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Guidelines for the National Housing Bank's Recognition of Housing Finance Companies for Refinance

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Indo-US Housing Finance Expansion Program

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I Overview

Introduction

The National Housing Bank (NHB) was chartered in 1987 to promote, supervise and finance India's fledging housing finance companies (HFC). The provision of refinance already has become a major activity for the NHB. As of June 30, 1995, the NHB had extended almost Rs. 2,000 crore to HFCs, co-operatives and scheduled commercial banks. The refinance activity represented more than 55 percent of NHB assets as of June 30, 1995 and over 82 percent of NHB income reported during 1995. Despite the importance and growth of refinance for both the housing finance industry and the NHB, there are legitimate concerns applicable to the activity.

- A major portion of refinance has been extended to very few of the approved HFCs; especially Housing Development Finance Corporation Limited and several other institutionally-sponsored companies.

- The geographic coverage of HFCs is uneven. There are large markets in India underserved by housing finance companies; especially the East and North.

- Housing finance companies have not yet extended significant credit to all classes of prospective mortgagors demonstrating effective housing demand. HFCs have not yet offered significant funding programs for low-income and self-employed individuals, among other economically weaker sectors.

- Selected housing finance companies have yet to develop risk management systems that allow management to identify, measure, monitor and control exposure to risk. Importantly, selected HFCs have mismatched the repricing and maturity schedules of assets and liabilities; hence are potentially exposed to interest rate and liquidity problems.

As a result of substantive issues affecting the promotion of housing finance, the supervision of the safety and soundness of housing finance companies, and the asset/liability risk of the NHB, this report reviews the existing *Housing Finance Company Refinance Policy* (Policy). The Policy has been revised numerous times by the NHB since 1988. In part, the revisions reflect the inability of the NHB to obtain low-cost funding on a consistent basis. Consequently, the Policy has been modified to ration credit among competing HFCs. The report recommends additional Policy changes structured to provide the National Housing Bank transparent and prudential refinance guidelines applicable to qualifying HFCs.

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Section I of the report briefly summarizes the existing refinance Policy guidelines and provides recommendations for change. Section II supports the recommendations from a housing finance company's perspective. Section III advocates the recommendations from the National Housing Bank's position. Section IV summarizes key recommendations.

Housing Finance Companies and Refinance Guidelines

As of year-end 1995, there are approximately 350 *registered* housing finance companies operating in India. Housing finance represents **one** of the main business objectives of a registered housing finance company. About 105 housing finance companies are *confirmed*. Housing finance represents **the** main objective of a confirmed company. Many registered and confirmed housing finance companies are small. Approximately 45 confirmed housing finance companies possess net owned funds larger than Rs. 50 lakh. Very few housing finance companies have yet to be *approved* by the NHB. Approved housing finance companies may apply for refinance support. To be approved, a HFC must meet several criteria, including the following:

- **Business Strategy** -- Approved HFCs should be chartered as a public limited company formed with the main objective of carrying on the business of providing long-term finance for the construction or purchase of residential houses in India. Housing finance companies must not retain any relationship with a construction company.

- **Management** -- Approved HFCs must retain a well qualified and independent board of directors. The chairman is subject to approval by the NHB. The housing finance company is required to receive governmental approval prior to appointing or reappointing an auditor.

- **Asset Portfolio** -- Approved HFCs must commit at least 75 percent of lending toward housing. Slow loans exceeding three months are required to be less than five percent of total demand due in one year.

- **Capital** -- Approved HFCs should have minimum issued and outstanding capital of Rs. three crore. The NHB is expected to increase the minimum to Rs. five crore; hence increase the equity threshold required to qualify for approved status. The company should list its shares on one of the recognized stock exchanges in India.

- **Liquidity** -- Approved HFCs must maintain investment in liquid assets equal to at least 10 per cent of their outstanding deposits. The deposits are to be rated by one of India's credit rating agencies and qualify for an "investment grade." Deposits may range in tenor between one and seven years.

- **Operations** -- Approved HFCs are expected to operate efficiently by keeping administrative costs less than 1.5 percent of outstanding loans. Except in unusual cases, housing finance companies are precluded from charging prepayment penalties. Maximum interest rate ceilings periodically are set by the NHB on selected deposit products and loan slabs.

Approved housing finance companies are qualified to request refinance support from the NHB. There are 21 approved HFCs as of mid-1996.

Approved housing finance companies requesting refinance support are subject to a variety of tests that limit the amount of refinancing. Some of the limits are based on the financial condition and funding opportunities of the National Housing Bank, while others reflect the condition of the housing finance company or the mix of the loans being refinanced. Selected quantitative standards include the following:

- **Diversification** -- Refinancing extended to any single HFC currently is limited either to 25 percent or 15 percent of the NHB's net owned funds. The larger limit applies to institutionally-sponsored HFCs. In addition, an HFC is not supposed to lend more than 30 percent of its net owned funds to a single customer.

- **Constraints** -- The maximum refinancing of a HFC cannot exceed 50 percent of its housing loans. In addition, the maximum refinancing of a HFC cannot exceed five times its net owned funds.

- **Mix** -- Project refinancings for any single HFC cannot exceed 30 percent of annual refinancing activity. Further, upgradation refinancings cannot exceed 25 percent of annual refinancing activity.

The NHB refinances 100 percent of housing loans categorized by purpose (i.e., project, construction, and rehabilitation or upgradation), size, tenor and rate. The loans refinanced are subject to a negative lien in favor of the NHB. The NHB refinances small housing loans (i.e., less than Rs. 25,000) at lower rates than larger loans. The often-modified refinance policy and procedures have stood the test of time reasonably well for the National Housing Bank.

Only one institution has not paid interest and repaid principal on a timely basis. The Indian Housing Finance Company defaulted on a refinance repayment scheduled during 1992. The NHB is pursuing the matter with a legal case pending in the Bombay High Court. The refinance and related accrued interest comprise about four percent of outstanding refinances as of June, 1995. The resolution of the case will provide additional information regarding the separation of supervision versus credit analysis, and the enforceability of collateral claims. Despite the substantial funding support historically provided housing finance companies through the refinance scheme and the strong collection record of the NHB, the existing Policy deserves modification.

Recommendations

The following recommendations are structured to allow the National Housing Bank better fulfill its mission; promote housing finance companies, supervise housing finance companies, and provide financial support to housing finance companies. First, the National Housing Bank itself must operate as a safe and strong institution to best meet its mission. The NHB's organizational structure must provide adequate separation of responsibilities, related controls must promote efficient risk management, and financial operations and condition must be adequate to qualify for an "AAA" credit rating independent of the Reserve Bank of India. Second, the refinance scheme should promote the safe and sound operations of individual housing finance companies. As such, refinancing should allow HFCs to pursue business decisions that provide and/or promote adequate capital, good asset quality, sufficient risk management, stable earnings and adequate liquidity. The Policy should utilize existing supervisory prudential guidelines and independent deposit credit ratings to the extent practicable. Third, the refinance activity must recognize that cash is fungible. It is difficult to trace the flow of funds between a refinance and the subsequent loan activity pursued by a HFC. The proposed modifications are structured to ensure the National Housing Bank and approved housing finance companies are safe, sound and efficient intermediaries within India's burgeoning financial market.

Organizational Structure: The refinance activity should be separated from the supervision and promotion of housing finance companies. Although refinance provides the NHB with "muscle" to accomplish both supervisory and promotional objectives, the three functions deserve independence. The refinance activity should include a rigorous credit function that ensures approved housing finance companies properly originate, service and collect loans negatively pledged to the NHB. The credit department should be able to raise and answer related questions. Will the HFC pay interest and repay principal on a timely basis? How much refinance should a HFC qualify? What happens if the HFC is unable to meet contractual obligations in a timely basis? Is there adequate legal interest in collateral and related cash flow to overcome potential financial problems applicable to a HFC?

Refinance Purpose: Housing finance companies should be able to utilize refinancings to both manage asset/liability risk and to enhance earnings.

- **Welfare** -- The NHB should consider separating commercial (i.e., market rate) from welfare (i.e., a below-market rate loan) refinancing activity. The NHB can continue to ensure housing finance companies meet the goal of the industry by requiring each company to direct a minimum proportion of credit into socially desirable assets or fund economically weaker sectors. The NHB could ensure that low-cost funds acquired by the NHB are made available to those HFCs committed to originating smaller, low-cost loans in geographically depressed areas or to select mortgagors (e.g., women or self-employed) unable otherwise to easily obtain credit.

- **Commercial** -- A *commercial* refinance represents a market-rate loan. Commercial activity would be funded by market sources while welfare activity would be funded by low-cost, government-directed sources. It is imperative that the NHB obtain and retain an "AAA" agency credit rating that is independent of the Reserve Bank of India. Without a "AAA" rating, the National Housing Bank will be unable to obtain funds at a competitive advantage relative to approved housing finance companies. A stand-alone credit rating will allow the NHB to operate independently if the RBI were later to privatize the agency or terminate financial support. India's financial markets will likely differentiate credit risk with appreciable interest rate spreads only after experiencing the consequence of default and loss from a future economic recession. Indeed, if the NHB is going to remain active in commercial refinance activity and the government is committed to reducing directed funding programs, the market must differentiate a "AAA" corporate rating from a "AAA" agency rating.

- **Liquidity** -- The NHB should allow any approved HFC to obtain a liquidity refinance for extendible periods of time of at least three months. The *liquidity* refinance could be secured by a negative lien and/or physical possession of loans and/or investment securities. The NHB can provide HFCs an opportunity to overcome potential liquidity problems. The liquidity refinance is currently provided on an *ad hoc* basis. For example, the NHB has granted a line of credit to HUDCO, which allows the HFC to borrow up to Rs. 50 crore for making loans to economically weaker sectors. The process should be formalized. Until the depth, breadth and resiliency of India's capital market develops more fully, the liquidity refinance provides housing finance companies an important and an assured backup source of liquidity. The liquidity refinance should be available given short-term notice, and priced at market rates for a period of no more than three months. The NHB could stand ready to commit up to five percent of a HFCs net owned funds for three months with an advance ratio applicable to the company's deposit rating. The NHB should only consider longer or larger liquidity refinances with a 50 percent or lower ratio and require a first charge and/or physical possession against assets pledged.

- **Term** -- The NHB should allow any approved HFC to obtain a long-term, fixed-rate (*term*) refinance structured to reduce existing asset/liability maturity and repricing gaps. The term of the refinance should be allowed to exceed the weighted average maturity of loans negatively pledged by at least two years. The *term* refinance need not expose the NHB to excessive credit exposure if the refinance does not equal 100 percent of loans pledged by negative lien.

- **Workout** -- The NHB should develop formal guidelines that anticipate periodic financial problems for selected housing finance companies. A *workout* refinance should identify the alternatives that the NHB will consider when restructuring a refinance. For example, the NHB might consider offering a short-term payment moratorium, interest capitalization or term extension in exchange for a first charge on relatively more loans advanced as collateral. The workout refinance should operate with the lowest refinance ratio of any approved program; that is 50 percent. The workout refinance should require a first charge. The NHB should evaluate a workout refinance relative to a settlement or legal alternative, and select the program that maximizes the present value of collection for the NHB.

The financial strength of the NHB depends on the existence of a spread between its cost of funds and yield on key assets, including investments and refinancings. The net interest margin is also dependent on the volume of interest-earning assets and interest-bearing liabilities. The expanded set of refinance programs is designed to offer HFCs additional opportunities to manage asset/liability risk at market rates of interest, and to increase the volume of interest-earning assets of the NHB. Effective demand will be limited given the market rate pricing for all programs except the welfare refinance.

Refinance Procedures: The NHB need not impose additional rules on approved housing finance companies than already required from a supervisory perspective. The NHB must ensure that refinance guidelines are not only transparent and prudent, but appropriately priced.

- **Prudential Norms** -- Recently, the NHB required approved housing finance companies to meet certain accounting and prudential norms. First, HFCs are required to classify nonperforming assets and establish an appropriate allowance for loan loss. Second, HFCs are required to ensure capital exceeds minimum risk-based requirements. Third, HFCs are required to ensure that accrued interest on all slow-paying loans is collectable. Rather than impose additional or different standards on HFCs, the NHB should ensure that each company requesting commercial, welfare, short-term liquidity or term refinances meet existing regulatory standards. Institutions that request large or long-term liquidity assistance may well have lost the confidence of the market due to inadequate capital and poor asset quality. It is important that the NHB only extend credit to weak HFCs when secured by a first charge or physical possession of collateral with an advance ratio not to exceed 50 percent. More importantly, the credit function of the refinance area must anticipate that a cash flow problem of a housing finance company is temporary prior to approving a liquidity refinance.

- **Credit Rating and Refinance Ratios** -- The NHB has required housing finance companies to have deposits rated by one of several Indian credit rating agencies. Assuming a housing finance company meets all regulatory requirements, the NHB is advised to differentiate relative credit risk by the rating assigned by the approved agencies. Further, the NHB should differentiate credit risk of the housing finance companies by changing the refinance ratio by credit rating. The NHB might extend 90 percent of loans negatively pledged for high-grade and upper medium-grade

(AAA/AA/A) HFCs, 70 percent for lower-medium grade (BBB), and 50 percent for below-investment grade (BB/B/CCC) HFCs. The current refinance ratio is 100 percent, which is applied to all HFCs. The high refinance ratio creates agency risk, and does not encourage managers to operate prudently despite the negative lien and existence of a power of attorney on all assets in case of default. The lower refinance ratio recommended reduces the credit risk of the NHB, allows the NHB to offer term, liquidity and workout refinances, and encourages all housing finance companies to pursue financial strategies designed to achieve a high-grade credit rating.

- **Refinance Pricing** -- Refinance repricing is an important issue if the NHB is going to operate profitably and generate capital beyond funds invested by the Reserve Bank of India. The cost of any refinance should reflect the marginal cost of NHB funds, the risk of a refinance, the administrative cost of refinance activity, and some contribution to profit. If the NHB is unable to raise funds more cheaply than HFCs, commercial refinance activity will wither and the National Housing Bank's profit and capital will increase more slowly or decline. The NHB may wish to ameliorate the consequence of volatile interest rates by changing the profit spread embedded in refinance pricing. For example, the NHB could reduce the desired profit spread in a high-rate environment and increase the profit spread in a low-rate environment. The NHB, however, should price funds on an incremental or marginal basis. The NHB should resist efforts to price refinances based on the average cost of funds; too many refinances will be extended in a high rate environment at too low of an interest rate, while too few loans will be extended at a high rate in a low rate environment. Managers make funding decisions based on incremental costs, not average costs.

- **Documentation Standards** -- The NHB has an opportunity to promote housing finance in India by developing minimum documentation standards applicable to mortgage finance. The NHB may impose documentation requirements on loans refinanced. The documentation standards should include financial, legal and technical factors. From a financial perspective, a housing finance company's files must demonstrate that sources of repayment for a loan are adequate. From a legal perspective, the housing finance company's files must document that a valid loan and mortgage lien exist. The credit department associated with the refinance activity should periodically inspect those loans negatively pledged to the NHB and ensure that sources of repayment are adequate and documentation is sufficient. Among other factors, a housing finance company should assess the income of a prospective mortgagor and verify the value of the mortgaged property. The files should include the signatures of the officers verifying the information, and identification of the sources of information relied upon to make the determination of the borrower's character, capacity, capital, collateral and conditions. Housing finance companies unable or unwilling to provide appropriate documentation for loans pledged should be required to pledge more collateral (i.e., borrow at a lower refinance ratio) or be denied access to the refinance window.

Covenants Applicable to Refinance: Finally, the NHB should consider adding selected legal covenants to support a refinance. The covenants should consider several scenarios. First, how and when should the NHB respond to HFCs that become financially weaker after refinance has been extended? Second, how should the NHB respond to the merger, acquisition or liquidation of a HFC? Third, how should the NHB respond if and when fixed-rate, long-term refinances are prepaid prior to contractual maturity?

- **Credit Standing** -- To encourage and reward safety, the NHB could change the refinance ratio applicable to outstanding loans given a change in credit rating assigned deposits. As suggested previously, the ratio should vary according to the credit rating at time of refinance. However, if a similar standard were applied to outstanding refinances, the NHB would better be able to relate collateral to potential credit risk. If the credit rating of a housing finance company declined to a low-grade (BB/B/CCC), the NHB should require a negative lien be replaced by a first charge with a refinance ratio not in excess of 50 percent.

- **Corporate Structure** -- The NHB should have an opportunity to change the terms of a refinance if the corporate entity changes prior to repayment. For example, if a housing finance company is acquired by another company, the NHB should have the legal right to call the loan due immediately and fully. The NHB would already be protected by the just discussed covenant related to credit quality if a housing finance company undertakes a change in corporate structure or business strategy that is detrimental to its credit rating.

- **Prepayment** -- Although few residential housing loans currently prepay in India for reasons related to more attractive refinancing, prepayment could adversely affect the financial condition and operations of the NHB. Prepayment risk is greatest for housing finance companies active in the corporate housing market. Loans to companies relending to employees at subsidized interest rates have access to market-priced credit from a variety of sources. When interest rates subsequently decline in India from the high rates common as of 1996 (e.g., 15% to 20%), corporate mortgagors will find it advantageous to payoff high-rate loans with the proceeds of low-rate funding alternatives. If a housing finance company pays off its high-rate refinance, the NHB will suffer financial loss because new investments will be unable to generate interest income equal to prior non-callable bonds issued. The NHB should consider adding a prepayment penalty to any refinances that are prepaid when secured by corporate housing loans or project loans. The prepayment penalty should equal the difference between the par value and the market value of the refinancing. For example, if a 14 percent, 12-year, monthly amortized 100 crore advance were prepaid when the market rate on such refinances was 10 percent, the penalty would equal 20.25 crore. The 14 percent refinance would be worth 120.25 crore when market interest rates approximate 10 percent. While prepayment does not provide a current issue for the NHB, the Policy should anticipate the consequence of volatile interest rates common in market economies.

The following two sections of the report provide support for the recommended modifications to the Policy. Section II focuses on the operations of housing finance companies. Section III emphasizes the operation and condition of the National Housing Bank.

II The Housing Finance Industry and Refinance

Promotion of the Housing Finance Industry

Housing finance companies are specialized financial intermediaries. Financial institutions are important to the capital formation of any country. Among other functions, financial intermediaries: 1) provide a payment system, 2) mobilize savings, 3) provide a store of wealth, and 4) supply credit. Housing finance companies can promote home construction and ownership in India only if the industry retains the confidence of households, and operates in a safe, sound and efficient manner. The NHB's supervisory and finance functions are integrally related to its promotion objective.

- **Supervision** -- The National Housing Bank can best promote housing finance in India by ensuring that **all** approved, confirmed and registered housing finance companies operate in a prudential manner. The industry is exposed to a "contagion" effect if one of the 350 registered or 105 confirmed HFCs develop sufficient problems to precipitate a deposit run on the 21 approved companies. The NHB can partially reduce the threat of a liquidity crisis for the approved companies by providing a formal *liquidity* refinance program. More importantly, the NHB must provide additional programs that enhance the advantage of being recognized as an approved HFC. By increasing the proportion of approved HFCs, the NHB may more closely supervise the activities and ensure problems of any one company do not adversely affect others in the industry.

- **Standards** -- The National Housing Bank can promote housing finance by developing formal underwriting standards and documentation requirements applicable to a mortgage and mortgage loan. Standards enhance efficiency so important to the intermediation of funds from surplus savers to deficit borrowers. The NHB is able to enforce such standards for approved housing finance companies through the refinance window. The National Housing Bank should only accept negative liens or first charges on housing loans that are underwritten and documented with minimum requirements imposed by the agency.

- **Equity Investment** -- The National Housing Bank also can promote housing finance by investing equity funds in selected approved companies. Equity investment carries a much higher multiplier than refinance. If HFCs are required to maintain capital equal to eight percent of assets, one Rs. crore of equity supports 12.5 Rs. crore of housing loans when leveraged by a HFC. The equity investment can be directed to HFCs that promote social goals of the NHB rather than institutions merely unable to meet recently-promulgated risk-based capital standards. Because equity investments are more fully addressed by another project sponsored by the Indo-US Housing Finance Program, the program is not further expanded in this report.

- **Refinance** -- By providing a range of refinance schemes that allow HFCs to create value for owners, the NHB promotes housing finance. Individual HFCs create value by reducing risk and/or increasing return. The *term* and *liquidity* refinance programs allow HFCs to control portfolio risk; hence create value. The *commercial* refinance program allows HFCs to borrow money at market interest rates; hence create value by raising incremental funds in amounts and timing desired. The *welfare* refinance program allows HFCs to borrow money at advantageous rates of interest; hence better serve disadvantaged markets. The *workout* refinance provides troubled HFCs with a payment moratorium, reduced interest rate or longer period of repayment; hence reduce the chance of failing and contaminating the public's perception of housing finance companies.

To summarize, the NHB can best promote housing finance companies by ensuring all registered, confirmed and approved HFCs operate in a safe, sound and efficient manner. The refinance window provides the NHB with a tangible program capable of promoting approved HFCs and encouraging confirmed HFCs to qualify as an approved institution.

Supervision of Housing Finance Companies

A sound housing finance industry requires effective supervision by a responsible agency vested adequate oversight authority. Since India's housing finance companies have not yet operated in a market economy over several business cycles, it is instructive to review the empirical evidence and experience of US savings and loans and commercial banks that have failed or precipitated serious supervisory problems. Studies show that banks typically fail because of poor management. Failing institutions are unable to identify, measure or control risk; especially when the economic environment is hostile to the intermediation of funds and collection of loans. Problem institutions often share certain financial characteristics. A refinance program either can reduce the threat of failure or contribute to problems of the industry.

- **Management** -- Financial institutions that fail typically have a management team unable to cope with adverse economic, regional or financial problems. The board of directors is often not independent of management. The directors are passive and approved policies are vague. The institution directs little attention to risk management, an internal audit or internal controls. Other institutions experience a different set of managerial problems of sufficient magnitude to precipitate liquidation. Directors demand aggressive growth. Poor loans, inadequate documentation and lower capital ratios are associated with excessive assets growth. Active directors sometimes use their institution as a private "piggy bank," and request insider loans granted with favorable interest rates, excessive risk and inadequate sources of repayment. Other directors of problem institutions enter into affiliated transactions (e.g., provide a service for the company) at inflated rates detrimental to bank operations. In short, too passive or too aggressive directors can and have caused problems for company's comparable to India's HFCs. Existing refinance guidelines adopted by the NHB address the importance of the directors, the Chief Executive Officer, and independent auditors for an approved HFC.

- **Financial Factors** -- Numerous empirical studies have tried to isolate financial ratios able to predict failure prior to an institution developing such low capital that liquidation is one of the few viable options available to supervision. The studies have demonstrated limited success. Generally, key ratios that suggest later financial problems may be categorized by supervisory focus: capital, asset quality, management, earnings and liquidity. First, failing banks have a much lower capital ratio than peer institutions. However, low capital is the result of other managerial and financial problems. Second, problem banks often experience some type of liquidity crisis when financial problems are recognized by the public. The liquidity crisis is compounded by poor asset/liability management. For example, failing banks often operate with a higher loan-to-asset ratio and lower security-to-asset ratio than viable banks. Securities tend to be more easily and quickly converted to cash than loans if liquidity problems develop. In addition, failing banks often borrow more money, including loans comparable to the NHB's refinance, than institutions that do not develop liquidity problems. Aggressive directors access credit secured by loans from the apex housing finance company to fund insupportable rates of growth. Although the apex housing finance company may not suffer a loss due to security provided by collateral, the industry suffers from loss of public confidence. Banks posting large losses invariably lose the confidence of the apex housing finance organization and depositors. The losses regularly reflect excessive expenses incurred due to inappropriate business plans and unnecessary perquisites granted management, Sometimes the losses reflect excessive interest rate risk or foreign exchange exposure. Management is unable or unwilling to identify, measure, monitor and control risk. Finally, most failing banks originate more high-rate loans than competitors. These high-rate loans are more risky, require more severe asset classification, and ultimately dictate higher reserves for loan losses than low-rate loans originated by more conservative peers. The financial factors of problem banks in the US highlight the importance of the NHB routinely inspecting and implementing prudential norms applicable to accounting, asset classification and capital, among other areas.

- **Economic Environment** -- As suggested by the managerial and financial factors previously described, failing banks exhibit little inclination and ability to measure and control risk. The risk is often complicated by a hostile national and regional economy. Invariably, more banks fail in market economies experiencing a recession, high and increasing unemployment and high "real" rate of interest. Banks are more susceptible to credit problems if the host country is faced with country risk downgrading, regardless of whether due to political, economic or transfer problems. Selected banks within a country may suffer if their region of a country experiences a "boom to bust" economic contraction or loss of a key industry, such as precipitated by a poor agricultural crop or loss of tourism. India is susceptible to economic risk; the economy has expanded briskly since 1991 and the Reserve Bank of India has increased "real" interest rates in 1996 to thwart inflation damaging to financial markets. Real estate prices do decline; prices currently are among the highest in the world in Bombay.

The NHB can exert substantial control over the housing finance industry by offering refinance schemes that allow individual HFCs to create value. Value is created by reducing risk and/or increasing return.

Refinance Programs

The National Housing Bank should consider modifying existing refinance guidelines to allow housing finance companies an opportunity to reduce risk and/or enhance return. Housing finance companies will attract institutional and individual equity funds if management is able to provide shareholders a consistent return on equity in excess of cost of equity. The cost of equity represents the minimum return investors require prior to investing in stock. Equity is more risky than debt. Interest on debt is contractual; a dividend on stock is discretionary. If a company fails, equity investors will receive payment, if any, only after other creditors have been paid. Investors require a higher return on equity than debt. The refinance program can create value for HFCs. A safe, sound and efficient housing finance industry can better mobilize savings within India and extend housing credit than an apex housing finance agency operating alone.

- **Capital** -- The National Housing Bank must continue to require all housing finance companies maintain prudential capital levels. Under-capitalized HFCs should be directed to increase capital ratios in a short period of time. Under-capitalized HFCs should be placed under growth control directives to limit asset expansion until capital is judged adequate. The NHB should not provide either commercial or welfare refinances for under-capitalized HFCs. However, the NHB should consider liquidity or term refinances for under-capitalized HFCs if such advances reduce the risk of a company. The NHB should consider investing equity in socially-responsible HFCs unable to attract sufficient private capital to support growth. The NHB should require HFCs to meet prudential capital guidelines. If the NHB imposes too high capital requirements, the industry may respond by incurring additional risk. By only accepting negative liens on loans originated according to minimum underwriting and documentation standards or requiring first charges on assets pledged by weaker HFCs, the NHB also can encourage HFCs to maintain and/or improve asset quality.

- **Asset Quality** -- If an HFC is to report capital accurately, it is critical that all impaired assets be classified according to the degree of repayment problem. Further, the allowance for loan losses must be adjusted for past losses, the trend of losses and likely future losses. The NHB must require all HFCs to adopt prudential norms applicable to asset classification, income recognition and the reserve for loan losses. Further, the NHB must provide HFC management sufficient flexibility to obtain, use and price funds at an adequate margin to generate an adequate return on equity. The relationship between leverage and profitability for return on equity is illustrated in the accompanying box. If regulatory standards require too much capital (i.e., too low equity multiplier), an HFC will need to enhance return on assets by operating more efficiently or by taking on additional risk.

Return on Equity = Equity Multiplier x Return on Assets
Net Income/Equity = Assets/Equity x Net Income/Assets

- **Earnings, Loan Pricing and Portfolio Risk** -- Because existing guidelines imposed by the NHB and the taxing authority limit an HFC's non-housing loans to 25 percent of assets, management should be provided maximum flexibility to price funds obtained and used. Otherwise, management will be tempted to increase an HFC's exposure to interest rate risk, liquidity risk or credit risk to achieve a return on assets compatible with investor expectations. Interest rate ceilings imposed in market economies invariably fail to accomplish the intended purpose of providing credit to disadvantaged individuals.

> "In general, empirical studies on consumer credit and mortgages support the idea that when interest-rate ceilings were binding, the volume of loans declined, lenders tried to upgrade quality to the detriment of lower-income individuals, and noninterest methods of compensation increasingly were employed. In the case of mortgages, the latter take the form of closing fees and discounts." [James C. Van Horne, *Financial Market Rates & Flows*, Prentice Hall, (1994), p. 314.]

Unless an HFC is able to obtain an adequate interest spread between the cost of funds and yield on loans, management will ration credit to the least risky individuals, impose noninterest fees or increase portfolio risk. The NHB is advised to eliminate interest rate ceilings applied to existing refinance schemes, but promote the approval of new HFCs to provide price competition within the industry.

Some may question why an HFC would borrow from the NHB at market rates of interest. First, an HFC may be able to borrow funds through the refinance program in an amount when desired. Deposits cannot always be mobilized when desired. Second, the marketing costs applicable to agents, advertising, premiums and branch offices are not incurred when obtaining refinance. Once the industry recognizes that low-cost funding is only available for welfare refinances, more attention will be directed to commercial alternatives.

- **Risk Management and Liquidity** -- The NHB should continue to encourage each HFC to operate with a board of directors independent of management. From a supervisory perspective, the NHB should be alert either to passive or overly aggressive directors, insider-loans and affiliated transactions. Each HFC should be encouraged to develop appropriate risk management techniques that require an institution to identify, measure, monitor and control risk within tolerable levels. At a minimum, risk management techniques should embrace liquidity, interest rate exposure, credit quality and capital. The NHB can promote risk management by offering formal term and liquidity refinances. The term refinance would allow management to extend the maturity and duration of liabilities relative to assets; hence reduce liquidity and interest rate risk exposure at selected HFCs. The liquidity refinance would allow HFCs a known, ready source of funds under prescribed guidelines. The NHB need not increase its own credit exposure by offering term and liquidity refinance products. The NHB should consider replacing the existing 100 percent refinance ratio with a scale that reflects the purpose of the refinance and the deposit credit quality of the HFC. By changing the refinance ratio according to both purpose and credit rating of deposits, the NHB can encourage HFCs to pursue financial policies designed to achieve an "AAA" credit rating on deposits.

- **Welfare** -- The NHB may continue to support welfare lending by housing finance companies through several programs. First, if the NHB is able to obtain funds at below-market rates of interest, the funds could be lent in below-market refinance schemes promoting socially-desirable purposes (e.g., low-income, women, self-employed, etc.) established by the NHB board of directors or another governmental agency. Second, the NHB may wish to require all approved HFCs receiving any refinance to place a certain percentage of assets in directed-loan products. However, management should retain freedom to price directed-loans; thereby avoiding the interest rate ceiling problems frequently encountered in market economies as previously described.

To summarize, the National Housing Bank can use its finance muscle to encourage and/or require housing finance companies to adopt policies and procedures commensurate with the goals of the industry. The industry can best mobilize savings and originate housing loans by operating safely, soundly and efficiently. The NHB should: 1) enforce prudential capital rules and extend commercial refinances to those HFCs meeting minimum requirements, 2) enforce prudential asset classification, income recognition and reserve for loan loss rules and extend commercial refinances to those HFCs adopting the guidelines, 3) encourage all HFCs to originate loans with minimum underwriting and documentation standards and only accept conforming loans as acceptable collateral for a refinance, 4) terminate interest rate ceilings and allow management the opportunity to originate and price loans according to risk and the market, 5) offer term refinances to allow selected HFCs to balance portfolio interest rate risk, 6) offer liquidity refinances to allow selected HFCs to obtain modest amounts of short-term funding, 7) vary the refinance ratio according to the purpose of the loan and the credit rating of the HFC, and 8) offer welfare refinances when the NHB is able to access below-market funding and require such institutions to direct the proceeds to socially-desirable regions or underserved geographic areas.

III The National Housing Bank and Refinance

Risk Profile

If the National Housing Bank is to meet its mission of promoting, supervising and financing housing finance companies, the NHB itself must be recognized as a safe, strong and efficient institution. Historically, the NHB intermediated funds between the government sector and HFCs. As the government has reduced NHB's access to directed funding, guarantees and subsidized loans, the National Housing Bank has been forced to seek market-priced funds. Until India's market differentiates credit quality in general and a "AAA-corporate" versus a "AAA-agency" in particular, the National Housing Bank will find it difficult to raise significant funds for industry members at competitive rates of interest. The financial markets will likely only differentiate credit risk when losses occur during an economic contraction. Until a competitive funding advantage is realized in the marketplace and/or directed, low-cost funding is again provided by the government, the NHB can best reposition itself to support future industry initiatives. The recommended modifications of the refinance Policy are designed to enhance the operations of the industry and to promote the safety of the National Housing Bank.

Based on preliminary credit ratings assigned by several credit rating agencies within India, one HFC is rated "AAA," one HFC is rated "AA" and the remaining institutions cluster around "A". It is imperative that the NHB be rated by the same credit rating agencies and be recognized as an "AAA-agency" with and without the backing of the Reserve Bank of India. Unless the market perceives the NHB to be less risky than the industry it serves, the National Housing Bank will be unable to intermediate a significant amount of funds at interest rates attractive to housing finance companies. Alternately, the NHB would be unable to guarantee HFC deposits or liabilities with a sufficient impact to materially reduce their incremental cost of borrowing.

Credit rating agencies assess both managerial and financial factors of a financial institution prior to assigning a credit rating. The proposed modifications of the refinance Policy must allow the NHB to be recognized with the highest credit rating.

* **Capital** -- The Reserve Bank of India has invested Rs 300 crore in the common stock of the National Housing Bank. The RBI has authority to invest another Rs 200 crore. The RBI may declare dividends on its investment 15 years after making the initial investment. The NHB has built up reserves in an amount of Rs 233 crore as of June 30, 1995. The 1995 capital-to-assets ratio of 14 percent is higher than most apex housing finance agencies in other countries. The NHB must attempt to maintain a capital ratio sufficient to qualify for an "AAA" rating; certainly

no less than risk-based requirements for approved HFCs. Unless the RBI continues to invest funds into the NHB or the National Housing Bank seeks equity support from private sources, capital will only increase if operations are profitable. Currently, the majority of net interest income earned by the NHB is derived from the spread between the cost of funds and the yield earned on investments and refinances. The NHB must seek innovative sources of funds at advantageous rates compared to the majority of approved HFCs. Once the NHB operates at a capital ratio sufficient to retain the highest credit rating, growth will be a function of return on equity earned and cash dividends paid out to the RBI. The ratio relationship is illustrated below.

Capital Formation Growth Rate = Return on Equity (1 - Dividend Payout Ratio) Growth Rate = Net Income/Equity (1 - Dividend Paid/Net Income)

The National Housing Bank is a financial intermediary. It must generate a return on equity commensurate with desired growth. During 1995, the NHB earned a return on equity of 8.3 percent. Assuming the NHB was operating at its optimal capital ratio and the RBI declared no dividends, assets could grow by 8.3 percent without changing the capital-to-assets ratio so important to achieving a high-grade credit rating. The growth rate would decline to 6.7 percent with a 20 percent dividend payout and 4.15 percent with a 50 percent dividend payout. The future ability of the NHB to intermediate funds from a refinance perspective in a market economy will be limited by capital, earnings and dividend decisions. The examples shown for 1995 operations and illustrative future dividend payouts would not allow the NHB to keep pace with inflation, let alone promote an expanded industry.

- **Asset Quality** -- It is imperative that refinances be repaid on a timely basis if the NHB is to generate earnings so important to augmenting capital. The proposed changes to the Policy are designed to enhance asset quality and to reduce agency risk of transactions with HFCs. First, the NHB should discontinue the current practice of refinancing 100% of housing loans. The NHB should differentiate the refinance ratio based on the credit rating assigned the HFC deposits. Housing finance companies awarded better credit ratings will be able to borrow more monies from a given pool of segregated collateral. Based on the average annual historical default rate applicable to bonds initially rated in the US and a fifteen year refinance term, the NHB could expect the following **cumulative** probability of default: AAA (.3%), AA and A (2.5%), BBB (7.1%), BB (14.2%), B (51.0%), and CCC (65.2%). The recommended refinance ratios are lower than implied by the default analysis. If an HFC develops financial problems, its credit rating will be lowered. The default rate applicable to lower quality issuers increases. The legal system favors mortgagors in India. The lower refinance ratio is structured to provide some relief from a poor collection rate for the refinances that require repayment from negatively liens. By the time the NHB exercises its power of attorney in case of default, much value can be dissipated. Second, the NHB should require first charges on refinance activity for below-investment grade HFCs and for liquidity refinances. The first charge discourages such refinances, and improves the legal position of the NHB. Third, the lower refinance ratio partially protects the NHB from lower market values that result from higher interest rates in a market economy.

- **Risk Management** -- It is as important for the National Housing Bank as HFCs to create a fully operational risk management system. The NHB needs to identify, measure, monitor and control risk in a **coordinated** manner. At a minimum, the NHB needs to focus on liquidity risk, interest rate risk, credit exposure and capital risk. The liquidity function must relate scheduled repayments from refinances and investments relative to commitments. The liquidity function must be able to provide short-term funds quickly if requested. The interest rate risk function needs to focus on repricing of investments and refinances relative to borrowings. In particular, the rate risk area must consider more fully consider embedded options included in assets and liabilities that could adversely affect the stability of the NHB's net interest income. For example, a "green shoe" bond issued by the NHB included a put option that would be exercised if interest rates increased. Refinances to HFCs with much corporate housing loans are susceptible to prepayment risk when interest rates decline. The credit risk function must focus on the default exposure from each approved HFC. It is important to note that while regulatory compliance and credit risk are related, the two areas are distinct. From a regulatory perspective, supervisors are concerned that management **has** complied with existing laws, regulations and guidelines, and operate in a safe and sound manner. From a credit perspective, the NHB is concerned that management **will** be able to pay interest and repay principal on a timely basis over a ten to 15 year term. The credit function must also ensure that there are several independent sources of repayment should the HFC default. The finance function should be separate from the supervisory function.

- **Earnings** -- As already described, the NHB must post sufficient profits to obtain an "AAA" credit rating and to support asset growth from earnings retained. The NHB must earn a spread between market-based sources of funds and competitively-priced refinances. If the NHB elects to earn fee income by guaranteeing the debt and/or deposits of selected HFCs, the National Housing Bank will still need both ample liquid assets and sufficient equity reserves to cover potential claims if and when HFCs are unable to meet contractual repayment schedules guaranteed. If the NHB is going to earnestly promote the housing finance industry by supervising all registered and confirmed HFCs, and inspecting the underwriting and documentation standards of approved HFCs requesting refinance support, personnel costs will increase. If the NHB is committed to installing a comprehensive risk management system, additional computer expenses and professional costs will be incurred. Finally, given the shift in funding sources from low-cost directed governmental funds to market-based debt, the NHB must more aggressively seek innovative fiscal activities. The refinance activity requires a credit function, fiscal agent, and inspection function. The refinance activity will heavily impact the overall risk management system of the NHB.

- **Liquidity** -- A market economy, volatile interest rates, shrinking access to low-cost funding and increasing number of approved HFCs all place additional strain on the

National Housing Banks liquidity management. Yet, the NHB must accept, measure, monitor and control the risk if it elects to provide a vital service for housing finance companies. The NHB must at all times retain the ability to sell investments and/or issue securities to provide liquidity required by the industry. The NHB may have to ration refinance activity according to credit exposure. For example, current standards limit the amount of refinance activity to 15 or 25 percent of the NHB's net owned funds. Such a constraint ultimately would limit refinances to about four times capital with approximately 20 approved HFCs. While the refinance-to-HFC constraint may ultimately prove appropriate when the number of approved companies approaches 100, the current standard appears to merely ration limited funds raised by the NHB. The apex housing company ultimately should allow price competition between demand exhibited by housing finance companies and supply from the market to determine who borrows at what rate from among qualified institutions.

To summarize, the recommended modifications are designed to promote the safety, soundness and efficiency of both housing finance companies and the National Housing Bank. Some of the changes are small; others represent a sea change. Safety and soundness are based on adherence to prudential norms and inspection. The National Housing Bank can and should offer several types of refinance programs to allow HFCs a better opportunity to manage risk and create value. Efficiency can best be achieved by allowing managerial discretion to obtain, use and price funds. Otherwise, risk may be substituted for efficiency. A safe and sound housing finance industry best mobilizes savings in India, supports housing finance and provides a reliable source of repayment for NHB refinances.

IV SUMMARY

The recommended modifications of the *Housing Finance Company Refinance Policy* are structured to provide the National Housing Bank a long-term framework to offer refinance. The recommendations recognize that new residential housing loans can best be provided in a market economy if housing finance companies and the National Housing Bank operate as safe, sound and efficient financial intermediaries. The recommendations reflect expectations of volatile interest rates and housing prices that respond to shifts in the supply of and demand for funds, the business cycle and governmental social and economic policies.

- 1) Separate the refinance function from the promotion and supervision activities of the National Housing Bank. The credit decision is distinct from supervision and compliance.

- 2) Differentiate and expand the types of refinance programs offered housing finance companies. Offer *commercial* refinance funded by market rate sources and *welfare* refinances funded by favorable, below-market, government-directed sources. In addition, offer *liquidity* and *term* refinances to allow HFCs to control cash flow imbalances and portfolio interest rate risk. Formalize a *workout* refinance program to anticipate that selected HFCs will encounter financial difficulty related to regional economic problems, a national recession and volatile interest rates.

- 3) To the extent practicable, refinance guidelines should reflect prudential norms applicable to capital, asset classification and income recognition. HFCs unable to meet minimum regulatory requirements should not qualify for commercial, welfare or term refinances.

- 4) The NHB should reduce the refinance ratio from 100 percent to a lower ratio based on the deposit credit rating of the HFC and the purpose of the refinance. In no case should the refinance ratio exceed 90 percent for HFCs whose deposits are rated "AAA/AA/A." The refinance ratio should not exceed 70 percent for HFCs whose deposits are rated "BBB," or 50 percent for HFCs with below-investment grade credit ratings. The refinance ratio should not exceed 50 percent for large (e.g., larger than 5% of an HFCs net owned funds) or long-term (e.g., longer than three-months) liquidity refinances or workout refinances. The NHB should consider varying the collateral required for outstanding refinances if the deposit credit rating declines to lower-medium or a below-investment grade.

- 5) The NHB should accept negative liens for conforming loans from HFCs whose deposits are considered investment grade. The NHB should impose a first charge or require physical possession of collateral for HFCs with below-investment grade credit ratings, and for large, long-term liquidity and workout refinances.

- 6) The NHB should price commercial, welfare, term and liquidity refinances based on the National Housing Bank's marginal cost of funds consistent with the tenor of the loan, the administrative cost applicable to the refinance, an estimate of credit risk, and a profit margin that allows the apex housing organization to augment capital critical to support growth. The NHB could vary the profit margin to meet social objectives of the Bank or to ameliorate volatile interest rates.

- 7) The NHB should require collateral pledged in favor of the National Housing Bank to meet minimum underwriting and documentation standards. The underwriting standards should consider and verify income, loan and house value variables. The documentation standards should consider and verify that a loan is legal and a lien is valid.

- 8) The NHB should include a covenant in any refinance that allows the National Housing Bank to call a loan fully and immediately due if an HFC is acquired or merged with another company. The clause would allow the Bank to protect its rights for HFCs that change corporate structure otherwise detrimental to the NHB's rights.

- 9) The NHB should add a prepayment penalty clause for refinances backed by corporate housing and project loans. The penalty should represent the difference in market value and par value of the refinance at the time of prepayment. The NHB should closely evaluate trends in refinancing of residential housing loans and assess prepayment factors when and if relevant for such loans.

- 10) Ultimately, the NHB should ration credit based on the market. That is, the NHB should provide full access to all qualified HFCs monies raised at market rates of interest. To ensure adequate diversification and risk management, it is appropriate to limit refinances to some proportion (e.g., 25% to 50%) of the National Housing Bank's net owned funds. In addition, to ensure that a HFC does not become too dependent on the NHB for funding, it is appropriate to limit refinances to some multiple (e.g., five times) of an HFCs net owned funds.

The proposed modifications are designed to provide the National Housing Bank a unified approach to providing refinance to housing finance companies. The recommended changes are structured to ensure HFCs and the NHB are operated from a safe, sound and efficient financial and legal base. The modifications mostly build upon the existing Policy and incorporate many themes already adopted by the National Housing Bank.