank. They are easy to trade because of the underlying guarantees of our primary lenders and the standards that they and each mortgage loan must meet.

The knowledge that they deal with fairly liquid instruments has promoted many commercial banks to become more consistent in their mortgage lending practices. Further, with an increasing emphasis on "relationship banking", both commercial banks and life insurance companies have generally used the mortgage loan as a vehicle to sell other products.

The net result is that, while there will be smaller margins for the primary lenders on the mortgage side, the potential for increased opportunity in other banking and insurance services should be sufficient to attract them to the secondary market. ■