The Current Housing Finance Situation in Thailand

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1. Financial System and Residential Mortgages in Thailand

The financial institutional structure of Thailand can be divided into two categories: (1) banking and (2) non-banking. Banking institutions include:

1. The Bank of Thailand (BOT) as the central bank,
1. 31 commercial banks of which
    - 13 are locally incorporated[1]
    - 18 are branches of foreign banks, and
3. 5 specialized banks (i.e. the government Housing Bank (GHB), Government Saving Bank (GSB), Bank for Agriculture and Agricultural Cooperatives (BAAC), Export-Import Bank of Thailand (EXIM) and SME Development Bank of Thailand (SME)).

Non-banking financial institutions comprise:

1. Finance and securities companies,
1. Mutual fund management companies,
1. Industrial Finance Corporation of Thailand,
1. Small Industry Credit Guarantee Corporation,
1. Social Security Fund,
1. Credit foncier companies,
1. Life insurance companies,
1. Agriculture cooperatives and saving cooperatives.

In response to the Asian financial crisis in 1997, several new organizations have been set up as part of an overall financial sector restructuring effort. Such new institutions include the Financial Sector Restructuring Authority (FRA), the Radasin (RAB), the Thai Asset Management Corporation (TAMC) and Property Loan Management Organization (PLMO).

In 2003, Thai government established the Islamic Bank of Thailand. In addition, the BOT approved 10 new commercial banks, some of which are specific purpose banks specializing in residential finance. An example of this is the new bank from the 'Land and House Group of Companies' (which is the largest developer in Thailand), to provide residential mortgages for their customers. Overall, the Thai financial system is dominated by commercial banks, which have mobilized the greatest proportion of household savings, and are the largest residential mortgage providers.

However, the major financial institutions which currently offer credit for residential mortgages, are comprised of all commercial banks, two specialized banks (which include the GHB and GSB), finance companies, credit foncier companies and life insurance companies, (which are non-banking institutions). These financial institutions are regulated by the Bank of Thailand, except for the two specific-purpose institutions such as GHB, and GSB, which are under direct supervision of the Ministry of Finance. The operations of these financial institutions can be summarized as follows: (see Table 1 and 2)

[1] Locally incorporate commercial banks consist of private banks majority owned by Thais, foreigners and state-owned banks

TABLE 1: FINANCIAL INSTITUTIONS IN THAILAND IN 2004

No	Financial Institution	Regulator
1	The Bank of Thailand	Ministry of Finance
2	Commercial Banks (included the Islamic Bank of Thailand)	Bank of Thailand
3	Foreign Bank branches	
4	Bangkok International Banking Facilities (BIBFs)	
5	Provincial International Banking Facilities (PIBFs)	
6	Finance Companies	Bank of Thailand
7	Finance & Securities Companies	
8	Credit Foncier Companies	
9	The Government Savings Bank	Ministry of Finance/Bank of Thailand
10	The Bank for Agriculture and Agricultural Cooperatives (BAAC)	
11	The Government Housing Bank	
12	The Export–Import Bank of Thailand (EXIM Bank)	
13	The Industrial Finance Corporations of Thailand (IFCT)	
14	The SME Development Bank of Thailand (SME Bank)(previously was The Small Industry Finance Corporation (SIFC))	Ministry of Finance/Bank of Thailand/ Ministry of Industry
15	The Small Industry Credit Guarantee Corporation (SICGC)	Ministry of Finance/Ministry of Industry
16	Securities Companies	Securities and Exchange Commission
17	Mutual Fund Management Companies	
18	Life Insurance Companies	Ministry of Commerce
19	Agricultural Cooperatives	The Department of Cooperatives Promotion and the Department of Cooperative Auditing, Ministry of Agriculture and Cooperatives
20	Savings Cooperatives	
21	Provident Fund	Securities and Exchange Commission
22	Social Security Fund	Ministry of Labour and Social Welfare

1.1 Commercial Banks

Commercial banks are the largest group in mobilizing funds in Thailand. As of March 2004, total assets of commercial banks in Thailand stood at USD[2] 176,690 (THB 7,359,107 million), while total deposits and total credits amounted to USD 134,810 million (THB 5,614,909 million) and USD 115,040 million (THB 4,791,377 million) respectively.

[2] 1 USD = 41.65 THB

For residential mortgage loans, commercial banks also take the major market share. As of June 2004, the commercial banks had a total share of 50.55%. At the same time, residential mortgage loans represent less than 10% of their total outstanding loans.

Table 2 : Key Features of Financial Institutions in Thailand which offer the Residential Mortgage (as of March 2004)

(unit : million USD)

Financial Institutions	Operation began in	Total Assets	Total Deposits	Total Credits	Residential Mortgage Loan	Residential Mortgage Loan to Total Credits(%)
Commercial banks	1888	176,690	134,810	115,040	11,000	9.56
Government Housing Bank (GHB)	1953	9,930	5,800	8,620	8,225	95.44
Government Saving Bank (GSB)	1949	15,600	13,305	7,121	2,276	31.96
Finance companies	1969	8,825	5,840	5,744	147	2.57
Credit Foncier companies	1969	53	37	30	5	16.67
Life insurance companies *	1929	n.a.	8,580	1,025	-	-

Source: Bank of Thailand

1.2 Specialized Banks

1.2.1 The Government Housing Bank (GHB)

The Government Housing Bank (GHB) was established under the Government Housing Bank Act of 1953 as a wholly owned, specialized financial institution of the Ministry of Finance with an initial capital of USD 5 million (THB 20 million). The Government Housing Bank (GHB) operates only as a specialized housing finance institution. It is a state enterprise competing in the financial sector as one of the banks in the system. All financial institutions compete against one another in the free financial market both in lending and funding. The GHB operates completely on a commercial basis in the financial sector without the need for government-directed funding or subsidy. The GHB has successfully mobilized inflows of substantial funds, allowing it to continually expand its mortgage lending throughout the country. In 1990, the GHB had only 10 branches, consisting of six branches in Bangkok and four branches in regional cities. The number of GHB's branches has increased rapidly during the last five years, and it has been able to provide mortgage-lending services throughout the country since 1994. As of March 2004, the GHB had a total of 69 main branches, of which 29 are in the Bangkok Metropolitan Region and 40 main branches in regional areas. Moreover, there are 40 sub-branches in regional cities as well as 10 financial counter services. Recently, its outstanding residential mortgage loans in March 2004 were USD 8,225 million (THB 342,548 million).

1.2.2 The Government Saving Bank (GSB)

The GSB was established in 1913 with the main objective of mobilizing small savings. The bank is owned and operated by the government. It has an extensive network of branches and mobile units both on land and along waterways accepting deposits all over the country. Funds are mobilized from the public in the form of time, call, current and endowment deposits, as well as GSB lottery. Currently, in 2004, the GSB had 586 branches servicing nationwide. Regarding the economic stimulation policy of the government in 2001, the GSB was assigned to provide residential mortgage loans to the people. Recently, its outstanding residential mortgage loans in March 2004 were USD 2,276 million (THB 94,803 million).

1.3 Finance Companies and Credit Foncier Companies

Finance and credit foncier companies have been authorized by the Acts on the Undertaking of Finance, Securities Business and Credit Foncier Business of 1979. The nature of each type of institution can be explain as follows:

1.3.1 Finance companies

Finance companies are typically organized to handle some specialized financing problems that are not adequately being handled through banks and other institutions. This business is involved in procuring funds and dispensing such funds in operating any business in the following categories:

1) finance for commerce which include for short-term loans;
2) finance for development which means finance for medium and long-term periods to industrial, agricultural and commercial undertakings;
3) finance for deposition and consumption which includes finance for durable goods on hire-purchase; and
4) finance for housing.

The sources of funds for finance companies are not very different from those of commercial banks except that they cannot accept deposits. Instead, they issue promissory notes whose face value must be at least USD 250 (THB 10,000). The promissory notes' due date ranges from at-call on one month, three months, six months or one year. Borrowing from the public through promissory notes accounts for approximately 70 per cent of the total borrowing and 60 percent of total funds of finance companies. For outstanding size of residential loans in March 2004, these were USD 147 million (THB 6,139 million).

1.3.2 Credit foncier companies

Credit foncier companies finance the purchase of immovable property (land and houses). They do so through any of the following methods:

1) lending money on the security of mortgage on immovable properties;
2) buying immovable properties under contract of sale with a right of redemption;
3) other types of business concerning immovable properties as specified in Ministerial Regulations.

The intention seems to have been that credit foncier companies would provide finance for any activity involving land use and that their loans in all cases be secured by first mortgage on the land. The major source of funds of credit foncier companies is promissory notes. The main credit purpose is personal consumption, where housing finance is the main component representing almost one-half of outstanding loans.

Regarding the outstanding size of its residential mortgage component, this was only USD 5 million (THB 222 million).

1.4 Life Insurance Companies

An insurance company has to meet the claims on its policies. An insurance company's ability to attract funds and its principle operating obligations is determined by the nature of its commitment to its policyholders. It has to select loans and investments that give it the pattern of cash flow needed to meet expected claims and give it enough liquidity to handle unexpected claims. As such, insurance companies are not really intermediaries in borrowing and lending. The funds they receive are payments for protection against risk and, with the exception of life insurance premiums, they are not part of worth or savings of the policyholders. The insurance company places the funds it receives into the primary markets only as a way of handling the reserves that it must keep to cover its policy commitments. According to the 1989 amendment to the 1967 Life Insurance Act, insurance companies are allowed to invest their funds in the following activities:

1) rediscounting tax coupons of the Ministry of Finance;
2) purchase of shares in reinsurance business;
3) rediscounting bills of exchange or promissory notes issued, drawn, availed or guaranteed by securities companies;
4) purchase of investment units of unit trusts in the process of listing in the Stock Exchange of Thailand (SET).

The amendments also increased the flexibility of the insurance companies with regards to lending. This extended the loan period from 15 to 20 years where land and residential buildings are used as collateral and raised the maximum loan amount from 15 per cent to 30 per cent of the company's asset value. However, they have only a small share in the market.

1.5 Housing finance as an integral part of the overall financial system

Since the banks in Thailand presently operate nationwide, network or points of sale expansion is an important approach used by banks to reach their customers. The greater the dispersion of branches (and also other points of sale), the more business is captured. Therefore, branch expansion has become a major tool to compete for market share.

An important prerequisite for a well-functioning housing finance system is the ability to allocate sufficient resources for housing project development as well as for residential mortgage financing. In Thailand, the allocation process is through market forces, i.e. mortgage interest rates reflect market rates. Since housing finance in Thailand is completely integrated into the overall financial system, its performance is closely linked to the fluctuating cycle of the overall economic and financial sector.

2. Magnitude of Residential Mortgage Finance

2.1 Residential Mortgage Loans to GDP

Residential mortgage loans in the Thai financial system have increased rapidly during the past two decades. The total outstanding residential mortgage loans of all financial institutions expanded dramatically at a compounded annual rate of 34% from 1985-1990 and continued to grow at an average of 33% per year during 1990-1995. The growth rate declined continuously after the crisis year of 1997 until 2001. It stood at about USD 38,068 million (THB 914 billion) at the end of 2003. This accounted for about 15.4% of the value of the gross domestic product (GDP) in 2003, compared to 6.3% in 1990. (see Table 3)

2.2 Residential Mortgage Loans to Total Credit

Residential mortgage lending expanded rapidly during the last two decades. Previously, in 1981, the total outstanding residential mortgage loans were almost insignificant, accounting for only 3% of the total credit outstanding, expanding only marginally to 4% in 1985. However, during the housing boom of 1986-1990, residential mortgage loans expanded dramatically; this ratio increased to 7.0% in 1990 and 16.0% in 2000. In 2003, total outstanding mortgage loans stood at about USD 38,068 million (THB 914 billion) or about 16.5% of the total credit outstanding. (see Table 3)

Table 3: Residential Mortgage Loans/All Types of Loans and The Thai Economy

Items	1990	1995	2000	2002	2003
Residential Mortgage Outstanding Loans (RL)(million USD)	3,313	13,780	16,540	18,340	38,068
GDP (million USD)	47,515	102,040	103,457	110,996	147,539
All Types of Loans (AL) (million USD)	52,437	100,500	118,055	130,444	142,593
RL : AL (%)	7.0	13.5	16.0	16.5	14.9
RL : GDP (%)	6.3	13.7	14.0	14.1	15.4

3. Market Share of Residential Mortgage Loans

3.1 Outstanding Residential Mortgage Loans

Residential mortgage lending by all financial institutions in Thailand expanded dramatically during the 10-year housing boom period of 1987-1997. In 1987, total outstanding residential mortgage loans were only USD 1,216 million (THB 50,657 million). It grew continuously and reached its peak at USD 19,052 million (THB 793,521 million) at the year ended 1997, growing at a 32% annual compound rate. Outstanding loans declined somewhat in 1998 and further decreased to USD 16,505 million (THB 687,458 million) in the year 2001, due to high rate of prepayment and closed accounts, weak demand caused by wide spreads between borrowing and deposit interest rates, and an increased number of foreclosed properties. However, after the Thai government launched several stimulus programs for the real estate market, particularly through the Government Housing Bank, outstanding residential mortgage loans rose to USD 18,335 million (THB 763,665 million) at year-end 2002, a jump of 11.1% from 2001. As of the end of 2003, the outstanding residential mortgage loans in Thailand reached USD 21,332 million (THB 888,472 million). (see Figure 1)

EINBETTENThe GHB has been a leading housing finance institution in Thailand in terms of market share. Its market share of the total residential mortgage loans outstanding has expanded rapidly from only 16.7% in 1989 to 34% in 1997 and reached its peak in the year 2000 with 39.3%, the highest of any single financial institution. Presently, GHB holds about 36.9% share of the market. (see Figure 2)

3.2 New Residential Mortgage Loan

Annual residential mortgage origination of all financial institutions in Thailand expanded rapidly during the boom period. In 1988, it was only USD 963 million (THB 40,110 million), but it increased at more than USD 4,800 million (THB 200,000 million) per year during 1994-1997. In 1998, after the crisis, it dropped significantly to about USD 2,491 million (THB 103,733 million), and fell further to its bottom in 1999 to about USD 1,544 million (THB 64,301 million). It rebounded to around USD 2,400 million (THB 100,000 million) per year during 2000-2001. In 2002, new residential loans jumped to USD 3,961 million (THB 164,981 million), attributable largely to special programs, launched by the government through the Government Housing Bank, aiming to boost the housing market, and to active participation in the market from commercial banks and the Government Savings Bank. As of the end of 2003, the estimated value of new residential mortgage loans totaled a high figure of about USD 6,963 million (THB 290,000 million). (see Figure 3)

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4. Significant Role of the Government Housing Bank

As of the year ending December 31, 2003, total equity was USD 470 million (THB 19,575 million) and total assets were USD 9,051 million (THB 377,003 million). The GHB is the leading housing finance institution and has played a central role in the rapid development of private sector housing in Thailand. Its market share of the total outstanding residential mortgage loans has expanded rapidly from 18.8% in 1990 to 23.5% in 1995 and reached its peak of 39.3% in 2000, and the highest of any single financial institutions.

It can be noted that the market share of new residential mortgages of the GHB in the crisis year of 1997 reached a record-high of 50.7% compared to 31.9% in 1996. In 2002, GHB's market share rose sharply from 32.6% in 2001 to 37.5%. This can be attributed to innovative lending programs launched by the bank. However, due to fierce competition among commercial banks, GHB's market share of new residential mortgage loans has been USD 1,963 million (THB 81,742 million) that pushed down to around 27.7% in 2003. (see Figure 4 and 5)

EINBETTENAfter the crisis in 1997, the overall financial system faced tight liquidity problems and increasing cost of funds, forcing most of the financial institutions to stop lending, which included residential mortgage lending. However, the GHB continued to provide residential mortgage loans with the lowest lending rates in the market. In order to make borrowing more accessible and housing more affordable to a large number of lower income groups the GHB offered lower interest rates for smaller-amount loans, which are cross-subsidized from larger loans. In this way, the GHB has played an essential role in promoting housing demand to multi-levels of people around the country.

EINBETTEN5. The Current Practices of Mortgage Lending in Thailand

The mortgage lending operations vary according to overall economic situation, financial market, housing market, competitive banking environment as well as each institution's own lending policy. The current practice and operations (in 2002-2004) are as follows:

5.1 Limits of Loan Amounts

Most residential mortgage lenders do not set clear limits on loan amounts. In fact, it depends on borrowers' demands and their financial abilities as well as the lending policy and underwriting criteria of each institution. Generally, most commercial banks and finance companies tend to concentrate their lending to the medium- and high-income groups of borrowers whereas the Government Housing Bank and the Government

Savings Bank offer loans to all income groups, targeting especially the medium- and lower-income groups. The average size of new loans of GHB in the second quarter of 2004 was around USD 12,340 (THB 514,000). However, the amounts are considered by two major factors, including loan-to-value ratio (LTV) and total household incomes. These can be explained as follows:

5.1.1 Loan-to-value ratio

The maximum loan-to-value ratio (LTV) depends on the type of property, the housing market situation and the competitive environment of the residential mortgage market. The typical ratio is around 80% of appraised value or selling price of the housing unit, whichever is lower. However, the LTV of condominium units is usually at 75%, and 70% for a residential land plot.

In certain cases (as for the Government Housing Bank), the bank will lend up to 90-100% of the appraised value of land and house if the employer and employee agree to monthly deductions from the borrower's salary to pay the loan installments. In recent years, due to the high liquidity in the financial system and fierce competition in the mortgage market, most of the banks offer loans more than 80% LTVR to ordinary borrowers.

5.1.2 Household income

The approved loan amount is normally limited, not only by the collateral value, and the household income of borrowers. In the case of the GHB, the maximum of approved loans varies between 15-35 times of monthly household income of borrowers depending upon the creditworthiness of the borrowers. The GHB as well as other banks have adopted a scoring system to analyze the creditworthiness of borrowers, such as employment, number of co-borrowers, current debts, savings, assets, etc.

5.2 Fixed or Floating Mortgage Rate

Financial institutions in Thailand traditionally offered only floating interest rate system for residential mortgage loans. However, most banks, including the GHB, currently offer both fixed and floating interest rate (adjustable/renewable/ variable rate) loans. The fixed-rate is normally offered for a short period of 1-5 years. After the end of the fixed rate, it will switch to the floating rate. However, it is notable that most Thai borrowers currently prefer fixed-rates of about 2-3 years, which are now considerably lower than the floating rates in the market (about 2.75-3.25% of 2-year fixed rate compared to 5.75-6.25% of floating rate). Rate changes are normally publicized in various media, such as in banks' web sites, brochures or in property magazines.

Residential mortgage loan rates offered to borrowers vary from institution to institution, depending upon various conditions, such as liquidity in the financial market, different cost of funds of the lending institution, loan size, risk exposure, or lending policy of each institution. It can be noted that the interest rates charged by GHB has been the lowest in the market for more than a decade. However, the bank is now challenged by fierce competition from not only commercial banks, but also recently the Government Savings Bank. (see Figure 6)

5.3 Loan Repayment Term

The typical repayment term of most financial institutions was up to 20 years. From 1998, the Government has encouraged the GHB as well as other banks to extend the repayment term up to 30 years in order to ease the borrower's financial burden and to increase affordability for homebuyers.

The period of loans plus borrowers' age typically cannot exceed 65 years. After the crisis, GHB, as well as some other banks, have extended the period of loans plus borrowers' age not to exceed 70 years. However, most of the Thai borrowers prefer to borrow for a term of about 20 years.

5.4 Monthly Installment

Loans are normally repaid through the constant amortization method. The fixed monthly installment payments consist of both interest and principal, and the portion attributable to principal gradually increases over the life of loan, resulting in a declining principal balance and eventual payment in full.

Some banks, such as the Government Housing Bank, calculate the monthly installment payment for floating rate loans at 1-2% higher than the actual interest rate charged. This is done particularly under the low interest rate environment so that the installment amounts do not have to change in the event of small interest rate increases. The bank thus reduces considerable expense, and borrowers are spared possible confusion. This practice also helps prevent "the payment shock problem", in which the monthly payment rises sharply when interest rate increases after early years of the mortgage contract. However, if the floating mortgage rate does not rise (or, instead, declines) afterward, the over–paid amount of monthly payments will cause the loan to be fully paid off earlier than the specified date (the original term of the loan contract).

Normally, the monthly installment is limited at the ratio not exceeding 33% of household income. This ratio can be adjusted higher for higher income groups of borrowers if justified by credit analyses.

5.5 Method of Installment Payment

Borrowers can repay the monthly installment directly at a counter of the bank's branches in cash or by check. For some mortgage lenders that do not have many branches such as the Government Housing Bank, finance companies or life insurance companies,, borrowers can pay the installment through any branch of the commercial banks which have agreement contracts with them. Furthermore, many banks, including the GHB, have been offering borrowers more channels for loan installment payment, some of which are post offices and private counter service providers.

5.6 Expenses in the Borrowing Process

The borrower's mortgage loan expenses consist mainly of the interest rates charged, which vary from one institution to another. But, there are also other costs that reflect the loan pricing and lending policy of each institution. These costs include:

5.6.1 Property valuation fee

All property pledged as collateral for a loan must be appraised by either the bank's valuation staff (internal appraiser) or an outside professional appraiser (from an independent appraisal firm hired by the bank). Mortgage lenders normally charge borrowers a valuation fee, which varies from institution to institution. The Government Housing Bank, for example, charges USD 40 (THB 1,700) for loans less than USD 12,000 (THB 500,000) and USD 50 (THB 2,100) for loans over USD 12,000 (THB 500,000). Some banks such as the Thai Farmer Banks Bank and Bangkok Bank charge USD 51 and 60 (THB 2,140 and 2,500) respectively for all loan amounts.

5.6.2 Loan origination fee

Most mortgage lenders in Thailand charge a loan origination fee (sometimes called front–end fee, application fee, loan processing fee, or underwriting fee) to borrowers to cover the cost of handling the loan application, documentation, and credit investigation & analysis. The fee also varies from institution to institution. It may be charged in fixed amounts, e.g. USD 12, 24 and 60 (THB 500, 1,000, or 2,500), or as a percentage of the loan amount. Some government banks, such as Krung Thai Bank and the Government Housing Bank, waive the charge of loan origination fee.

5.6.3 Mortgage registration fee

In order to secure the loans, all mortgage lenders require registration of the first mortgage. Borrowers must pay the Land Department (The Land Registration Office) a mortgage registration fee of 1% of the loan amount, not exceeding the maximum of USD 50 (THB 200,000). After the economic crisis in 1997, the government reduced the mortgage registration fee to only 0.01% in order to promote homeownership and stimulate the real estate industry. However, this policy has been stopped since the end of 2003.

5.6.4 Insurance of the collateral

All mortgage lenders require fire insurance coverage for all mortgaged property.

5.6.5 Mortgage life Insurance

Most mortgage lenders offer mortgage life insurance to their borrowers. Under the insurance protection, the insuring company guarantees full repayment of the remaining balance of mortgage loan (i.e. pay off the loan) to the bank (the mortgagee) in the event of death or disability of the borrower (the mortgagor) before fully repaying the loan. This insurance helps protect borrowers, or their family, from losing the property because of their inability to continue the loan payments, and protect the lending bank as the mortgagee against default risk.

In the GHB case, mortgage life insurance has been offered (sold) by the Government Housing Bank (loan officers or bank staff) for more than 10 years as an additional service to mortgage borrowers. The life insurance premium is to be paid by the borrowers as a lump sum amount through the bank, which will then pass it on to the life insurance companies that have made the mortgage life insurance agreement with the bank.

In terms of payment method, borrowers have the choice of paying the insurance premium in one-time-cash or by adding it to the loan amount to be repaid monthly as part of the monthly installment payment for the maturity of the loan (15-30 years). The latter method will help enable the borrowers to afford the repayment of the insurance premium.

5.6.6 Late charge

Most mortgage lenders apply a penalty to late payment on a mortgage beyond a grace period of about 2 months. Late charges are normally calculated as percentage points (such as 2 percentage point in the case of GHB) added to the mortgage rate. If the borrowers remain delinquent for 3-5 months, the interest charge may be increased to the maximum chargeable rate (13.5%, in the case of GHB).

5.6.7 Prepayment penalty

Most mortgage lenders, including the Government Housing Bank, charge a prepayment penalty for the privilege of paying off the loan prior to its maturity. For early loan redemption within the first three years, borrowers are normally subject to a penalty of about 2% of the original loan amount (or the loan balance for some banks). The intent is to compensate the lender for loss of income in future years as well as to discourage borrowing for speculative purpose and refinancing (re-mortgaging) to other financial institutions.

6. GHB's New Initiatives in Affordable Housing Finance

Regarding the role of Government Housing Bank in promoting affordable housing, it has developed several initiatives in order to offer homeownership opportunity to the low-income people. Moreover, since the economic slumped in 1997, the GHB has been also assigned to boost housing demand through various affordable housing finance schemes and programs. These can be outlined as follows:

6.1 Rollover Mortgage Loan Program

Before 1999, the standard programs of residential mortgage in Thailand offered either a floating interest rate for entire payment term of the mortgage, or a fixed interest rate, which was slightly different from the floating rate, for the first year, or few years, with a floating rate afterward. In 1999, GHB introduced a housing finance program with new interest rate structures. The loan relied mainly on bond finance instead of short-term deposits, so that it helped to prevent a mismatch in maturity between long-term mortgages and short-term deposits. The rollover mortgage system was adopted, under which the borrowers can enter a mortgage for up to 30 years. The borrowers can select a revolving period of time for three or five years, during which the mortgage interest rate is fixed at 250 basis points over the cost of the GHB bond secured by the Ministry of Finance. On the rollover date, the borrowers can select another revolving period, again from either three or five years of fixed rate, or else they can switch to the ordinary floating rate. The program also applied the 90-100% LTV offer to the borrowers. From the start of this program in 1999 to the year ending 2001, GHB was able to extend rollover mortgages to 48,414 borrowers worth USD 612 million (THB 25,486 million).

6.2 Affordable Residential Mortgages for Thai Government Officials Program

In 2001, GHB conducted a Housing Demand Survey indicating that over 800,000, or around half, of Thai government officials did not own their residences. Albeit in the low to moderate range, the government officials were considered to have stable and secure incomes, making them potentially desirable borrowers in terms of long-term repayment capability. However, under traditional criteria, they could rarely afford the down payment nor monthly installments. To overcome these barriers, GHB, in co-operation with the Government Pension Fund (GPF) and several public and private agencies, sought to elaborate and introduce an innovative homeownership program to facilitate a large number of these low-yet-stable-income government officials in all areas of the Kingdom to have more accessible and affordable residential mortgages. The dual strategy was to assist this lower income group while, through the collective demand, helping to stimulate recovery in the housing sector that had been a major source of employment in all regions of the country.

To accomplish this, the GHB eased its lending conditions on residential mortgages and adopted a graduated repayment structure to increase eligibility while, with GPF's co-operation, managing risk through at-source salary deductions from the participants. Under this program, loan amounts could be up to 100% of appraised value (zero-down-payment) with borrowing allowed up to 65 times gross monthly income (compared with 30-35 times as typically applied). Monthly installment criterion was adjusted not to exceed 50% of gross monthly salary (compared with the usual limit of 30% of net monthly salary). Monthly installments were designed to be low for initial years and subsequently graduated when borrowers' salaries were expected to grow as a result of promotions and general increments. Mortgages were stretched to the maximal 30 years, with the amortization period (years) plus the borrowers' age not exceeding 65. The interest rates were below prevailing market rates at 4.50% annual fixed rate for the first 3 years, and afterwards floated at equal to government-owned bank's 3-year fixed deposit rate plus 0.75% per annum. The inventive structure of the program helped increase affordability to government officials whose current incomes could not support conventional mortgage loans.

In addition to innovative structure and risk management, the program was supported by a widespread campaign on homeownership counseling for government officials. The National Housing Authority as well as private housing developers also helped interested officials access the housing market by offering reduced prices and participating in exhibitions to make comparisons easier and generate vigorous competition among vendors.

The program's success was phenomenal. It realized its objectives beyond that originally targeted to where the initial base amount of USD 120 million (THB 5 billion) (an estimated 10,000 loans) was increased to USD 1,056 million (THB 44 billion). Since the program's launch in late November 2001, response was so significantly more than anticipated that GHB sought additional low-cost funding and extra facilities to support the high, and continuing demand. After the loan acquisition period for the program ended in October 2002, demand remained strong resulting in a supplementary program (May 2003 to June 2004) offering the same loan terms, but with lower interest rates in accordance with the market. By the end of 2003, about 80,000 GPF members across the country applied with approximately 70,000 approvals worth USD 1,056 million (THB 44 billion). Approximately 68,000 low- to moderate-income government officials have purchased their own homes (both new and second-hand) where previously they had been renting, sharing accommodation or living in government subsidized housing.

The time frame and results of the program launches saw the majority of applications (82%) being from provincial areas outside of Bangkok thus helping stimulate upcountry economies.

Moreover, the resulting surge in homeownership helped boost public sentiment, whereby the excess housing supply has now been absorbed, thus helping revive the overall housing market leading to new construction and hence employment. The program is believed to have helped home sales increase for all income groups and also trigger more vigorous competition among commercial banks for residential mortgages.

6.3 Hire–Purchase Prior to Residential Mortgage Program

In 2004, GHB introduced the Hire–Purchase Prior to Home Mortgage Program. The program aims to assist low-income groups and those with poor evidence of creditworthiness, such as those who are self-employed or have irregular income, who normally cannot afford down payments, to be able to have homeownership through accessibility to mortgage credit. Under the program, the GHB will allow homebuyers who have limited down payment money to be firstly financed through hire–purchase for a certain period of about 3-5 years. If they can prove their creditworthiness, through the ability to pay the hire–purchase monthly installments regularly, they will then be eligible to own the house and change their status from a hire-purchaser to a mortgagor.

6.4 Housing Finance to Support "Baan Uur Ah-torn", A Massive Housing Provision Project

In 2003, the government introduced "*Baan Uur Ah-torn* Project" (home with care), a government's low cost housing project, in order to provide affordable homeownership for low-income groups. The project aims to produce a total of 600,000 subsidized low-cost housing units over 5 years during 2003–2007. The National Housing Authority (NHA), under supervision of the Ministry of Social Development and Human Security, has been entrusted to be the main responsible agency to implement this initiative. The GHB, among other government-owned financial institutions, has agreed to support this low-cost housing project by financing construction to the NHA as well as providing affordable residential mortgages to eligible buyers.

The maturity of the mortgage loans for this project will be up to 30 years with the loan-to-value ratio up to 100% (no down payment). The interest rates will be fixed for 5 years, at 4% for years 1-3 and 5% for years 4-5, and floating afterward.

It should be noted, that while this project targeted low to moderate income groups, a complementary Government project "Baan Man-Kong", directly designed to help resolve slum housing issues, is being implemented by the community Organization Development Institute (CODI).

6.5 Housing Finance to Support the Government Policy on Assets Capitalization

In 2003, the government also introduced an assets capitalization policy. One of the main drivers of this policy is the recognition that a sizeable stock of assets, particularly those held by the low-income and the poverty-stricken groups, cannot be capitalized. The value of these assets is limited to its use value only, and thus is restricted from maximization of its economic rent potential. The launch of this policy is based on two basic assumptions. Firstly, while the poor do have assets, there are currently limited operational channels for them to access capital. Secondly, creating access to capital can be a modality for unleashing the productive capacity of the poor thereby helping them to escape the poverty trap.

In response to the government's policy, the GHB in cooperation with NHA and the government's Treasury Department launched an affordable housing finance program for asset capitalization in late 2003. A pilot program called "*Baan Uur Ah-torn* on the State's Land for Government Employees" will allow government employees at Sattaheep Royal Army Base, which has a long-term land lease contract (30 years) with the Treasury Department, to use the contract as a collateral for hire–purchase financing of houses constructed by NHA. About 400 2-story detached housing units will be constructed in Chonburi province in early 2004 under this pilot program.

7. Conclusions

In Thailand, the commercial banks plays major role in Thai financial system in term of loan provision. For residential mortgage loans, commercial banks also have a large share in the market but it is only around 10% of their total outstanding loans. However, when considering the outstanding and origination of residential mortgage loans of each commercial bank, each bank has been much smaller than the Government Housing Bank. This can indicate that the GHB is the major leader in the residential mortgage market.

In fact, the GHB was established primarily to promote affordable homeownership in Thailand. Throughout the half-century of its operation, GHB has competed well and profitably in the free financial market without subsidy and earned the leading position as the largest market shareholder of residential mortgages and the lowest rate provider.

Since the economic crisis in 1997, the GHB has also become a major mechanism for the government in the efforts to revitalize the economy. GHB has strongly supported the government's policy and continually developed various measures and innovative instruments in order to stimulate housing demand and provide affordable housing finance to the market. Therefore, GHB has made an effort to develop new initiatives for giving opportunities of homeownership for people through affordable housing finance instruments.

The difficulties from the economic crisis have significantly influenced formulation of creative affordable housing finance programs that go beyond convention to make borrowing more accessible and housing more affordable to a large number of low- and moderate-income groups, yet remain profitable. These initiatives also become key instruments contributing to the economic recovery. GHB has learnt valuable lessons from this experience, and would like to share a small set of them with the international society. They can be summarized as follows:

- Operating without subsidy, a government bank can assist low-income groups and still be profitable.
- A government bank can lead the market by influencing private banks to be more competitive and provide wider services to a larger group of society.
- It can have a wider economic impact that can support growth and development through harnessing collective demand.
- It can be proactive by bringing in co-operation from other government agencies as well as from the private sector to build synergies and implement change
- Corporate responsibility also requires that lenders take proactive initiatives in educating potential borrowers on making purchase decisions and responsibilities of ownership (and not only promote lending services)

GHB hopes these lessons will lay a foundation for further discussion, future research and continued development of financial system and initiatives.