THE HOUSING DEVELOPMENT FINANCE CORPORATION OF INDIA: EVALUATION OF THE HOUSING GUARANTY LOAN

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PREFACE

The authors wish to acknowledge the generous cooperation of a number of individuals in carrying out this evaluation. The USAID Mission in India was extremely helpful, particularly in providing the services of Y.S. Kumar to the team for the inspection of HDFC-financed units. Mr. Kumar carried out his task with efficiency and thoroughness. AID's Regional Housing and Urban Development Office in Bangkok also provided strong support; Vivianne Pettersson was an especially good colleague. Ruth Dunn at AID Washington ably back-stopped the team.

We also are grateful to Bertrand Renaud of the World Bank for discussions about HDFC and for allowing us to review his extensive files on the company. We would like to thank John Holstein, of the World Bank, for providing World Bank reports on the Indian economy, and Neal Howenstein of the International Division of the Bureau of Economic Analysis of the U.S. Department of Commerce, for discussing foreign exchange issues. Don Gardner, of the United States League of Savings Institutions shared his views on HDFC with us as well.

The officers and staff at HDFC -- both at the headquarters and the branch offices visited -- were exceptionally cooperative and open to the team. Finally, we are grateful to June Koch, Assistant Secretary for Policy Development and Research at the Department of Housing and Urban Development, for making one of the team members available for this assignment.

The exchange rate used in this report is RS. 10 = U.S. $1.00, which is approximately the average rate in effect during the project period. The current exchange is about RS. 12.7 = U.S. $1.00.

1. EXECUTIVE SUMMARY AND CONCLUSION

Background

This section provides a broad overview of the Housing Development Finance Corporation (HDFC), its operations, and the approach of the evaluation team; as such it establishes a framework for the evaluation findings presented in the balance of this summary. Following a brief sketch of the origins and objectives of HFDC, we look at the types of loans it makes and its sources of funds to date. A final brief note describes the approach followed by the team.

The Housing Development Finance Corporation. HDFC began operations in May 1978, with the principal equity contributors being the Industrial Credit and Investment Corporation of India, the International Finance Corporation, and the Aga Khan Group. Initial paid up capital was $10 million. The founding of HDFC was significant in that it is the first private finance development institution dedicated to housing.

The primary objective of the Corporation is to provide long term finance to middle and lower income households, associations of individuals, and corporate bodies for the construction, purchase, and ownership of residential units. HDFC's purpose is to increase the housing stock in the country generally. Another HDFC objective is to mobilize long-term resources in the form of deposits and term debt and to transform short-term resources into long-term housing investment. A longer-term objective is to lead and support the development of a national housing finance system, and relatedly to foster the growth of the capital market in general.

In June 1984 (the end of the HG001 disbursement period) HDFC had nine branches scattered around the country in addition to its headquarters in Bombay. However, loans have been concentrated in the West and South regions of the country; and funds mobilization has been concentrated at corporate headquarters.

Types of Loans. HDFC engages in four types of mortgage lending. These include loans to individuals for acquiring a home, loans to corporations for workers' housing or for on-lending to workers for home acquisition (called the line of credit program), and loans to groups of homeowners who have formed an association for acquiring an apartment building.

An idea of the relative importance of these different types of loans is available from the following tabulation, which shows loans made in HDFC's fiscal year 1984 (the final year of HG001 disbursements) and cumulative totals.

Percentage Distribution of Loans by Type[a]

	Loans Made in FY 1984		Cumulative Loans Made	
Loan Type	Units	Amount Lent	Units	Amount Lent
Individual	72	82	69	78
Group	—	—	2	2
Line of Credit	3	4	4	4
Corporate	25	14	25	16
Total (percent)	100	100	100	100
Total Units/$	26,407	$100 mill.	79,760	$285 mill.

a. Excludes a small number of development period loans.

Sources of Funds. In addition to its initial equity, HDFC has generated funds to support its lending operations from deposits and borrowings — including term loans, the Housing Guaranty 001 loan, and most recently, selling its own bonds. The following tabulation shows the pattern of funds mobilized in the fiscal years ending in 1981 and 1984. These are flow figures; i.e., they show the sources of new funds raised.

Changes in HDFC's Sources of Funds

Over the Previous Fiscal Year

(percentage distribution)

Type	1984	1981
Deposits	57	86
Borrowings	43	14
bonds	(11)	—
term loans	(11)	(14)
HG loan	(22)	—
Total	100	100
Total (millions)	$ 93	$ 26
Increase year-to-year (percent)	86	82

The $20 million of the Housing Guaranty 001 Loan disbursed in 1984 constituted almost a quarter of the total funds mobilized in that year. A comparison of the two years shows HDFC's substantial diversification of sources over the period.

The Housing Guaranty Loan. The broad objective of the HG001 loan was to contribute to a fully functioning and viable housing finance system in India. In essence, the project purposes were to improve

HDFC's ability to raise additional domestic capital, accelerate the institution's development on a broad geographic basis, and to encourage HDFC to make more long-term loans which would directly benefit lower income households. An additional purpose, associated with the corporate lending, was to support GOI policy for decentralization of industry away from the largest cities. One of the goals established was that approximately one-third of the loan beneficiaries be households with incomes below the median income figure.[1]

The rationale and approach underlying the loan are well expressed in the Strategy Statement of the Project Paper:

> AID's strategy is to assist the HDFC, as a private sector institution, to expand its operations at a more rapid rate so that it can make a significant beginning in the provision of long-term housing finance to all income levels. By helping to expand HFDC's operations, the HG will not only contribute to increased earnings of the HFDC but should have a catalytic effect on HDFC's ability to attract additional investors, lenders and depositors because of the expanded operations. (pp. 11-12)

The $30 million HG001 loan was released in two tranches of $20 million and $10 million, respectively, in 1983 and 1984.[2] Although HDFC did not utilize the HG authority to borrow the guarantied funds until January 1983, the Loan Agreement permitted HDFC to apply the funds obtained to loans disbursed after July 1, 1981. The final liquidation of HG001 funds was in June 1984; hence, the time period over which the

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1. For more on the project objectives, see Annex A.
2. Because of the time lag in transforming the guarantied loan as borrowed in New York into rupees supplied to HDFC by the borrowing Indian bank, $10 million appears in the HDFC financial report for FY 1982-1983 and the balance in 1983-1984. More information on key dates is provided in Annex B.

HG001 funds were used by HDFC to finance loans corresponds almost exactly to the three HDFC fiscal years 1981/1982 to 1983/1984.

A final aspect of the loan which is important to note at the outset is the evolution of the focus on lower income households over the period of the loan and particularly between the two loan tranches. The general target remained the same, in the sense that about one-third of HDFC's beneficiaries were to be lower income households. The change came in the mechanism for reaching them. In the original Project Paper it was envisioned that the primary, even sole, vehicle for assisting lower income households would be the corporate program for workers. Here the beneficiaries would be lower income households, even if they could not themselves afford the units they were occupying. As events developed, HDFC found that a considerable percentage (about 17 percent) of the households who were receiving loans in the individual loan program were also lower income households, as defined by the median income definition in the Project Paper. Thus, there was an increase in the number of vehicles used to serve the poor.

As part of the conditions for the second tranche of the HG001 loan, AID required HFDC to develop an explicit statement on serving lower income households and an action plan to begin executing it. This requirement should be thought of realistically as positive pressure on HDFC to go beyond what it had been able to achieve with less effort in this direction.

Lastly, note that in addition to the funds provided under the Housing Guaranty loan, AID also provided a $100,000 grant for technical assistance during the same period.

Evaluation Team Approach. The team, composed of two consultants and one person detailed from the U.S. Department of Housing and Urban Development, spent approximately six days in Washington and Bangkok (RHUDO/Asia) reviewing documents, discussing the HG001 project with AID staff and consultants previously directly involved with it, and discussing Indian housing finance and capital markets with World Bank staff. The team then spent two weeks visiting HFDC offices in India, both the headquarters in Bombay and three of nine (as of June 1984) branch offices — Pune, Madras, and Bangalore. The team was assisted while in India by an AID engineer who carried out a series of inspections of the quality of dwellings financed by HFDC.

The balance of this summary addresses the series of issues outlined in the terms of reference and concludes with an overall assessment of the success of the Housing Guaranty Program with HFDC over the 1981-1984 period and an outline of the balance of the report.

Resource Mobilization

HDFC has clearly accomplished the goals set for it with respect to mobilizing resources, minimizing the problems associated with the development of a viable financial institution, and affecting public policy to encourage the development of a cost-effective housing finance system.

As for its quantitative accomplishments, at the end of FY 1984, HDFC was more than 150 percent larger than had been projected by the initial IFC Proposed Investment Paper. It was 6 percent larger than the forecast made in the initial Housing Guaranty Project Paper; it had increased its reliance on financing through term borrowings to 40 percent of total borrowings, whereas the initial Project Paper forecast that term borrowings would increase from 34 to 45 percent. (By the end of calendar year 1984 the share of term borrowings had risen to 42 percent.) In the three year period taken to disburse the HG001 loan, it had raised 25 percent more resources in local markets than had been targetted as a desirable achievement level in two years by the initial Project Design Logical Framework.

On the other hand, it does not seem likely that the firm will achieve the longer term goal of directly raising $400 million of domestic resources within five years of the HG loan disbursement. For example, the most recent (December 1984) IFC balance sheet projections suggest that HDFC will fall approximately 15 percent short of the five year target. One must question, however, whether this goal, which implies an annual growth rate of 40 percent per year for an extended time period, is in the best interests of the firm. While it is clear that the firm can and has grown very rapidly, it is also clear that growth spurts in domestic resource mobilization, such as the 94 percent realized between FY 1983 and FY 1984, should be followed by periods in which such gains are consolidated. This consolidation of gains seems particularly important because of the sources and the context within which HDFC can raise as well as leverage other domestic resources.

There are three basic types of resources directly available to HDFC: (1) deposits, made by corporations and individuals; (2) term borrowings, made exclusively by large financial intermediaries, such as commercial banks and insurance companies; and (3) bond issuances that permit HDFC to tap the capital markets directly. In addition, perhaps equally important as its direct mobilization, HDFC can mobilize domestic resources indirectly in two other ways: first, by taking an equity position along with providing technical advice in other financial institutions that provide housing finance services to low income households; and, second, by helping to implement public policy changes that make the regulatory environment more conducive to the development of HDFC imitators. This section concentrates on the "traditional" sources, while the next two explore these other avenues.

Deposits. At the end of the 1984 calendar year, 58 percent of the firm's total debt derived from deposit schemes. The overwhelming share (about 85 percent) of these deposits come from corporations, of whom about 20 percent (mostly government owned corporations) make the deposits as part of a broader financial package in which HDFC then agrees to make individual housing loans available to the corporation's employees. Depending upon the overall composition of the financial arrangement, i.e. depending on the maturity and size of the deposit, HDFC has varied the ratio of housing loans to corporate deposits between three and two to one.

HDFC follows a similar "broader financial package" approach in its efforts to mobilize household deposits. A mortgage loan linked savings scheme has been tried and a plan based upon the German Bausparkassen program is in the planning stages. Both schemes, as well as the firm's outreach efforts to non-urban areas, are based on the notion that the advantages to depositors of placing their funds in HDFC are not strictly limited to the return on the deposits. Access to credit for households,[1] and the maturity structure of the deposit schemes and relative safety of return for corporations, are important considerations in the portfolio decisions that govern the growth of HDFC deposits.

In the context of the Indian financial system, which relies heavily upon centrally-imposed interest rate ceilings, such non-price competition is not surprising. HDFC attempts to find "niches" in the market in which the whole array of services it provides, not just the explicit return on the deposit, offers the depositor the highest overall implicit return. Thus, the growth of HDFC's deposits relies heavily upon an aggressive outreach program in which the non-price aspects of HDFC savings are explained to potential customers.

The growth of deposits is essential to the firm so that fund sources will be highly diversified. And credibility, market presence, and stability of the institution are the major ingredients in determining the demand for HDFC deposits. Because of the intangibility of these factors and their self-fulfilling nature, it is difficult to forecast deposit growth. Nevertheless, it is possible to argue that HDFC's record has been impressive in establishing itself and explaining the value of its services. Some evidence of this is provided by the IFC projection of a 150 percent increase in the firm's deposit base over the next three years.

Term Borrowings. HDFC's domestic term borrowings come from: (1) the Reserve Bank of India which provides an allocation level for funds from commercial banks; (2) three different insurance companies; and (3) a loan from the Industrial Credit and Investment Corporation of India.

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1. HDFC does not make previous deposits a condition for granting loans, but depositors doubtless feel more secure about their future loan possibilities.

Its international borrowings have been the HG loan and an IFC line of credit. Over the time period of disbursement of the HG001 loan, domestic borrowings increased by $27.4 million. In addition, in the past year the commercial banks have allocated up to $20 million of such loans for HDFC, the Army Group Insurance Company has loaned HDFC $15 million, and other armed services insurance funds have made smaller allocations.

The relatively long maturity of these loans and the lower level of staff effort needed to generate them makes them attractive to HDFC. Perhaps the central operational implication for HDFC of their use is their "lumpiness". For example, in FY 1984 the Reserve Bank of India, because of concerns about commercial bank profitability, allocated no commercial bank funds to housing after having allocated $10 million in each of the two previous years. If the funds were a significant share of HDFC's liabilities, such variability in funds could create obvious problems for a firm with a financial structure like HFDC's. On the other hand, as noted above, there have been encouraging developments towards greater diversification of funding sources.

Bond Issues. In the last fiscal year HFDC successfully issued its maiden public bond offering of $10 million. The success of the issuance has potentially important implications for the firm's growth and profitability; and it seems very likely that HG001 contributed significantly to this successful venture. In an interest rate ceiling-constrained financial system, timing is a very important factor in the success of a public debt offering. If market conditions are stringent, it is more difficult to get a full subscription, because the effective implicit market interest rate is much higher than the nominal bond rate. However, if less than full subscription for a maiden offering is obtained, it might well suggest that the market lacks confidence in the offering institution. Having the capacity to wait for a propitious moment for debt issuance may well have long-term consequences for corporate growth. It appears that the HG loan provided such capacity. HDFC received permission from the Ministry of Finance for a bond issuance without government guarantees in 1982, but waited until 1984 to make the offering. In the event, it was oversubscribed.

In the past year HDFC has issued $4.5 million in private placement bonds and has done some of the analytical groundwork necessary to determine whether bearer bonds might be an effective instrument to tap capital markets. If GOI were to approve the use of such an instrument it might be used to channel some of the alleged large amounts of black money into the formal financial sector. Such channeling, if it occurs on any significant scale, should also help resource allocation generally.

Other Forms of Local Resource Mobilization. HDFC is in the design stages of two particularly innovative ways to mobilize local resources. They are brought up at this point simply to indicate that the long term direct mobilization goal of $400 million over five years stated in the HG001 Project Paper may have been too narrowly construed.

Simply put, both proposals involve HDFC along with others taking a small equity position in housing finance institutions in locations currently under-served, i.e., rural Gujarat and the eastern area of the country. There is almost no question that equity participation by international agencies in these projects — which is in firm prospect — would not have been forthcoming without HDFC's participation and promise of technical assistance to these firms.

Cumulatively, the team views HDFC's local resource mobilization efforts as enormously successful. The firm has diversified the number and type of investors and depositors, and it has continually sought to exploit "niches" in the market that are often created or associated with an interest rate ceiling system. The firm seems particularly well placed to develop the deposit market by reliance on brokers for individual deposits and the new technologies that are emerging in the gathering of deposits.

Financial Management

The chief types of problems confronting a firm like HDFC are developing market acceptance and avoiding unnecessary risk exposure. The record on funds mobilization has been reviewed. Here the focus is on the four types of risk to which HDFC is exposed: default risk by households, interest rate risk, corporate loan risk, and commitment or sanction delivery risk.

Default Risk. In the Indian legal system foreclosure laws are such that a technical default on mortgage payment may take years to resolve. As a consequence the expected costs of default are very large. HDFC has clearly avoided this problem. It has done so through: requiring large downpayments by households; requiring guarantees from other individuals on about 30 percent of the individual loans; providing technical advice to borrowers on adjustments in construction and/or portfolio plans that will permit them to fulfill their aspirations more efficiently; and by convincing state governments that HDFC loans should be eligible for payment through salary deductions.

The record speaks for itself. On over 76,000 loans they have had no individual loan defaults and their loans in arrears ratio is .3 percent, lower than those of building societies in the U.K. and considerably lower than U.S. rates. The record on preventing default is perhaps the chief reason why the IFC is willing to take an equity position in a rural housing finance scheme in Gujarat State.

Interest Rate Risk. The firm has carefully structured its assets and liabilities so that there is very little interest rate risk exposure. Not only is there very little imbalance between the maturities of its assets and liabilities, but loan terms also include a fall-back clause that permits HDFC to increase interest rates if it so chooses. This provision is tantamount to giving the firm a catastrophic insurance policy. A shift in the interest rate structure that had such onerous implications for the U.S. thrift institutions cannot impose similar costs on HDFC. While HDFC does perform some maturity intermediation and has made it clear that it will not raise rates unless it has to, it nevertheless has protection against large shifts in financial circumstances.

Corporate Risk Exposure. Because HDFC makes loans to corporations and to blocks of employees of particular corporations, the firm is exposed to the same type of risk as would be a commercial bank that lent to corporate borrowers. The team reviewed HDFC's decision-making process for such loans and found that each firm's balance sheet and prospects are closely reviewed as part of the loan decision. The team sees these practices as effective.

Sanction Risk Exposure. By agreeing to make credit available if a household can get the other necessary resources together, HDFC also affects the construction of housing of those who ultimately do not make use of the commitment. Because a household knows that a certain amount of funds will be available if it liquidates other assets, borrows from parents, buys land, etc., it may be willing to undertake these actions even if in the end it does not use HDFC funds. HDFC staff estimate that about 7 percent of their loan sanctions are not disbursed, and that about half of these cancelled sanctions occur because the household got money elsewhere.

HDFC has minimized its risk exposure in this area in three ways: (1) reducing the ratio of sanctions to disbursements from 2.56 to 1.29 over five years; (2) leaving its commitment open-ended as to the interest rate it will charge; and, (3) diversifying its depositors and investors so that rationing decisions by another financial institution or government regulator have less effect on its ability to deliver on its agreement.

In sum, HDFC has clearly moved aggressively into housing finance intermediation. Equally clear is the cautiousness of the institution. Under present operating practices it is subject to very little risk exposure. Furthermore, its debt to equity ratio is much lower than those thought prudent for U.S. financial institutions that have been much more risk exposed.

Policy Impacts

The realization of HDFC's financial record, as well as the development in India of a regulatory environment in which spontaneous development of a market-oriented housing finance system can occur, is in large part attributable to the firm's regulatory entrepreneurism. As the first institution of this sort in India, i.e., neither a bank nor a non-financial firm, HDFC has had to seek modifications to a number of regulations that constrained its operations. For example, initially HDFC could not advertise for deposits; its deposits had to be of at least six month maturity; the tax treatment of the deposits was more onerous than that on commercial bank deposits; trust funds could not make such deposits, and after they were permitted to do so their tax treatment was still onerous; provident fund savings could be used for housing payments but not HDFC mortgage payments; mortgage payments could not be deducted from the salaries of many workers by employers; and, the firm's eligibility to receive fund allocations from other large financial intermediaries, e.g., commercial banks, had yet to be determined.

A good deal of principal staff time (on the order of 15 percent) has gone into the development and marketing or proposals and recommendations for regulatory changes. All the above mentioned regulations have been changed or modified as a direct result of HDFC staff and Board efforts. Furthermore, while this kind of staff expenditure does not seem inordinate, it has been very effective. For example, in one of the Chairman's previous capacities he was aware of a modification made to the Indian Trust Act of 1882 that enabled the

Indian Unit Trust to avoid a bout of disintermediation. He used this experience to propose HDFC as the second private sector exception to this act, making it eligible for trustee status for charitable trusts. Achieving this status has not only permitted charitable trusts to invest in HDFC, it as well gives the firm the equivalent of a AAA credit rating.

HDFC's regulatory entrepreneurism also plays a large role in the firm's allocations of commercial bank funds. In 1978 a Reserve Bank of India commission (the Shah Commission) recommended that the commercial banking system could play an important role in the development of the housing finance system. As a result of this study the RBI agreed that commercial banks should allocate $100 million to housing finance. The following year RBI allocated another $150 million. Ultimately HDFC was able to obtain over $40 million of these funds through persistent lobbying.

In sum, the regulatory change and shift in financial allocational emphasis has helped to establish ground rules to enable the private sector to become increasingly interested in housing finance services. Two firms have recently been listed on the Bombay stock exchange to engage in such activities. One of these is a diversified financial services firm with over 150 branch offices. Thus, HFDC can expect increasing competition for the funds allocated by large financial intermediaries. In the future it will not just compete with public sector firms for housing credit allocations. However, given the GOI's recent pronouncements on the need to expand such allocations, it seems likely that the supply of funds should expand, at least in the immediate future, at least as rapidly as the increase in competing demands.

Low Income Targeting of HDFC Loans

The Housing Guaranty loan had the explicit objective of increasing HDFC's emphasis on loans that provide housing for lower income households. An objective set by AID at the outset of HG001 was that one-third of HDFC's beneficiaries should be lower income households. Before the second tranche of the loan guaranty could be used, AID required HDFC to develop a low income policy statement and an implementation plan enumerating specific measures the firm was taking or intended to take to reach more lower income people.

The Record. During the period that HG001 funds were being used, HDFC's fiscal years 1982-1984, approximately 30 percent of all the beneficiaries of HDFC loans were lower income households, following the definition agreed to by AID and HDFC of 1200 rupees per month (about $120). This income level was intended to reflect the income distribution of the urban portion of the Indian population. This 30 percent total is made up of both individual borrowers and beneficiaries of HDFC's Corporate Loan Program.

Among loans repayable by individual borrowers, including line of credit and group loans, HDFC data shows that 17 percent of borrowers had incomes below 1200 Rs./mo. at the time the loan was sanctioned. This is confirmed by a file search undertaken by AID which concluded that 18 percent of the loans sanctioned between December 1982 and December 1983 were to households below 1200 Rs./mo.

HDFC management reports estimate that 79 percent of the workers intended to occupy housing built with an HDFC loan repayable by the corporation had incomes below 1200 Rs./mo. The team's visits to seven corporate housing projects confirmed that the types of workers for whom the housing was planned are indeed living there.

The team's finding is that HDFC's record represents effective achievement of the goal that approximately one-third of households benefitting from HDFC loans have incomes below 1200 Rs./mo.

Low Income Policy and Plan. HDFC's approach to attempting to reach a broad range of income levels, including a substantial number of those below median income, has been to try through its loan processing practices to overcome barriers to qualifying lower income applicants for loans. This is done to the extent feasible within the standard structure and underwriting rules established for the individual loan program. Otherwise HDFC has moved slowly and cautiously in a number of areas where it was believed that innovations might reach additional lower income borrowers without compromising the firm's financial integrity. For example, HDFC has experimented with some variants on its standard loan terms, but has been reluctant to do this on a broad scale. There has been rather more emphasis placed on special projects of a highly individual nature.

Standard Practices. HDFC's standard loan terms include an indirect cross-subsidization of lower income borrowers through its schedule of interest rates for loans at different amounts. Borrowers of less than Rs. 20,000 usually have incomes below 1200 Rs./mo. and are charged 12.5 percent, slightly below HDFC's marginal borrowing rate of about 13.3

percent. HDFC outreach to potential borrowers includes considerable emphasis on groups likely to include lower income people -- factory workers, low paid public employees such as schoolteachers and postal workers, and residents of smaller towns within the region covered by each HDFC branch office. There has been a growing emphasis on customer relations in HDFC staff training, which may be particularly important for lower income people who have difficulty getting through the fairly complex and rigorous loan application process.

Finally, the underwriting of HDFC loans emphasizes working through the special problems of applicants who do not on first review appear to be able to afford the loan. HDFC technical staff advise applicants on reducing the size and design of the house. In many cases, after a review of the family's total financial situation and potential income growth, loans that require more than 25 percent of income for repayment (HDFC's standard rule) are permitted.

The team's conclusion is that HDFC views lower income borrowers as an important part of its market and that this is reflected in both the marketing and processing of its individual loan program.

On the corporate side, HDFC appears largely to process the loan as applied for, letting the corporation determine the income ranges of workers who will live in corporate housing. There have, however, been some cases in which HDFC has successfully suggested that the corporation reach additional people by building more units at lower cost per unit.

New Approaches. HDFC has made a very few loans with 20 year terms, making an exception to its standard maximum 15 year term in the individual loan program. The firm is reluctant to expand this practice, not only because of the risk of interest rate mismatch between long term assets and short term liabilities, but also because of a concern that some of its current sources of funds could disappear all together through unpredictable changes in Government of India tax and credit allocation policies. HDFC has also experimented with a form of graduated payment mortgage (the Step-up Repayment Plan) but has been reluctant to expand this effort because of the increased default risk and the administrative costs of varying standard collection practices. Finally, HDFC has been gearing up for over three years to introduce a Home Savings Plan, modeled after the West German Bausparkassen program, in which an individual will contract to deposit a certain amount with HDFC over a two to seven year period, receiving a below market interest rate, and then will be permitted to borrow an additional amount at a below market rate. This innovation has been delayed because of limitations on staff time and is now planned to begin in May 1985. HDFC's goal is for a gradual build-up of Home Savings Plan account. The firm acknowledges that the pool of funds established under this program may not be adequate to permit draw-down of loans and may, therefore, require a subsidy from other HDFC resources.

Special Projects. The low income implementation plan prepared for AID emphasized a group of special projects designed to reach low income target groups. Since then other, similar projects have been identified by HDFC and AID as special low income initiatives. Indeed, the terms of the HG002 loan require that at least 15 percent of loan funds be used for such projects. Of the projects identified during the HG001 period, two have come to fruition. These have provided loans to rural population groups, in one case to upgrade traditional housing made of impermanent materials and in another to replace such housing with permanent structures. Two other projects in the original low income plan are still in the planning stages and HDFC's ultimate role is doubtful.

The team concludes that HDFC has made a good faith effort to implement the low income policy and plan agreed to with AID as a condition for releasing the second tranche of HG001. The policy and plan have increased HDFC's emphasis on reaching lower income people. However, it is the team's view that an excessive amount of HDFC staff energy has been spent on special projects and, as will be discussed further below, recommends that this area be deemphasized in favor of new approaches that will have a more systemic effect on HDFC's mainstream loan programs.

The Corporate Loan Program

HDFC's corporate housing program provides large benefits to the workers who occupy company-owned units on a rental basis. They typically live in housing substantially better than they could otherwise afford on the basis of a heavy subsidy from their employer. Rent charges are low -- ranging from no rent to 5 or 10 percent of salary. In a standard case rental payments cover only 15 percent of the 620 rupee average monthly cost of the housing unit to the corporation, and the subsidy represents a 50 percent increment in the employee's basic salary. The subsidy is viewed by both the company and its workers as part of the compensation package.

HDFC financing makes it possible for companies to provide housing for their workers by making loans that are easily available, unlike loans from governmental institutions, and available at more favorable rates than the principal non-governmental alternative source of funds, inter-corporate borrowing.

The structural quality and amenities of corporate-provided housing are basically the same as for units purchased by individual borrowers at income levels at or below 1200 Rs./mo.; and the number of occupants for the size of the unit is usually lower. Units visited by the team were structurally sound and well maintained.

While the occupants of rental worker housing must vacate their units when they leave the company's employment or retire, this does not appear to cause hardship. Most workers stay with a company until retirement and a somewhat common pattern is for a worker to begin buying his retirement house several years in advance, using a combination of withdrawal of provident funds, other savings, and, sometimes, homeownership loans from the company. The low cost of company rental housing may, in fact, contribute to the high savings rates that make homeownership possible for these workers.

In addition to providing low rent housing as part of workers' compensation, a number of companies build worker housing because their plant is located in an area remote from a population center with a skilled labor force. Housing must be provided for skilled workers because there is no acceptable local housing or no housing close enough to the factory. The availability of an HDFC loan makes possible, or at least advances the schedule, of industrial expansion in such areas. It thus supports the Government of India's program of dispersing industry away from major metropolitan areas.

Worker rental housing built with HDFC financing usually is part of a larger system of company provided housing assistance. There are at least three ways in which HDFC finances homeownership for industrial workers, and a company that owns worker rental housing usually is also involved in at least one of them. (1) An HDFC corporate loan, i.e., a loan the corporation is directly responsible for repaying, sometimes is used by the company to build housing that is sold to workers on an installment basis, with or without an interest subsidy, rather than rental housing. (2) HDFC has a program that provides a line of credit to the company, which screens individual homebuyers from among its employees and guarantees repayment to HDFC. (3) Many companies' employees take loans from HDFC on an individual basis, and, where permitted by law, the company agrees to deduct their monthly payment to HDFC from their salary. As noted above, HDFC sometimes links corporate deposits to commitments to make a certain volume of loans to the company's employees.

There are circumstances in which homeownership, even with a subsidy, is not possible. Where the plant is located in a remote area, the workers may not be willing to buy housing units, even if they can afford them, as they intend to return to their place of origin at retirement. In addition, the company may want to keep a stock of company-owned housing because it needs it for essential staff near the plant site. Such essential staff include, for example, skilled workmen who service machinery.

Where workers are willing to buy and alternative housing is available for future workers, some companies have been willing to provide a homeownership subsidy, rather than low rent housing, as part of the compensation package. Forms of subsidy include transfer of company-owned land and in-kind contributions to construction, as well as interest subsidies. The trade-off between subsidized homeownership and low rent company-owned housing is a matter of company policy and, sometimes, negotiation with the unions.

The corporate loan program is a money-maker for HDFC, carrying higher interest rates and shorter terms than individual loans. It thus indirectly helps HDFC reach lower income borrowers through the individual loan program without compromising the firm's financial integrity.

Prospects for growth in HDFC's corporate loan program appear good. The Government of India's Seventh Plan continues to emphasize incentives for plant location in officially-designated backward areas and, in a country with a severe housing shortage, workers are likely to continue to press for housing as part of their compensation.

If HG funds could not be used for HDFC corporate loans, this would not affect the volume of such loans. Rather, the effect would be to limit HDFC's overall growth rate, since HG funds would be drawn down more slowly. This might put some additional pressure on HDFC to reach lower income borrowers through its individual program. However, given the reasonable efforts HDFC is making to target its individual loan program to lower income borrowers, the team does not believe this consideration should be given much weight.

In sum, the team concludes that the corporate loan program is an appropriate use of HG funds. It provides substantial benefits to lower income workers by realizing companies' willingness to provide housing as compensation for workers, thereby adding to the housing stock in a country with a vast shortage of decent housing. And it supports the ability of HDFC to reach other low income households through cross subsidies. Moreover, in a highly unionized environment like India, the exploitative aspects of "company towns" are unlikely to exist; and the team saw no evidence of this at the projects visited. Finally, the availability of financing for company-owned housing has not acted as a barrier to homeownership opportunities for Indian workers.

Technical Assistance

The $100,000 in technical assistance funds provided during the HG001 period was used for what can be broadly defined as training activities. About two-thirds of these funds supported a management audit and general staff training exercise. The training concentrated on significant deficiencies in personnel matters and intra-firm communications documented in the audit report. It is the team's opinion that the audit was thoroughly done and the results effectively communicated to HDFC. In addition, the training conducted as a direct consequence of the audit was a very high priority to the firm. The audit and training taken together had significant impacts on HDFC. It provided the overall framework for the improvement of non-financial management procedures and personnel practices including recruitment, training, and compensation. It also achieved immediate gains in the form of improved working relationships within the firm, even down to the staff-manager level, as well as between central and branch offices.

The balance of the technical assistance funds supported executive training of two major types, both of which involved sending senior staff to conferences, seminars and similar events: meetings focused on low-income housing and urban development issues, and meetings on financial management and entrepreneurism. The gains here are much more difficult to measure, but the experience seems to have genuinely broadened the perspective of those involved, especially in regard to low income housing alternatives and ways of assisting lower income households. This in turn has made those participating more receptive to working on initiatives involving low income households.

Housing Quality

Questions have been raised about the quality of the housing financed by HFDC, not because of any indication of problems existing but rather as part of a general concern about sound business practices. From HFDC's perspective, loans on poorly constructed buildings could increase the likelihood of mortgage defaults and mar its reputation. From AID's perspective, association with deficient units -- through its lending to HFDC -- could be a source of embarrassment. To study this issue the team reviewed the procedures followed by HFDC in appraising and inspecting units on which it might make loans and an AID engineer inspected a sample of properties for which AID funds had been employed for the mortgage to determine if gross deficiencies were present.

The team's findings are:

(a) the procedures followed by HDFC regarding inspections of units during construction and appraisal are prudent and adequate;

(b) HDFC's exposure to loss is extremely limited due its highly conservative underwriting practices, which are designed to protect it from the necessity of foreclosure proceedings;

(c) inspections of 7 corporate projects and 21 units involving individual loans selected by the team from three branch offices uncovered no instances of deficiencies; construction quality as rated by the AID engineer ranged from satisfactory to excellent.

Based on these findings, the team concludes that there is no reason for AID to undertake inspections of HDFC-financed units.

Overall Conclusion and Recommendations

HDFC is a financially sound institution whose ability to sustain itself as such in the future is without question if current policies are followed. Moreover, the team believes that the Housing Guaranty loan -- both in its timing and magnitude -- importantly affected the ability of HDFC to achieve its present position. There is no question that HDFC is playing a key role in the development of a private housing finance system in India and it may have modest longer term effects on the efficiency of the financial sector in general by demonstrating the utility of private institutions and in accomplishing regulatory changes which will pave the way for the establishments of other firms. In this sense, the broad purposes of the Housing Guaranty loan have been achieved.

In addition to the general objectives, the HG had several specific goals regarding HDFC development. These quantitative goals, which were in the logical framework of the 1981 Project Paper, are listed in Table 1.1, along with the actual HDFC experience. At the time the initial Project Paper was written, it was anticipated that the HG funds would be dispersed over a two year period. Hence, two year goals and longer-range five year goals were developed. The actual disbursement period turned out to be three years. So, some interpolation is needed in comparing the goals with accomplishments.

The team's opinion is that HDFC substantially achieved the goals set for it. To appreciate the reasons for this judgment some comment on several of the goals is necessary.

- Regarding increased resource availability, HDFC was below the two year target at the end of two years but its growth accelerated in 1983- 1984. Moreover, it is important to note that HDFC has substantially exceeded the projections in this area which the International Finance Corporation made for it and is essentially in line with its own projections made in 1981.

- In terms of expanded operations, the number of branches opened fell short of the goal (2 vs. 6 over three years). On the other hand, HDFC has opened three branches since the end of the loan period. More loans have been processed than stated as the goal (on an annual basis).

- As to loans to corporations, the number of loans is almost exactly on target, if one uses the annual rate implied by the five year goal (133 loans actually made vs. a goal of 135). The number of units financed is below the goal by several thousand units. However, the goal was set on the basis of the HG funds being devoted to corporate loans, when in fact a large portion of HG funds have supported individual loans.

- HDFC has essentially met its target with respect to the share of beneficiaries (home owners plus workers living in corporate housing) who have incomes below the median household income figure employed in the project.

TABLE 1.1

PROJECT PAPER GOALS AND HDFC ACCOMPLISHMENTS

activity	goal 5 year	 2 year	actual 3 yrs (1981-1984)
increased resource availability (mill.)	$400	$110	$140
expanded operations			
- new branches	2 per year		2 total
- loan applications processed (total)	78,000	32,000	56,506
increased corporate loans			
- number of loans	225	75	133
- number of units	22,000	13,500	11,839
low income beneficiaries	approximately one-third of loan recipients or beneficiaries		30%

Note: the number of loan applications included under the second activity are for individual loans only.

The ability of HDFC to pursue the development of a financially-sound housing finance system in India depends on the continued success of regulatory entrepreneurism. There are still a number of important legislative and regulatory requirements that tend to increase the cost and reduce the availability of funds for housing finance, particularly for low income borrowers. HDFC staff are continuing to hold discussions with GOI officials to effect these changes.

In this light, the second HG loan can be viewed as a sustaining housing investment similar to the first loan. However, it is even more an investment in establishing a rationalized housing finance system than the initial loan. If HDFC is successful in achieving the regulatory change it seeks, it will have established a set of ground rules for a new type of institution that is not only financially sound but also able to provide assistance to lower income households. As HDFC — and the housing finance system — matures, several adjustments to its activities, including those undertaken with HG funds, could be made which the team believes could place it on a better footing for the future.

These recommendations fall into three groups: (1) local resource mobilization; (2) low income policy; and, (3) the corporate loan program.

(1) Besides the direct effect of helping to provide adequate housing for lower income households, the primary accomplishment of HDFC has been the demonstration that funds can be effectively mobilized for this purpose by reliance on private sector initiatives. These initiatives are, however, constrained by Indian credit market policies

that limit explicit competition for funds. The firm has shown a good deal of creativeness in exploiting opportunities that are either created by or associated with existing credit market constraints. This activity should be encouraged because it is only through the development of a broad-based investor constituency that the firm's financial independence can be assured. Furthermore, it is through this type of competitive endeavor that the benefits of a formal financial system are made more apparent to an economy that channels less than 20 percent of its financial transactions through financial intermediaries.

Accordingly, the team recommends that HDFC strongly pursue its policy of expanding its base of individual deposits. Additionally we admonish AID to consider not simply the beneficiaries of HDFC loans in computing a measure of HDFC's assistance to the lower income sector. The long run gains to low income depositors — flowing from establishing a relationship with a formal financial institution — represents an important public policy improvement.

(2) Through its efficiency HDFC has reduced housing finance costs. However, these gains cannot be expected to offset the higher housing costs for many lower income households associated with other housing and credit market regulatory structures. While cross-subsidization of HDFC loan recipients beyond the limited scaling of interest rates already in place would help individual households, it would also have the perverse effect of relieving pressures to remove existing regulatory impediments.

With its small staff, HDFC's chief function is to provide efficient real estate finance services, and there is a very short supply of such services in the Indian economy. Accordingly, in implementing its low income policy the firm should focus more on systemic financial aspects of housing rather than the present, staff intensive emphasis on special housing projects that either may not be replicable or else do not, in fact, differ significantly from HDFC's standard corporate or line of credit programs.

In particular, the team recommends that attention be given to two pressing areas: increasing affordability through loan term modification; and expanding the supply of market rate mortgage credit. In the first area, we recommend the consideration be given to schemes that reduce mortgage payments without substantially increasing the firm's risk exposure. For example, a greater willingness to experiment with graduated payment schemes or with schemes that lengthen loan terms without a major increase in interest rate risk exposure would be in order. In addition, resources should be allocated to an analysis of how foreclosure laws might be amended so that the expected costs of default might be reduced. Such a reduction could help to lower the very high downpayment requirements currently in effect.

As for the supply of mortgage credit, HDFC can best leverage its resources and technical skills by providing these services to other financial institutions on either an equity participation or services contract basis, rather than pursuing projects of a non-financial nature.

(3) The corporate loan program provides substantial benefits to lower-income households. It is both directly profitable for HDFC and linked in important ways to funds mobilization. In the team's view,

HDFC should continue to make this program a key part of the firm's operations; and AID should continue to make corporate loans an eligible use of HG funds. In order to maintain and even expand the low income targeting of the corporate program, HDFC should be more aggressive about recommending to corporate loan applicants that they keep unit size small and design modest in order to house a larger number of workers for a given cost. HDFC technical staff should be involved at the earliest stage of discussion of corporate loans to maximize the chance that their advice will be effective.

Report Outline

The balance of this document consists of four parts, containing a total of seven chapters. The first part provides additional background information, concentrating on the housing finance system in India and HDFC's place within it. Part Two deals with HDFC's record in mobilizing domestic resources in the past and reviews projections for the future growth in the funds available for mortgage lending. This part also examines the extent to which the firm has been effective in altering the "ground rules" under which all housing finance institutions operate to facilitate development of the overall housing finance system. Part Three focuses on the ways HDFC has assisted lower income households — both through individual loans and through the construction of housing for workers by corporations. This part documents the share of loan beneficiaries who have incomes below the median income level for households in urban areas. Finally, Part Four examines two other aspects of HDFC operations: whether HDFC has exercised acceptable procedures to insure that the quality of the housing on which it makes mortgages has been adequate to keep its risk of foreclosure for construction-quality related reasons to a minimum; and the impact on HDFC operations of the technical assistance resources provided to it by AID as part of the Housing Guaranty package.

PART I: BACKGROUND

2. FINANCIAL MARKETS AND HDFC

In order to evaluate the Housing Development Finance Corporation's operations and the effects that the Housing Guaranty Loan might have had on this firm's behavior, some background on the Indian financial sector and the Indian economy warrant discussion. Perhaps the most noteworthy features of the Indian financial situation as they relate to HDFC are: (1) the high degree of centralized government control and presence in the financial markets; and (2) the relatively high savings rate of the economy. The first feature is important for an understanding of the institution's evolution and the somewhat unusual nature of this housing finance institution's structure relative to the kinds of institutions in other countries at similar levels of economic development.[1] It is also important for understanding how the HG loan, through its effects on HDFC, may affect the broader policy process in India. The second feature helps to focus attention on some of the broader economic gains that can be derived from such an institution, as well as the possible limitations on those gains.

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1. Comparisons of economic circumstances across countries are, of course, notoriously difficult to make. Nevertheless, Goldsmith provides some interesting perspectives on this kind of comparison particularly with respect to financial development. For example, he says that "in 1975 India had less than one-half the real national product per head that the U.S. had enjoyed a century earlier; to reach the Indian level of 1975 one has to go back in the U.S. at least to the beginning of the nineteenth century." He also points out that in 1975 the Indian per capita capital stock was 6 percent of the U.S. figure. Raymond Goldsmith, The Financial Development of India, Japan and the U.S., Yale University Press; New Haven, 1983.

Housing Finance and The Capital Markets

HDFC is a hybrid institution. It represents the first Indian private sector firm to attempt to provide financial services for housing purchases. As a "private firm" rather than a financial institution, HDFC faced an array of regulations that were designed to maintain the centralized control over financial flows. For example, to name just one example, HDFC initially could not advertise for deposits because this would in a sense compete with other financial institutions whose interest rates were set administratively. Thus, as will be discussed in Chapters 3 and 4, a good deal of HDFC's activities have gone into three resources related to its hybred nature: (1) identifying the particular "non-competitive" niches in the financial market that it could serve within the strictures placed on it by the regulatory environment; (2) articulating all the non-price benefits that might be associated with its services to both borrowers and investors; and (3) engaging in discussions with regulators as to the efficacy of changes in many regulations.

But more than being a new type of institution, the establishment of HDFC is a break with previous financial policy. It represents a mechanism that responds to consumer demands by relying upon market incentives rather than the centralized control policies that govern allocations of financial resources and lead to the nationalization of the life insurance companies in 1945, the commercial banking system in 1969, and the general insurance companies in 1973.[1] In other words, it

1. Ranjana Madhusudhan, Housing and Housing Finance in India, Washington, D.C., World Bank, Water Supply and Urban Development Dept., Report WUDD 33, 1983.

represents a systematic change from what Goldsmith refers to as "a Soviet-type plan, with primary emphasis on heavy industry, and the achievement of . . . central-government control of the crucial sectors of the economy . . ."[1] Instead of being established as an explicit instrument of government policy that claimed ongoing government expenditures and control, HDFC was established as a private sector institution that would fulfill national housing policy objectives by providing financial services to a wide range of savers. The basic philosophy was that appropriately priced financial services could induce credit flows to the non-luxury housing sector.

A large part of the HDFC experience has in fact been a demonstration to the Government of India (GOI) that such an institution could mobilize resources without subsidies or mandated credit allocations. Thus, for India, HDFC is much more than a new type of financial institution; it is, according to a recent government publication, The Approach to the Seventh Five-Year Plan,[2] a successful example of a way of addressing economic problems. The success of such a venture makes it much more likely that such market-oriented mechanisms will be relied upon in the development of the Indian housing finance system. This is an important gain because a market-oriented approach is likely to be much more economically efficient than the centrally-controlled approach usually followed in India, and recently recommended

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1. Raymond Goldsmith, The Financial Develoment of India 1860-1977, Yale University Press, 1983, p. 145. He says this in describing the second five-year plan. He goes on to say that the fifth plan 1974-78 continued the policies of the second to fourth plans.

2. Government of India, The Approach to The Seventh Plan: Part 1 Overview, June 1984, p. 29.

in a study by The Indian National Institute of Public Finance and Policy of Indian Housing Finance.[1]

The large government presence in the financial markets is also important in understanding why HDFC, unlike housing finance institutions in most other countries, does not rely upon the personal sector for most of its funding. It is usually the case that as a country's financial system develops that the household sector relies upon its own savings to finance its consumption of longer-lived goods. In other words, some households supply the credit other households demand through financial intermediaries.[2] In India, where there has been a rapid growth in financial development -- the ratio of financial assets to GNP more than doubled between 1951 and 1979[3] -- this has not been the case. Outside of HDFC, mortgage credit has been supplied by channeling a small portion of household savings through the public sector, predominantly through the life insurance company's investments in HUDCO and state housing agencies. In the case of HDFC, the major funding source has not been the household sector directly but the corporate sector, and other financial intermediaries.

The reason that mobilization takes this form is that since the early 1960s, the central government has placed large demands on the

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1. D.V. Lall, Housing Finance in India, Delhi: NIPFP, 1984. An interesting discussion of the centralized system in the Lall study is contained in Nasser Munjee's "The Seventh Five Year Plan: Whither Housing Finance," HDFC, Bombay 1985.

2. See Mark Boleant, National Housing Finance Systems, Croom Helm, London 1985. Chapter 2 for a discussion of funding sources across countries.

3. Eleanor Hewitt, India Housing Finance Review, Washington, D.C., The World Bank, Water Supply and Urban Development Dept., September 1984.

credit markets associated providing financing for over 40 percent of total domestic capital formation as well as government deficits. For example, in 1975, more than two-thirds of the assets of the Reserve Bank of India were in government securities, more than 60 percent of the portfolios of life insurance companies and nearly ninety percent of the provident funds were similarly invested.[1]

In contrast, also in 1975, the total institutional indebtedness of the Indian non farm population was about 5 percent of their income. In the U.S. and Japan, on the other hand, such debt exceeded 50 percent of income.[2] In India the government, in effect, uses its authority to determine directly where the household savings will be used. It collects these savings from over 39,000 commercial bank branches and other nationalized intermediaries, and over the first six five-year plans has allocated a declining share to housing.[3] Up through the present, very little household savings has flowed back to the household sector. By giving a higher priority to Government industrialization plans the government constrained households from bidding for credit. Rather than engaging in competition for household funds in its initial years HDFC sopped up the liquidity of the corporate sector. Only after establishing itself as a credible financial institution, that is operating in conformance with national economic objectives, has it been able to garner GOI support for credit allocations from the other

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1. Raymond Goldsmith, The Financial Development of India, Japan and The United States, Yale University Press, 1983, p. 86.
2. Ibid, pp. 93-94, and 211.
3. See Boleant, op. cit., for figures on commercial banks, and Hewitt op. cit. for the allocations to housing.

government-controlled financial institutions that gather most of the personal sector's financial savings.

In summary, an overriding feature of financial intermediation in India is government presence and control. Most interest rates and credit allocations are centrally determined and competition for funds is indirect. Financial intermediation between savers and borrowers is not strictly based on the explicit price of a particular asset as it would be in a free market system. The form and level of savings is governed by the rates that GOI permits on financial instruments. Such rationing of credit flows and returns means that borrowers and lenders engage in what is termed non-price negotiations. For example, a household may agree to save more, or place its savings in a financial asset, such as a deposit, rather than in a real asset, such as gold, because the return on the deposit, plus the promise of access to mortgage credit in the future is higher than the return on alternative investment or consumption opportunities. Similarly, firms may be willing to place funds in an institution at a lower interest rate if their employees can gain access to credit through this institutions. In the latter case the sacrifice in yield on retained earnings is more than offset by the non-salary compensation to employees associated with credit access.

In short, HDFC operates much more like an investment banker that trades on its credibility in the financial markets, than a traditional housing finance institution that just collects small deposits from households and packages them into bigger mortgage loans. A very important feature of its operations is the overall value of services it offers, as well as the credibility that it will indeed be able to provide future services for present deposits. This kind of context suggests that institutional credibility is a very important consideration in resource mobilization.

Because India's financial intermediaries have not been accountable for the risks involved with such intermediation, the government usually has to assure savers that their claims will be honored. Less typically, as is the case of HDFC, the financial structure of the firm has to provide such assurances. As a recent study in The Indian Journal says, the economic costs associated with finanical allocation decisions made in the more typical way are probably very high.[1] We now turn to the possible broader gains that might be associated with increased use of incentive-directed financial intermediation such as HDFC undertakes.

The Importance of the Private Sector Initiative

The Indian savings rate is relatively high and has been increasing. It increased from 15.6 between 1965-1970 to 20.5 percent between 1970-80, to 22.6 percent between during 1980-83. When this relatively high and already rising savings rate is considered, it is obvious that the major general economic gains from improving financial efficiency are not to be derived from increasing the savings rate. The chief gains must come from changing the forms in which savings takes place to better match the size, risks, and maturities sought by savers and borrowers. For example, Keynes statement in 1913 that "India . . . already wastes far too high a proportion of it resources in the needless

1. R.S. Johar, "Determinants of Business Investment in India," Indian Journal of Economics, 1978.

accumulation of precious medals,"[1] seems, at least to some observers, an accurate commentary on Indian wealth holding patterns in more recent.[2]

Such demands for "real" rather than financial assets may well be savers' response to the administratively controlled interest rate on financial assets. If this is so, then one of the major costs of the current financial system is that it does not provide sufficient incentives to households so that they place their savings in the formal financial system. The resulting savings patterns may impose larger than necessary transactions costs on economic activity.

For example, to take a simple illustrative example, Timberg and Aiyar show that the modal informal market interest rate in India is 2 to 8% higher than the formal financial market rate.[3] Since financial assets by 1980 were equal to 103 percent of GNP, each percentage point increase in the share of intermediation that is brought into the formal financial sector will reduce the share of GNP expended on negotiating loans by at least 2 percent and maybe by as much as 8 percent. This implies that each percentage point expansion of the GNP that flows through the formal financial sector can produce at least twice that amount of additional income for the economy. If the HDFC promise of access to mortgage credit can increase the overall return to saving in a financial institution by a sufficient amount the approach may be a more effective means of bringing the savings of the informal sector into the

1. J.M. Keynes, Indian Currency and Finance, Vol. 1, London: Macmillan 1913 pp. 69-70.
2. Goldsmith op. cit. p. 218.
3. Thomas Timberg and C.V. Aiyar, "Informal Credit Markets in India," Economic Development and Cultural Change, October 1984.

formal financial system than is the extensive branching system relied upon by the commercial banks.

The word "can" is underlined in the previous paragraph not only to qualify the potential gains from improved financial efficiency in India, but to stress that it is not just the financial sector that is affected by regulations and restrictions. World Bank Reports, the Shah Report, of the Reserve Bank of India, and Nasser Munjee's Profile on Housing[1] all discuss the deleterious effects of rent control regulations, the Urban Ceilings Land Act, and local development regulations have on the housing market and on lower income groups in that market. Improvements in financial efficiency, by themselves, cannot be expected to offset the effects of all these regulations. Indeed, attempts to use the efficiency gains from increased formal intermediation to offset the costs of these regulations (through, for example, cross-subsidizing borrowers adversely affected by the regulations) may well be perverse if they make the costs of the various regulations less onerous.

Clearly in an economy as large as India's an institution of the size of HDFC, which in the past year made loans that amount to a trivial percent of GNP, does not have large effects on total output or the total transaction costs of intermediation. Nonetheless, if present trends continue this economy will add 70 million more urban dwellers in the next decade; at present it has formal financing for less than 20 percent

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1. See The World Bank Reports cited earlier. Also see William Wheaton, "A Bombay Sector Study in Urban Housing and Land," 1980 A Report prepared for the IBRD. The Shah Report is Finance for Housing Schemes, A Report of The Working Group of The Reserve Bank of India, 1978. Naser Munjee Profile on Housing, Center for Understanding the Economy, Bombay 1982.

of house purchases; and it has housing conditions of deplorable condition.[1] In such a context the potential macro-economic gains from expanding a financially self-sufficient housing finance system may be enormous.

The next chapter concentrates on HDFC's record in mobilizing funds. As a final bit of background for that discussion, the next section of this chapter discusses the specifics of HDFC's lending mechanisms.

HDFC Lending Activity

In 1984 HDFC disbursed about $75 million in mortgage loans; these funds helped in the purchase of 21,278 units. It approved loans for another 26,407 units, with an aggregate value of about $100 million. HDFC had used four major types of housing finance loans: individual, project, group project line of credit, and corporate. These are described in turn below. However, it should be kept in mind that HDFC groups these programs into two major categories, individual ownership and corporate bodies; and these are the groupings used in determining eligible HG disbursements.

Loans to Individual Borrowers. HDFC makes loans to individuals to acquire residential accommodations. The loan amount is based mainly on the creditworthiness of the individual and the value of the dwelling unit, but may not exceed 70 percent of the value. the maximum loan is Rs. 150,000 ($15,000). The repayment period is from five to fifteen years up to the age of 65, or retirement, whichever is earlier. Monthly

1. Hewitt, op. cit. On housing conditions see Wheaton, op. cit., or Lall, op. cit.

repayments generally do not exceed 30 percent of the individual's gross monthly income.

Loans are made for acquisition of apartments which are secured by a mortgage on the underlying apartment, and for the construction and acquisition of individual houses secured by a mortgage of the land and building. The rate of interest is determined by the amount of the loan as follows, ranging from 12.5 to 14.5 percent with larger loans carrying high interest rates.[1]

Group Projects. HDFC also makes loans to registered cooperative societies and associations of apartment owners. In the case of cooperatives, the total loan amount is determined by aggregating the eligible loan amount for which each member is eligible. In the case of apartment associations, each apartment owner actually signs a loan document. As with individuals, the loan-to-value ratio generally does not exceed 70 percent. HDFC has found these loans cumbersome and has made comparatively few in the recent past.

Line of Credit. This program provides housing loans to individuals through their employers. Companies who wish to encourage individual home ownership among their employees can approach HDFC for a line of credit varying from Rs. 500,000 to Rs. 3 million. Two approaches are used:

(1) Line of Credit "through" the Employer. In this case the borrower is the individual employee. Loans follow HDFC's standard norms with a maximum period of repayment of 15 years. The rate of

1. Loans below Rs. 20,000 have a 12.5 percent rate while those above Rs. 100,000 carry a 14.5 percent rate.

interest is from 13.5 to 14.5 percent. The security for the loan is an unconditional and irrevocable guarantee from the employer in addition to a mortgage on the property financed. In most cases employers make some contribution to the payment, thus lowering the effective amortization burden on the employee and enhancing his eligibility for a loan. The employer's guarantee is not terminated if the employee leaves his job during the term of the loan.

(2) Line of Credit "to" the Employer. Under this scheme, HDFC makes loans to companies for on-lending to employees who will own the units. As such, the loan is a direct obligation of the company. The current rate of interest to a company is 13.5 to 14.5 percent with a maximum term of 15 years. Security for the line of credit is a mortgage of fixed assets of the company and/or any other security acceptable to HDFC. The companies generally offer more favorable terms to their employees with respect to amount, period, and rate of interest than those offered to the company by HDFC. These loans are classified as corporate loans in HDFC's accounting.

Corporate Loans. To meet the demand for housing in newly-developing areas and to serve corporations more generally, HDFC has a program whereby it makes loans to corporations for construction of worker housing and related facilities. The property to be financed is owned by the corporation. HDFC exposure in such cases is generally restricted to a maximum of 50 percent of the value of the property; the term is restricted to 3-7 years. The current rate of interest charged is between 14.5 and 16 percent. Security for the loan is a mortgage on the property and/or any other security HDFC may deem necessary.

3. MOBILIZATION BY HDFC

The firm began operations in mid 1978, with the principal equity contributors being the Industrial Credit and Investment Corporation of India (ICICI), the International Finance Corporation (IFC), and the Aga Khan Group. Initial paid up capital was $10 million. The impetus to form HDFC formally came from ICICI, a lending development bank that receives World Bank support. The rest of the shares were taken up by government-owned commercial banks and insurance companies, cooperative banks, private companies and individuals. The timing of initial activities coincided with the publication of The Report of The Working Group on The Banking System, Finance for Housing Schemes.[1] This, like a previous official report -- The Report of The Saraiys Banking Commission -- recommended the establishment not only of a well developed housing finance system, but one that would evolve through private sector initiatives after the government created an enabling policy environment.[2] HDFC is the initial private sector venture into housing finances in India. Prior to its establishment, individuals had little direct access to housing loans.[3]

In June 1984 (the end of the HG001 disbursement period) HDFC had nine branches scattered around the country in addition to its headquarters in Bombay. However, loans have been concentrated in the

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1. Reserve Bank of India, Report of The Working Group on The Banking System, Finance for Housing Schemes, R.C. Shah chairman, 1978.
2. Ibid p. 36.
3. This shortage of housing finance has been documented by The Shah Report as well as a number of World Bank studies. See the citations in Chapter 2.

West and South regions of the country; and funds mobilization has been largely concentrated at corporate headquarters.

Most of HDFC's funding sources are, as suggested in Chapter 2, related to the types of loans it makes. Its deposits are related to access to individual and corporate loans; its access to government-controlled term borrowers is related to the GOI's views on the worthiness of audience served by its individual loans; and its access to the bond market is affected by the GOI's determination that HDFC's mortgages have a fiduciary soundness as well as social utility. Each of these funding sources as well as HDFC's ability to generate fee income and possibly tap the equity markets are discussed in turn. Prior to that discussion, however, we first present a table which identifies HDFC's sources of funds over time.

HDFC's Selected Sources of Funds*
(millions of rupees)

	FY 1980	81	82	83
(1) Current Liabilities	2.72	12.39	12.92	16.55
(2) Long Term Liabilities	38.3	239.3	258.4	506.7
(A) Borrowings		100.0	38.7	234.7
(B) Certificates of Deposit	38.8	139.2	219.3	268.7
(3) Cash Flow from Operations	6.2	11.5	18.2	28.9
(4) Total Sources of Funds	105.7	293.2	327.6	573.9
Long Term Debt as a Share of (4)	.367	.816	.789	.884

*The sources listed do not sum to the total because we have for simplicity ignored minor sources.

Source: A Financial Ratio Analysis prepared for Bertrand Renaud of The World Bank, 1984.

The table makes it clear that HDFC's funding sources are predominately longer-term. In fact, according to HDFC, the average term of its liabilities was 5 1/2 years as of June 30, 1984.

Deposits

In the last chapter we showed that HDFC's primary audience for loans has been individual households, who took down about 70 percent of the loans, followed by corporations with 25 percent. These sources of fund demanders intimately affect HDFC's fund suppliers. For example, at present almost 85 percent of HDFC's deposits, or slightly more than half of its borrowed funds, are the deposits of corporations. These firms, in turn, are induced to make deposits with HDFC in return for the promise of mortgage loans being made available to employees or because of the yield/safety preferences of the deposit. The HDFC deposits have a significantly lower yield than the competing intercorporate loan market, but they are perceived as being much safer as well as yielding a prospective benefit to employees. As of June 1984 the average maturity of deposits was 2 years and the effective interest rate was 10.56 percent.[1] Depending upon the overall composition of the financial arrangement, i.e. depending on the maturity and size of the deposit, HDFC has varied the ratio of housing loans to corporate deposits between three and two to one.

HDFC follows a similar "broader financial package" approach in its efforts to mobilize household deposits. A mortgage loan linked savings scheme has been tried and a plan based upon the German Bausparkassen

1. Source: HDFC, 1985.

program is in the final planning stages. Both schemes, as well as the firm's outreach efforts to small towns, are based on the notion that the advantages to depositors of placing their funds in HDFC are not strictly limited to the return on the deposits. Access to credit for households, the maturity structure of the deposit schemes, and relative safety of return for corporations are important considerations in the portfolio decisions that govern the growth of HDFC deposits.

In the context of the Indian financial system, which relies heavily upon centrally-imposed interest rate ceilings, such non-price competition is not surprising. HDFC attempts to find "niches" in the market in which the whole array of services it provides, not just the explicit return on the deposit, offers the depositor the highest overall return. Thus, the growth of HDFC's deposits relies heavily upon an aggressive outreach program in which the non-price aspects of HDFC services are explained to potential customers. If successful, this type of outreach may have significant effects on the composition of household savings. As discussed in the previous chapter, a significant portion of Indian household savings is accumulated in nonfinancial assets such as precious metals. Non-price features of HDFC deposits may be of significant value in converting these real asset savings into more fungible financial assets. For example, consider the value a household might place on having a loan commitment from a financial institution that will be honored. In India such a reasonable expectation is not as typical as one might think. A number of State home lending institutions have not been able to make good on their commitments to provide mortgage credit.[1] Because the funding for these institutions derives from one financial intermediary a reduction in this intermediary's allocation to housing implies that the agency has to default on its loan commitment to the borrower. Because the borrower has mobilized all their other resources, e.g., land purchase, asset sales, etc., this commitment default can impose high costs on borrowers. Hence, in order to mobilize their own resources to undertake a house purchase, or to have incentive to place their deposits in an institution based on the promise of future credit, households have to have some confidence that the institution will in fact be able to deliver the credit.

Branch managers in each of the three branches visited as well as central office staff are in frequent contact with corporations, societies of corporate employees, and households explaining the advantages of HDFC. In addition, a good deal of staff time (on the order of 15 percent) in branches is spent going to neighboring towns to explain the HDFC "package" and solicit deposits.

The growth of deposits is essential to the firm so that funding sources will be highly diversified. Institutional credibility, market presence, and stability of the institution are the major ingredients in determining investors' confidence that the institution will not only continue to grow, but to grow in such a way that it cannot be rationed

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1. Graham Alder, The Gujarat State Co-operative Housing Finance Society and The Maharashtra Co-operative Housing Finance Society, A Report prepared for USAID Office of Housing and Urban Development, Sept. 1984, shows that defaults on such commitments on loan sanctions have been on the order of 20 to 30 percent.

out of the financial markets. The development of this confidence will in turn largely determine the demand for HDFC deposits.

Because of the intangibility of these factors which affect investor confidence and their self-fulfilling nature, it is difficult to forecast deposit growth. Nevertheless, it is possible to argue and adduce evidence that HDFC's record has been impressive in two respects: (1) establishing itself and explaining the value of its services; and (2) in increasing the breadth of its depositor base so that it can be assured of access to funds. Some of evidence of success is provided by: (A) the IFC projection of a 150 percent increase in the firm's deposit base over the next three years; (B) a $10 million a year deposit made by the liquidity rich Unit Trust of India over each of the past three years; and (C) the 1984 decision of the Reserve Bank of India to permit HDFC to shorten the minimum time period on its deposits from 6 to 3 months. This last step should increase the liquidity of HDFC's deposits by a good deal, and given the rationing that takes place in the financial system the liquidity premium may be very high.

The HG loan did not directly affect HDFC's deposit mobilization efforts as it did affect HDFC term borrowing and bond issue efforts. However, as will be shown, to the extent that the HG loan played a significant role in these other mobilization efforts it also played a sustaining role in HDFC's deposit mobilization efforts. This form of mobilization is important to the firm's long run growth and viability, and it is also important to the efforts to increase formalized savings in India. However, success on these efforts will take time. The institution's credibility and the value of services will not be grasped immediately by the potential audience. Hence, the indirect sustaining support of the HG loan is also important for this funding source.

Term borrowings. HDFC's domestic term borrowings come from: (1) the Reserve Bank of India which provides an allocation level for funds from commercial banks; (2) three different insurance companies; and (3) a loan from the Industrial Credit and Investment Corporation of India. Its international borrowings have been the HG loan and an IFC line of credit. Over the time period of disbursement of the HG001 loan, domestic borrowings increased by $27.4 million. In addition, in the past year the commercial banks have allocated up to $20 million of such loans for HDFC, the Army Group Insurance Company has loaned HDFC $15 million, and other armed services insurance funds have made smaller allocations. The loans made under this funding arrangement generally have a maturity of about 10 years and a 13.25 percent interest rate.

The relatively long maturity of these loans and the lower level of staff effort needed to generate them makes them attractive to HDFC. Perhaps the central operational implication for HDFC of their use is their "lumpiness." For example, in FY 1984 the Reserve Bank of India, because of concerns about commercial bank profitability, allocated no commercial bank funds to HDFC after having allocated $10 million in each of the two previous years. Such variability in fund availability could create obvious problems for a firm with a financial structure like HDFC's if there was a great deal of reliance on a small number of funding sources.

As noted above, there have been encouraging developments towards greater diversification of funding sources. Nevertheless, major increments have not materialized despite GOI endorsement of the need to expand the supply of housing finance[1] and the 1978 Recommendation of the Shah commission that the commercial banks allocate $7.5 million or 5 percent of annual incremental deposits per year to housing.[2] In addition, the Provident Funds, which are one of the fastest growing sectors of the financial system -- growing at more than twice the rate of other financial assets, as well as an institution that should prefer to hold longer term assets -- as of yet makes very little contribution to the supply of mortgage credit. In short, HDFC has made substantial progress in diversifying its funding sources, but there is still substantial room for growth in this area.

The HG loan played a significant role in this area because it permitted HDFC a degree of insulation from the cyclical tightening of international credit conditions that occurred during the period of disbursement. The sharp jump in real interest rates in 1980 created financial problems for many developing countries. By permitting access to the U.S. capital markets at low effective borrowing cost, the HG loan provided services to HDFC much like those provided to savings and loan associations in the U.S. by Federal Home Loan Bank Board (FHLBB) advances during the 1960s and '70s. In the period before interest rate ceilings were eliminated from the U.S. financial system deposit inflow to thrifts quickly dried up whenever interest rates exceeded ceiling-controlled deposit rates. The FHLBB advances, financed by capital

1. The Approach To The Seventh Plan, Government of India, June 1984, p. 29, "The strengthening of the existing institutions like HUDCO and HDFC . . . would be necessary."
2. Shah Report, op. cit. p. 84.

market debentures rather than deposits, provided these rationed depository institutions with an alternative source of funds.

It appears that an analoguous situation applies to the India commercial bank housing credit allocations during the period of the HG loan. Because the commercial banks were suffering something of a profitability squeeze, no allocations of credit to housing at less than the maximum interest rate were made. The HG loan, like the FHLBB advances, allowed the mortgage lending institution to not bear the full brunt of deposit shifts related to general macro economic conditions. Thus, the HG loan permitted HDFC to weather the exigencies of recent financial conditions in better financial condition and at a higher rate of growth than would otherwise have been the case.

The chief drawback of HDFC's term borrowings is the exchange rate risk associated with the initial IFC loan, and the subsequent deterioration in the value of the rupee relative to the dollar for the HG dollar-denominated loan.

Bond Issues. In the last fiscal year HFDC successfully issued its maiden public bond offering of $10 million. The success of the issuance has potentially important implications for the firm's growth and profitability; and it seems very likely that HG001 contributed significantly to this successful venture.

In an interest rate ceiling-constrained financial system, timing is a very important factor in the success of a public debt offering. If market conditions are stringent, it is more difficult to get a full subscription, because the effective implicit market interest rate is much higher than the nominal bond rate. However, if less than full subscription for a maiden offering is obtained, it might well suggest that the market lacks confidence in the offering institution. Having the capacity to wait for a propitious moment for debt issuance may well have long-term consequences for corporate growth. It appears that the HG loan provided such capacity. HDFC received permission from the MOF for a bond issuance without government guarantees in 1982, but waited until 1984 to make the offering. In the event, it was oversubscribed.

In the past year HDFC has issued $4.5 million in private placement bonds and has done some of the analytical groundwork necessary to determine whether bearer bonds might be an effective instrument to tap capital markets. If the GOI were to approve the use of such an instrument it might be used to channel some of the alleged large amounts of black money into the formal financial sector. Such channeling, if it occurs on any significant scale, should also help resource allocation generally.

Other forms of local resource mobilization. HDFC is in the design stages of two particularly innovative ways to mobilize local resources. They are brought up at this point to indicate that the long term direct mobilization goal of $400 million over five years stated in the HG001 Project Paper may have been too narrowly construed.

Simply put, both proposals involve HDFC, along with other financial institutions taking a small equity position in housing finance institutions in locations currently under-served, i.e., rural Gujarat and the eastern area of the country.[1] In the former case the IFC will

1. See Proposal for a New Institution for Housing Finance in Eastern India, A Feasibility Study, HDFC March 1985. A similar study on the Gujarat project also exists.

take an equity position along with HDFC. There is almost no question that the IFC funding -- which appears to be in firm prospect -- would not have been forthcoming without HDFC's participation and promise of technical assistance to the firm. In the latter case, the Unit Trust of India, and ICICI have agreed to participate. This project may help to better integrate the eastern area into national credit markets than did HDFC's branch operations in the area. While it cannot hope to compete in terms of convenience and yield with the extensive existing depository institution or provident fund systems, it can provide the localized underwriting talents that will assure low default and delinquency costs so that funds so mobilized can be used profitably. Ultimately, the success of these programs is an empirical question. It is simply impossible to know before the fact how households in these areas will service their loans. However, HDFC has: (1) leveraged the funding of other large intermediaries into sharing this risk; (2) not exposed HDFC to excessive risks should a project fail; and (3) designed a mechanism that can in principle work it any such mechanism can work.

Finally, in the past year HDFC's stock price increased to above par value for the first time. The fact that earnings have continually risen and planned dividends of 12 percent were met within the forecasted time period has increased the attractiveness of the company's stock. This trend suggests that the company's capital restructuring towards more debt has been favorably received by the market. In other words, it suggests that the expected increase in profitability more than offsets any increase in risk exposure that might be associated with the increased leverage of the firm. The firm's track record on profitability and earnings growth is certainly consistent with this perspective.[1] Finally, the behavior of HDFC's stock price also suggests that the firm's ability to tap the bond markets successfully and to continue to prosper and grow through recent austere financial conditions speaks highly of its future prospects.

In summary, HDFC has clearly accomplished the goals set for it with respect to mobilizing resources, and minimizing the problems associated with the development of a viable financial institution. As for its quantitative accomplishments, at the end of FY 1984, HDFC was more than 150 percent larger than had been projected by the initial IFC Proposed Investment Paper. It was 6 percent larger than the forecast made in the initial Housing Guaranty Project Paper; it had increased its reliance on financing through term borrowings to 40 percent of total borrowings, whereas the initial Project Paper forecast that term borrowings would increase from 34 to 45 percent. (By the end of calendar year 1984 the share of term borrowings had risen to 42 percent.) In the three year period taken to disburse the HG001 loan, it had raised 25 percent more resources in local markets than had been targetted as a desirable achievement level in two years by the initial Project Design Logical Framework.

On the other hand, it does not seem likely that the firm will achieve the longer term goal in the 1981 Project Paper Logical Framework of directly raising $400 million of domestic resources within five years

1. Net income as a percent of equity grew from 6.07% to 10.48%, to 15.39% to 21.71% between FY80 and FY83. Other traditional measures tell a similar story. A very rich source of such comparisons is provided in the study prepared for Bertrand Renaud of The World Bank, op. cit.

of the HG loan disbursement. For example, the most recent (December 1984) IFC balance sheet projections suggest that HDFC will fall approximately 15 percent short of the five year target. One must question, however, whether this goal, which implies an annual growth rate of 40 percent per year for an extended time period, is in the best interests of the firm. While it is clear that the firm can and has grown very rapidly, it is also clear that growth spurts in domestic resource mobilization, such as the 80 percent realized between FY 1983 and FY 1984, should be followed by periods in which such gains are consolidated. This consolidation of gains seems particularly important because of the sources of funds and the context within which HDFC can raise as well as leverage other domestic resources. There is evidence that the firm is still expanding the efficiency with which it mobilizes funds, i.e., the operating expenses to operating income ratio continued to decline throughout the firm's life,[1] suggesting that such rapid growth can be undertaken profitably. Nevertheless, the most recent IFC report of operational strains related to high growth suggests at least a cautionary note in this regard.

Cumulatively, the team views HDFC's local resource mobilization efforts as enormously successful. The firm has diversified the number and type of investors and depositors, and it has continually sought to exploit "niches" in the market that are often created or associated with an interest rate ceiling system. The firm seems particularly well placed to develop the deposit market by reliance on brokers for individual deposits and over time to take advantage of any new

1. Computations from various annual reports.

technologies that emerge in the gathering of deposits. If the firm's growth and development can be sustained for a number of years, it is very likely that HDFC will have made a significant contribution to the development of a system of financial intermediation that the World Bank says will overcome "a serious constraint to housing investment and sectoral efficiency."[1] In the next chapter we discuss how well HDFC has managed the risks associated with its funds mobilization and the policy changes it has pursued to establish the profitability of that mobilization.

1. Situation and Prospects of The Indian Economy - A Medium Term Perspective, Vol. 1, Executive Summary, World Bank, April 1984, p. 27.

4. THE BROADER EFFECTS OF HDFC ACTIONS

In the previous chapter the record on funds mobilization was reviewed. Here the focus is the risks and regulatory impediments involved with that mobilization. In the first section we discuss the five different risks that HDFC confronts; in the second section we review the regulatory issues related to HDFC's efforts "to create a policy environment in which housing sector initiatives can flourish;"[1] and in the third section we discuss the balance of payment aspects of the HG involvement with HDFC.

The Risks of Mortgage Intermediation

HDFC is exposed to five types of risk: default risk by households, interest rate risk, corporate loan risk, commitment or sanction delivery risk, and liquidity risk.[2] Each of those risks and HDFC's approach to dealing with them are treated in turn.

Default Risk. In the Indian legal system foreclosure laws are such that a technical default on mortgage payment may take years to resolve.[3] As a consequence, the expected costs of default are very large. HDFC has clearly avoided this problem. It has done so through: requiring large downpayments by households;[4] requiring guarantees from

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1. See the Shah Report, op cit., p. 36.

2. The institution is also in principle subject to two other kinds of risk: prepayment risk and construction loan risks. However, in the current economic environment these risks are trivial.

3. See Bijlani's Report, H.U. Bijlani, Housing Finance, Mortgage Insurance and Secondary Mortgage Markets, HUDCO Chairman's Paper, 1980, as well as the Shah Report, op. cit.

4. Pradip Shah, op cit. p. 19 says that in 1983 HDFC's loan to cost ratio was .44. Moreover, costs are probably significantly lower than value so even this figure is an overstatement.

other individuals on about 30 percent of the individual loans; providing technical advice to borrowers on adjustments in construction and/or portfolio plans that will permit them to fulfill their aspirations more efficiently; and by convincing state governments that HDFC loans should be eligible for payment through salary deductions.[1]

Their record speaks for itself. On over 76,000 loans they have had no individual loan defaults, and their loans in arrears ratio is .3 percent, lower than those of building societies in the U.K. and considerably lower than U.S. rates. Their record on preventing default is perhaps the chief reason why the IFC appears to be willing to take an equity position in a rural housing finance scheme in Gujarat State.

While the firm has taken the precautions necessary to protect itself from undue exposure to default risk, this protection -- primarily in the form of higher downpayments -- has reduced the ability of lower income households to afford housing. As is discussed in Chapter 5, lower income households are more likely to be adversely affected by high downpayment requirements because the equity required for risk avoidance comes from family members, asset sales, or indigenous money lenders. The interest rates charged by the lenders frequently exceed 25 percent. Because low income households are less likely to have access to assets to sell or family wealth than are higher income households, they are more likely to have to rely upon money-lenders if they purchase

1. State approval is required for the use of the deduction of payments from wages. In 1984 HDFC received approval of its loans as a deductible item. In some areas of the country, Bangalore for example, large portions of payments are made in this way.

a home. However, what is more likely is that the high costs of these funds will reduce the demand for purchase by this group.

It is important to note that HDFC has been attempting to minimize and avoid this kind of risk exposure rather than insure or transform it. In the current legal and regulatory environment, this strategy is appropriate for the firm. However, in order to increase the breadth of households who can and will want to finance housing, improved institutional arrangements for dealing with this kind of risk are necessary. Nevertheless, such improvements are far beyond the scope of resources available to HDFC.[1]

Interest Rate Risk. The firm has carefully structured its assets and liabilities so that there is very little interest rate risk exposure. The difference in the expected weighted average maturities of the firm's assets, 9.3 years, and liabilities, 5.5 years, is about 4 years.[2] In fact, the duration imbalance is even smaller since a number of mortgage loans are being prepaid early.

Not only is there very little imbalance between the maturities of its assets and liabilities, but loan terms also include a fall-back clause that permits HDFC to increase interest rates if it so chooses. This provision is tantamount to giving the firm a catastrophic insurance policy. A shift in the interest rate structure of the sort that had such onerous implications for the U.S. thrift institutions cannot impose

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1. For example, the equity requirements of a direct default or a re-insurer of the default risks of other institutions are significant.

2. Data provided by HDFC. The average maturity of HDFC's assets is inferred from HDFC data which shows the weighted average term of the firm's housing loans to be 11.) years. These assets make up 75 percent of total assets. We assumed that the maturity of other assets was 2 years; hence 9.3 is the overall asset maturity.

similar costs on HDFC as long as it can enforce its contracts. While HDFC does perform some maturity intermediation, and has made it clear that it will not raise rates unless it has to, it nevertheless has contractual protection against large shifts in financial circumstances. Finally, HDFC's corporate loan program has much shorter maturities, 6.25 years, than its individual loans, 13.2 years, so this program helps to reduce overall risk exposure. The following table identifies the various yields and maturities of HDFC's housing assets as of June 30, 1984.

HOUSING LOANS AS AT JUNE 30, 1984

	Value (Rs in Lacs)	Average Interest Rate	Average Term
Individuals	12,514.38	13.29	13.21
Corporate	2,860.64	14.98	6.24
Line of Credit	312.38	13.58	13.21
Cooperatives	326.63	12.27	13.61
Others	102.62	18.00	1.00
Total	16,116.65	13.60	11.90

Source: HDFC

Corporate Risk Exposure. Because HDFC makes loans to corporations and to blocks of employees of particular corporations, the firm is exposed to the same type of risk as would be a commercial bank that lent to corporate borrowers. The team reviewed HDFC's decision-making process for such loans and found that each firm's balance sheet and prospects are closely reviewed as part of the loan decision. The team sees these practices as effective. HDFC's central office makes a careful review of the income statements and balance sheets of the company in question. One might also expect that as the firm expands this type of risk will be increasingly diversified across economic activity.

Sanction Risk Exposure. By agreeing to make credit available if a household can get the other necessary resources together, HDFC also affects the construction of housing of those who ultimately do not make use of the commitment. Because a household knows that a certain amount of funds will be available if it liquidates other assets, borrows from parents, buys land, etc., it may be willing to undertake these actions even if in the end it does not use HDFC funds. HDFC staff estimate that about 7 percent of their loan sanctions are not disbursed, and that about half of these cancelled sanctions occur because the household got money elsewhere.

HDFC has minimized its risk exposure in this area in three ways: (1) reducing the ratio of sanctions to disbursements from 2.56 to 1.29 over five years; (2) leaving its commitment open-ended as to the interest rate it will charge; and, (3) diversifying its depositors and investors so that rationing decisions by another financial institution or government regulator have less effect on its ability to deliver on its agreement.

Liquidity Risk. Any leveraged financial institution with liabilities that are of shorter-term than its assets is subject to the risk that its liabilities will be called, and that it will not have on hand sufficient capital available to satisfy all the demanders of funds. In the U.S. and the Indian commercial banking system, this risk is dealt with through deposit insurance, and by maintaining liquid reserves. HDFC does not have such deposit insurance and over time its liquid reserves have declined slightly.[1] However, HDFC deals with liquidity risk by having what amounts to lines of credit with other large financial intermediaries. It has established such lines of credit with the Unit Trust of India that effectively give the institution "deep pockets." In addition, HDFC deposits are not available on demand; they have had until recently six-month minimum maturities, and average maturities of 2 1/2 years. It might also be noted that the IFC investment carries a covenant restriction that no fresh indebtedness should occur if the interest coverage falls below 1.2. This restriction means that HDFC's interest earnings must always exceed its interest obligations by at least 20 percent, or it has to avoid more indebtedness until this ratio is realized. With a gently upward sloping term structure of interest rates, this covenant will help avoid liquidity problems as long as it is viewed as a minimum target rather than a figure to maximize.[2] Finally, in the current stable interest rate environment of the Indian economy liquidity risk is not great. There is little incentive for "hot money" or interest sensitivity on the part of depositors. As a consequence, there is little likelihood of runs on the institution as long as other risks are thought to be managed effectively.

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1. HDFC's liquid reserves as a percent of deposits has followed this pattern: FY80, 10.7%, FY81 43.4%, FY82 12.0%, FY83 4.9%.

2. The latter type of strategy could expose the institution to interest rate risk because the return on longer term assets would be greater than on shorter term loans.

In sum, HDFC has clearly moved aggressively into housing finance intermediation. Equally clear is the cautiousness of the institution. Under present operating practices it is subject to very little interest rate risk exposure. Furthermore, its debt to equity ratio, 11.8 as of June 30, 1984[1] is much lower than those thought prudent for U.S. financial institutions that have been much more risk exposed, and lower, that those of building societies in the U.K. that appear to have slightly more credit risk and slightly less interest rate risk.[2] It has reduced its sanction risk and dealt with its liquidity and corporate loan risks in a practical, effective manner. Default risk will always be a concern because of the possibility of simultaneous occurrence. Nevertheless, the firm's efforts of this score have been exemplary.

Regulatory Issues and HDFC

The realization of HDFC's financial record, as well as the development in India of a regulatory environment in which spontaneous development of a market-oriented housing finance system can occur, is in large part attributable to the firm's regulatory entrepreneurism. As the first institution of this sort in India, i.e., neither a bank nor a non-financial firm, HDFC has had to seek modifications to a number of regulations that constrained its operations. For example, to mention just some of the more important regulatory changes HDFC has been involved in: initially HDFC could not advertise for deposits; its

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1. IFC Report op. cit. p. 9. HDFC's debt to equity has risen from 2.8 in FY81 to 4.6 in FY82 to 7.5 in FY83 to 11.8 in FY84. The IFC has a covenant restricting HDFC's debt to equity ratio to 15:1. This ratio compares to a 25:1 ratio for savings and loan associations in the U.S.
2. See Boleat, op. cit.

deposits had to be of at least six month maturity; the tax treatment of the deposits was more onerous than that on commercial bank deposits; trust funds could not make such deposits, and after they were permitted to do so their tax treatment was still onerous; provident fund savings could be used for housing payments but not HDFC mortgage payments; mortgage payments could not be deducted from the salaries of many workers by employers; the firm's eligibility to receive fund allocations from other large financial intermediaries, e.g., commercial banks, had yet to be determined, and once such determinations of eligibility are made the amount of allocation must still be decided upon.

The list could be extended and a chronology of changes could be developed. However, the point is not that there are an obvious set of regulations that need to and can easily be changed. Regulatory change does not take place in a vacuum. The effects of changes in overall economic conditions on existing regulatory burdens, as well as the effects of suggested regulatory changes on other actors in the financial markets must be anticipated and analyzed in what one U.S. observer recently referred to as "a regulatory dialectic."[1]

In order for this process to produce change, the proponents of change must be credible. The chairman and the principal staff are highly regarded by both the Indian financial and regulatory community, as well as by World Bank and IFC staff. Their intellectual credibility and the basically strong case that they have for general regulatory reform enable them to argue effectively on broad economic efficiency

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1. Edward Kane, "Change in Contemporary Mortgage Markets" Housing Finance Review, July 1984.

terms rather than to be seen as proponents of strictly their own self-interest.

A good deal of HDFC principal staff time (on the order of 15 percent) has gone into this regulatory dialectic, i.e., into the development and marketing or proposals and recommendations for regulatory changes. All the above mentioned regulations have been changed or modified as a result of HDFC staff and Board efforts. Furthermore, while this kind of staff expenditure does not seem inordinate, it has been very effective due to the credibility of HDFC staff.

For example, in one of the Chairman's previous capacities he was aware of a modification made to the Indian Trust Act of 1882 that enabled the Indian Unit Trust to avoid a bout of disintermediation. He used this experience to propose HDFC as the second private sector exception to this act, making it eligible for trustee status for charitable trusts. Achieving this status has not only permitted charitable trusts to invest in HDFC, it as well gives the firm the equivalent of what would be an AAA credit rating in the U.S. system. In a financial system that does not have explicit credit ratings, this type of implicit rating can usually only be established by a long, successful history or government fiat. In the HDFC case it has been accomplished with a short, successful history and government confidence in the firm's fiduciary soundness and social utility. Finally, the achievement of this kind of rating that makes it much less likely that the institution can be rationed out of access to funds.

HDFC's regulatory entrepreneurism also plays a large role in the firm's allocations of commercial bank funds. As noted earlier, in 1978 the Shah Commission recommended that the commercial banking system could play an important role in the development of the housing finance system. As a result of this study the RBI called on the banks to allocate $100 million to housing finance of which HDFC was to receive $5 million. due to time constraints HDFC was able to utilize only $4.4 million of such loans. The following year RBI allocated another $150 million of which HDFC was to receive $10 million. The firm made use of the full $10 million, and in the next fiscal year drew down $10 million more out of the rest of $140 million that was left over from the previous year. In the most recent fiscal year, HDFC received RBI authority for another $20 million of the still unused portion of the initial $150 million allocation. Ultimately, HDFC was able to obtain over $40 million of the $150 million allocation through persistent lobbying and aggressive pursuit of the unused portions of the allocations. This kind of loan take down and accompanying housing construction activity stands in contrast to some of the public agency projects described by the Shah Report.[1] According to that report, despite India's extreme shortage of housing, it was often the case that publicly built housing went undemanded after construction.

The same kind of situation seems to apply to the commercial bank allocation. Although 16 state housing agencies that had almost ten times the portfolio size of HDFC were also eligible for the bank's allocation, the firm was able to use almost 30 percent of the

1. Op. cit.

allocation. This pattern suggests that while households may demand mortgage credit and the RBI is willing to supply it to intermediaries, outside of HDFC, the existing intermediaries have not brought demanders and suppliers of funds together.

In sum, regulatory change, and the apparent shift in financial allocational emphasis towards more housing credit, has helped to establish ground rules to enable the private sector to become interested in housing finance services. However, it must be noted that this demand is in its nascent stages. As noted in the previous chapter, HDFC stock has only recently sold for more than par value. Following this, two firms have recently been listed on the Bombay stock exchange to engage in such activities. One of the newly listed firms is a diversified financial services firm with over 150 branch offices.

Thus, HDFC can expect increasing competition for the funds allocated by large financial intermediaries. In the future it will not just compete with public sector firms who appear to pursue housing credit allocations somewhat recalcitrantly. However, given the GOI's recent pronouncements on the need to expand such allocations, and the figures that show that prior allocations to the household sector have been niggardly, it seems likely that the supply of funds should expand, at least in the immediate future, at least as rapidly as the increase in competing demands.

We now turn to the last element of HDFC's funding sources -- its international borrowing.

The HG Loan and HDFC's International Borrowing

The final funding source for HDFC's operations has come from international investors: the HG loans of $30 million and a $4 million loan from the IFC. Because of the sharp deterioration in the value of the rupee relative to the dollar since 1981 there is some question of who has borne this risk and whether, in fact, this is an appropriate risk to take.

In the case of the IFC dollar-denominated loan, HDFC has borne the exchange rate risk and, as we discuss below, it is not at all clear that the risk-allocation was appropriate. In the case of the HG loans, the State Bank of India (SBI) was the loan guarantor. SBI used the dollar loan for its own foreign exchange needs. In fact, according to HDFC staff, SBI on-lent in dollars to other borrowers so that the exchange rate risk was not borne by the financial institution. SBI made long-term fixed-rate rupee loans to HDFC. Thus, in a narrow sense, with the HDFC-SBI swap, risks are being allocated effectively. The institution that is financing domestic assets, HDFC, has domestic liabilities, and the institution with international assets and liabilities has intermediated in the international markets. With the IFC loan, on the other hand, this kind of matching of risks was not followed, and HDFC's 10 percent nominal interest has been effectively much higher.

There is, however, also a larger question that arises because of the international debt repayment problems that have been experienced in recent years. And from AID's perspective this question can be usefully divided into two parts:

1. How good is the guarantor's guarantee? and

2. Do these funds alleviate or exacerbate India's ability to service its international borrowings?

The first question is a provincial as to whether this is a reasonable risk for AID to be taking in light of the expected contingent liability associated with the HG guaranty. The second question is a general one of how the support for this project fit into the overall Indian economy activity with respect to two factors: (a) does it help stimulate economic development in India? and (b) does it affect the country's ability to service its foreign debt? In other words, does increasing its international borrowings in this way affect the soundness of guarantor's guarantee? We have then three questions:

1. How good is the guarantor's guarantee?

The guarantor's guarantee must be thought of as of high quality. It is true that the World Bank forecasts that "Based on current trends a gap will emerge around 1987 between capital requirements and estimated availability."[1] However, on the other side of the ledger, Indian international borrowing strategy has always been conservative so that India at the end of 1983 had only $2 billion in debt to banks outstanding, ranking it 32nd of the seventy nine developing countries.[2] In addition, according to World Bank analysis, a prime source of India's borrowing problems is a cutback in concession lending. The HG terms are superior to commercial replacements for the

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1. World Bank, "Situation and Prospects. . .," op. cit., p. 11.
2. Even this ranking understates the soundness of India's relative status given the size of the Indian economy relative to those of other developing countries. The data on developing countries' debt comes from International Capital Markets, Developments and Prospects 1984, The International Monetary Fund Occasional Paper, No. 31, p. 89.

declining availability of concession credit. Thus, they should help India fill the "gap" identified in the World Bank analysis.

2. Does the HG loan stimulate economic development in India?

In an absolute sense, the answer is clearly yes. In a relative sense, i.e., compared to alternative investments that could be made, the question, for very practical reasons, is best answered by the GOI. Since they have approved the guarantying of the loan by Indian commercial banks, one must presume that the answer is also affirmative. The World Bank's position seems to be in agreement. Their analysis says "India will need external capital inflows to augment its own resources for the foreseeable future, given the low per capita income levels. . .; the already high savings rate, and the import requirements associated with somewhat improved growth rates."[1]

3. Does the HG loan affect the quality of the country's guarantee?

The answer is no. The $30 million loan is equal to 0.3 of one percent of exports in 1983-84 and hence, cannot be expected to exert much of an influence on foreign exchange rates one way or the other.

In sum, it seems that the possible adverse foreign exchange effects of the HG loan have been managed effectively; that the Indian government believed that the exchange rate risk was worth taking and that while India may confront some medium-term international borrowing problem, it is nevertheless in relatively good shape in this regard. Furthermore, because the HG instrument provides an efficient, cost-effective means of tapping the international capital markets, the HG loan should help improve rather than exacerbate India's debt problems.[2]

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1. World Bank, "Situation and Prospects. . .," op. cit., p. 11.
2. For a discussion of the efficacy of the HG loan as a capital market instrument, see Robert Buckley and Raymond Struyk, "An Economic Analysis of the AID Housing Guaranty," The Urban Institute, February 1985.

PART III: LOW INCOME BENEFICIARIES

One of HDFC's objectives as a firm is to make housing finance available to people at various income levels. AID's goals are even more explicit. Constrained by legislation to serve only households below median income, AID made a goal of the HG001 loan that one-third of the beneficiaries of HDFC programs should have incomes below median.

HDFC has two basic types of programs from the point of view of beneficiaries: homeownership loans to individuals and loans to corporations to build company-owned housing for workers. At the start of HG001, AID was not certain whether HDFC's individual loan programs would be able to reach below median income households; so the focus was on the corporate loan program as the means of fulfilling the income targetting goals. As it turned out during the use of the first tranche of HG001, both individual and corporate loans reached some lower income households.

As a condition for releasing the second tranche of HG001, AID required HDFC to issue a low income policy statement and implementation plan, enumerating a series of actions the firm would take to increase its efforts to reach lower income households. This plan focused on the individual loan program. Nonetheless, the corporate program remains an important vehicle for HDFC's reaching lower income households. Of the HDFC loan amounts declared eligible for disbursement of HG001 funds, 44 percent were for corporate loans.

Chapter 5 reviews HDFC's overall record in reaching lower income households through both the individual and the corporate loan programs.

It then discusses the low income policy and plan, assessing both the progress HDFC has made in implementing the plan and the prospects for various approaches to increasing the availability of housing for the lower income through HDFC programs.

Chapter 6 is a more detailed review of the corporate loan program, examining such issues as the nature of the housing benefits for lower income workers, the relationship between company-owned housing and homeownership opportunities for workers, the corporate program's role in supporting industrial dispersal, and the prospects for continued growth of the corporate program.

5. LOW INCOME BENEFICIARIES: THE OVERALL RECORD

Targeting by Type of Loan

Individual Loans

HDFC makes three types of homeownership loans to individuals through programs called individual, line-of-credit and group loans. From the point of view of income targeting, the distinctions among the three types of loans are not important. In the line-of-credit program, a corporation or other institution guarantees the individual's repayment to HDFC, but the underwriting standards are the same as for other individual loans. Group loans are made to homebuyers who have formed an association to build an apartment building. Again, the underwriting standards applied to borrowers are the same as for the individual loan program. Line-of-credit and group loans together accounted for only 6 percent of HDFC's cumulative business (in both dwelling units and amount loaned) as of 1984. They are not separated from other individual loans in HDFC's records and there is no reason to believe income levels in these two programs differ in any systematic way from income levels for other individual loans.

HDFC maintains information on the income of borrowers as of the time a loan is sanctioned or approved. Incomes of both husband and wife are recorded. Other family members' income is included only in the case of co-borrowers. This information is tabulated periodically in regular management reports, prepared for use at HDFC board meetings. Since these reports have been quite uniform in format and definitions, they can be used to identify income levels of individual loan recipients during the HG001 period.

At the time HG001 was approved, AID estimated that urban median income in India was 1,200 Rs./mo. and that figure was agreed upon for determining whether an HDFC loan was an eligible use of HG funds.[1] Table 5.1 is based on the HDFC board reports for the beginning and end of the HG001 period (July 1981 through June 1984) and shows the distribution of units by income level for loans sanctioned during that period. Because HDFC's income categories do not include 1,200 Rs./mo., the team has assumed that loans to households between 1,000 and 2,000 Rs./mo. are evenly distributed.[2] Thus, we estimate that 17 percent of loans sanctioned during the HG001 period were for households below median income.

This estimate is confirmed by a file search conducted by AID staff in early 1984, which concluded that 18 percent of loans sanctioned during the period December 1982 - December 1983 were to households below 1,200 Rs./mo.[3]

A possible weakness in these estimates is that they are based on loans sanctioned, not loans actually disbursed. Some households drop out between HDFC's approval of the loan and its actual disbursal. It appears, however, that the proportion of lower income beneficiaries of HDFC individual loans does not change substantially between the sanction

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1. See Annex C, Note on Estimation of Median Household Income.

2. A more detailed analysis of income levels for loans sanctioned in April 1983 suggests that this is a reasonable assumption. Office of Housing and Urban Programs. Project Paper: India - Private Sector Housing Finance Program (Second Phase), 386-HG-001, 1983, p. 17.

3. Helene Kaufman, Socio-economic Analysis of HDFC's Low Income Beneficiaries, March 1984, p. 15.

TABLE 5.1

INCOME LEVELS OF INDIVIDUAL LOAN BENEFICIARIES (JULY 1981 - JUNE 1984)

	Number of Units	Percent of Units
below 1,000 Rs./mo.	3,730	9
(below 1,200 Rs./mo.)	(7,150)	(17)
1,001-2,000 Rs./mo.	17,099	40
2,001-3,000 Rs./mo.	12,467	29
3,000+	9,671	22
Totals	43,057	100

Source: HDFC, "Management Report: Operations as at June 30, 1981" and "Management Report: Operations as on June 30, 1984."

and disbursement stages. If some households drop out because they cannot in the end afford to buy a house, others never draw their HDFC loan because their other sources of funds are sufficient without the HDFC loan. HDFC calculations of the percentage of loan funds sanctioned to households below 1,470 Rs./mo. in July 1983 - June 1984 (14 percent) and disbursed to households below 1,400 Rs./mo. during July - September 1984 (15 percent) suggest there is little net change in income levels as a result of dropouts.[1]

During the HG001 period, HDFC used very broad categories for reporting incomes of borrowers, with no disaggregation below 1,000 Rs./mo. The only source of information on how far below median income the individual loan program was able to reach is the study conducted by AID staff based on loan sanction files for the period December 1982 - December 1983. Table 5.2 is based on that report.[2]

It is clearly very difficult for HDFC to reach households with incomes below 800 Rs./mo. This is not surprising, given a simple calculation of the affordability of the most basic unit with durable construction and indoor sanitary facilities. At about 1,000 Rs. per sq. m.,[3]

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1. HDFC, "Note on Trends in Key Lending Indicators," February 12, 1985, and "Study of Individual Disbursements."

2. Kaufman, op. cit. This study also provides more information on demographic and occupational characteristics of low income HDFC borrowers, as does PADCO, A Socio-economic Analysis of HDFC Low-Income Loan Applicants in Bombay and Bangalore, Washington, D.C., February 1983.

3. This is an average cost per sq. m. for the corporate program in 1984, which is considerably lower than the average cost for the individual program, partly because the average includes fewer houses with above minimum amenities. It also, however, sometimes does not include land costs and other in-kind contributions by the corporation. Thus, if anything, this may understate a minimum possible cost to an individual homebuyer. The average cost per sq. m. in the individual loan program in 1984 was Rs. 1,600 and the cumulative average as of 1984 was Rs. 1,350.

TABLE 5.2

PERCENTAGE DISTRIBUTION OF LOW INCOME BENEFICIARIES IN THE INDIVIDUAL LOAN PROGRAM, DECEMBER 1982 - DECEMBER 1983

Income Rs./mo.	Bombay	Dadar	All Other	Total
1,001 - 1,200	47	55	42	44
801 - 1,000	47	36	39	40
601-800	3	9	16	13
600 or less	3	0	3	3
Totals	100	100	100	100

Source: Helene Kaufman, Socio-Economic Analysis of HDFC's Low Income Beneficiaries, March 1984, p. 21.

a 35 sq. m. dwelling (about 350 sq. ft.: one or two small rooms plus kitchen, stoop toilet and bath stall) costs 35,000 Rs. To carry a mortgage of 70 percent of that cost or 24,500 Rs. at 13.5 percent for 15 years (HDFC standard terms for loans between Rs. 20,000 and Rs. 50,000) a family paying 25 percent of income would need an income of 1,272 Rs./mo., or 1,060 Rs./mo. if paying 30 percent of income. A family with an income of 800 Rs./mo. paying 30 percent of income would be able to carry an HDFC loan of Rs. 19,500 (at 12.5 percent for 15 years) and would need to make a downpayment of Rs. 15,500 or 44 percent of the value of the house.

Outside of the particularly high cost Bombay/Dadar area, the percentage of loans made to families with incomes below 800 Rs./mo. was somewhat higher (19 percent, compared with 6 percent for Bombay and 9 for Dadar).

The percentage of HDFC borrowers with incomes below 1,000 Rs./mo. declined over the HG001 period, from 13 percent in FY 1980-1981 (the year preceding the HG001 loan) to 8 percent in FY 1983-1984. (However, given the overall increase in HDFC volume, the number of loans to lower income households increased, from 989 to 1,498.)[1] Because of concerns about whether the low income targeting of the HDFC individual loan program was weakening, HDFC did a special analysis in early 1985, attempting to control for inflation in incomes. Using the Consumer Price Index developed by the Centre for Monitoring the Indian Economy,

1. HDFC, "Management Report: Operations as at June 30, 1981" and "Management Report: Operations as at June 30, 1984." As noted above, HDFC did not use the HG001 definition of 1,200 Rs./mo. for reporting purposes.

HDFC established an income figure for 1984 comparable to 1,000 Rs./mo. in 1980. Using this new income figure (1,470 Rs./mo.) as the basis for analyzing 1984 loan sanctions, the report concluded that loans to households below 1,000 Rs./mo. represented 14 percent of total rupees loaned to individuals in both 1980 and 1984.[1] This also implies that if low income households are defined using 1,470 Rs./mo. in 1984, the percentage of units financed for low income households has also remained constant.[2] The HDFC special analysis also indicated that average cost per unit remained about the same in constant rupee terms during the three fiscal years of the HG001 loan. A more reliable indicator that low income targeting of the individual loan program is not weakening may be unit size. Again, HDFC's standard reporting categories do not include a size category as small as might be useful. However, 50 sq. m. is a fairly modest size (about 500 sq. ft.). The percentage of units below 50 sq. m. started at 36 percent in the year just before the HG001 period and increased to 41 percent in FY 1984.[3]

The team concludes that in its individual loan programs HDFC achieved a realistic amount of targeting to households with incomes below 1,200 Rs./mo. during the HG001 period. Efforts to sustain and make modest improvements on that record of income targeting should continue. Further discussion about the nature of those efforts will be found later in this chapter.

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1. HDFC, "Note on Trends in Key Lending Indicators," February 12, 1985.

2. This would not be the case only if loan amounts per low income average household have increased relative to loan amounts to higher income households.

3. HDFC, "Management Report: Operations as at June 30, 1981," and "Management Report: Operations as on June 30, 1984."

Corporate Loans

HDFC's management reports provide information on income levels of households who will occupy housing produced under corporate loans. Unlike the information on individual loans, however, this is not based on actual income data collected on a household-by-household basis, but on information supplied by the corporation on the salary levels of the workers for whom the housing is being built. HDFC staff use this data to calculate rough estimates of the number of units for households within their standard reporting categories (up to 1,000 Rs./mo., 1,001-2,000, etc.). Table 5.3 is based on these management reports and shows the distribution of incomes for corporate loans sanctioned during the HG001 period. Again, the team has assumed that incomes are evenly distributed between 1,000 and 2,000 Rs./mo. and concludes that 79 percent of corporate program housing units were for workers with incomes below 1,200 Rs./mo.

The team made a detailed review of AID's files on the corporate projects approved as eligible for use of HG001 loan funds. It appears that HDFC asked AID to approve for HG funding virtually all corporate projects on which HDFC funds were disbursed during the HG001 period.[1] These projects were submitted to the AID Regional Housing Office (RHUDO), which often approved only a portion of the units -- and corresponding dollars -- for each project, based on the salary schedule

1. This included loans sanctioned by HDFC before June 1981 but not disbursed until after that date, so information from the RHUDO files does not precisely correspond with information in Table 4.3, from which sanctions prior to July 1981 have been netted out.

TABLE 5.3

INCOME LEVELS OF CORPORATE LOAN BENEFICIARIES (JULY 1981 - JUNE 1984)

	Number of Units	Percent of Units
below 1,000 Rs./mo.	9,042	76
(below 1,200 Rs./mo.)	(9,396)	(79)
1,001-2,000 Rs./mo.	1,770	15
2,001-3,000 Rs./mo.	660	6
3,000+	367	3
Totals	11,839	100

Source: HDFC "Management Report: Operations as at June 30, 1981" and "Management Report: Operations as on June 30, 1984."

supplied by the corporations, together with confirmatory information such as size and cost of the proposed units.

The file review confirmed that roughly 80 percent of the units planned under HDFC's corporate program were for workers with salaries under 1,200 Rs./mo. The team also visited several corporate projects and found that the types of workers for whom the housing had been planned were indeed living there.

Because of the varied nature of the salary categories reported in applications for corporate housing loans, it is difficult to determine an income distribution for low income beneficiaries of HDFC's corporate loan program. Table 5.4 gives a rough picture of income levels by providing upper and lower bounds. Column A shows the percentage of units all of which are for workers below certain income cut-offs, while column B shows the percentage of units which include some occupants below the specified cut-offs. The table excludes projects for which there was no salary information supplied. These were mainly tea plantations and mining operations, believed to have very low salary scales compared with the other types of industries represented in the table, so the table overstates the salary levels of the occupants of all HDFC-financed corporate housing.

According to the figures in Table 5.4, at least 25 percent of the units in the corporate loan program were planned for workers with salaries below 800 Rs./mo., while no more than 22 percent were exclusively for workers in the 1,000 - 1,200 Rs./mo. category. Comparing these figures with Table 5.2, it appears that the corporate program is able to reach poorer households than the individual loan

TABLE 5.4

SALARIES OF OCCUPANTS OF CORPORATE-OWNED
HOUSING ELIGIBLE FOR HG001

Salary Range	BA Percent Units for Which Highest Salaried Occupants Are Within Range	Percent Units for Which Lowest Salaried Occupants Are Within Range
1,000 - 1,200	39	22
800 - 999	36	25
600 - 799	12	39
below 600	13	14
Totals	100	100

Excludes tea plantations and some mines. These comprise a large number of units which are almost certainly in the lower salary ranges (many below 600 Rs./mo.), but for which salary data were not available.

Source: RHUDO files of HDFC corporate housing loans.

program. A couple of caveats are in order, however. One is that these are single-worker salaries, while the income figures based on underwriting information for HDFC individual loans often include salaries of both husband and wife. Another caveat is that industrial workers' salaries may be increasing faster than other incomes in India, so that the incomes of the beneficiaries of corporate workers housing may be higher relative to individual HDFC low income borrowers than is suggested by information collected at the time of the original loan application.

The percentage of units financed by corporate loans and intended for workers with salaries below 1,000 Rs./mo. did not decline during the HG001 period, but actually increased, from 64 percent in the year just preceding the HG001 period to 87 percent in FY 1984.[1] Unlike the incomes for individual loan recipients, these figures can be heavily influenced in any one year by a large single project intended for low salaried workers. In addition, since corporations rarely recover the full costs of the housing from its occupants, rising land and construction costs are not as likely to be reflected in the income targeting of corporate worker housing as they are in the individual loan program.

As in the individual loan program, unit size is a reasonably good proxy for the targeting of corporate worker Housing. During the HG001 period, 72 percent of corporate financed units were under 50 sq. m.[2] and the average size of corporate units was 49 sq. m. in 1982, 56 in 1983

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1. HDFC, "Management Report: Operations as at June 30, 1981" and "Management Report: Operations as on June 30, 1984."
2. Ibid.

and 42 in 1984.[1] Table 5.5 shows a percentage distribution of the size of those corporate units declared eligible for HG001 funds. As in the case of income figures, this table excludes most tea plantation and mine workers' units and, therefore, probably over-estimates the typical size of Housing financed under the corporate program. Even so, 56 percent of the units are below 40 sq. m. in size.

The team concludes that the corporate loan program is heavily targeted to workers whose salaries at the time of project planning were below 1,200 Rs./mo. and that AID has done a reasonable job of excluding from HG eligibility corporate housing intended for higher salaried employees.

Income Targeting and the HG001 Goal

Combining the individual loan program and the corporate loan program, approximately 30 percent of the beneficiaries of HDFC housing finance programs had incomes below 1,200 Rs./mo. at the time the loans were sanctioned.[2] The team's finding is that HDFC's record represents effective achievement of the HG001 goal that approximately one-third of households benefitting from HDFC loans have incomes below 1,200 Rs./mo.

However, the team recommends that HDFC make a modest change to its computerized data systems so that in the future continuous information on the income levels of sanctioned loans is preserved. This would not only ease AID monitoring of the income levels of HDFC beneficiaries, but

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1. HDFC, "Average Loan Profile (Corporate Ownership)," December 3, 1985.

2. HDFC, "Management Report: Operations as at June 30, 1981," and "Management Report: Operations as on June 30, 1984."

TABLE 5.5

SIZES OF CORPORATE-OWNED HOUSING UNITS ELIGIBLE FOR HG001

Sq. Meters	Percent of Units
Over 100	1
90-99	1
80-89	1
70-79	3
60-69	5
50-59	5
40-49	28
30-39	47
20-29*	7
10-19*	2
	100

average size = 42.5 sq. m.

* Some number of units below 29 sq. m., possibly one-third, are barracks for workmen unaccompanied by families.

Source: RHUDO files of HDFC corporate housing loans.

would also enable HDFC to analyze better the results of its various efforts to reach lower income households.

On the corporate side, the team found considerable missing data on income levels of the intended occupants of worker housing. While both HDFC and RHUDO made reasonable judgments as to the probable income levels of workers to be housed through these loans, HDFC should be more insistent that companies applying for loans supply salary information, perhaps within standard categories small enough to permit analysis of trends (e.g., below 600 Rs./mo., 600-800, 800-1,000, etc.).

Low Income Policy and Plan

The Implementation Agreement for the first tranche (phase I) of the HG001 loan called for HDFC to "adopt a policy statement outlining its intentions regarding the promotion and financing of progressively lower income housing in India." Further, as a "condition precedent" to releasing the second tranche of HG001, AID required HDFC to develop an action plan for the implementation of its low income policy. AID's increasing concern was linked in particular to the "slow but steady trend upward" in the income levels of loan recipients in the individual loan program.[1]

HDFC adopted a "Policy Statement on Low Income Housing Finance" on April 12, 1983, and an "Action Plan for Implementation of Low Income Housing Policy Statement" in September 1983.[2]

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1. Office of Housing and Urban Programs, Project Paper: India - Private Sector Housing Finance Program (Second Phase). 386-HG-001, June 1983, pp. 2-5 and 18-22.

2. Ibid., Annex E and Office of Housing and Urban Programs, Project Paper: India - Private Housing Finance for Low-Income Families. 385-HG-002, May 1984, Annex 5B.

The Action Plan was a mixture of general proposals for altering or enhancing the way HDFC does business and special projects intended for specific groups of lower income beneficiaries. Table 5.6 groups these proposed actions and indicates specific implementation goals when they were stated.

While we will review the status of the various proposals included in HDFC's low income policy and plan, the team's most important overall finding is that HDFC considers lower income borrowers a key market for the firm and vigorously pursues making loans to homebuyers of modest means as an integral part of its daily business.

Standard Practices

HDFC's approach to attempting to reach a broad range of income levels, including a substantial number of those below median income, has been to try through its loan processing practices to overcome barriers to qualifying lower income applicants for loans. This is done to the extent feasible within the standard structure and underwriting rules established for the individual loan program. HDFC's standard loan terms include an indirect cross-subsidization of lower income borrowers through its schedule of interest rates for loans at different amounts. Borrowers of less than Rs. 20,000 usually have incomes below 1,200 Rs./mo. and are charged 12.5 percent, slightly below HDFC's marginal borrowing rate of about 13.3 percent. HDFC outreach to potential borrowers includes considerable emphasis on groups likely to include lower income people -- factory workers, low paid public employees such as school teachers and postal workers, and residents of smaller towns within the region covered by each HDFC branch office. There has been a

TABLE 3.6

SUMMARY OF LOW INCOME POLICY AND ACTION PLAN

General Proposals	Implementation Plans
1. Altering mortgage terms	
a. step-up repayment plan	not stated
b. increase loan term beyond 15 years	not stated
c. lower rate of interest	not stated
d. loan linked deposits (general)	not stated
e. loan linked deposit scheme modelled on German Bausparkassen	to be operational early 1985
2. Strengthening technical services to assist cost reduction	
a. recruit more technical staff	Oct. 1983 - Feb. 1984
b. advisory service for corporate clients	to be in place May 1984
3. Working toward mortgage insurance	not stated
4. Increase tax benefit for low-income corporate housing	not stated
5. Training to include special problems of low income loan applicants	Nov. 1983 - Jan. 1984
6. Outreach to smaller towns	not stated
Special Projects	
7. $500,000 loan to sugar cane farmers in Maharashtra	to be implemented November 1983
8. $50,000 loan to village dwellers in Valod Taluka, Gujarat	to be implemented October 1983
9. $1,000,000 loan to Gujarat government agencies for flood reconstruction	not stated
10. $25,000,000 individual loans to beneficiaries of World Bank Bombay Urban Development Sites and Services Project	over a five to seven year period

growing emphasis on customer relations in HDFC staff training, which may be particularly important for lower income people who have difficulty getting through the fairly complex and rigorous loan application process.

Finally, the underwriting of HDFC loans emphasizes working through the special problems of applicants who do not on first review appear to be able to afford the loan. HDFC technical staff advise applicants on reducing the size and design of the house. In early 1985 HDFC had just begun a real estate service that, among other things, was to help prospective homebuyers identify locations and builders within their price range. In many cases, after a review of the family's total financial situation and potential income growth, HDFC permits loans that require more than 25 percent of income for repayment.

These standard HDFC practices were not only described by top staff in Bombay, but were confirmed by the team during extensive interviews at the three HDFC branch offices visited.

On the corporate side, HDFC's efforts to reach lower salaried workers are less clear. HDFC appears largely to process the loan as applied for, letting the corporation determine the income ranges of workers who will live in corporate housing. There have, however, been some cases in which HDFC has successfully suggested that the corporation reach additional people by building more units at lower cost per unit.

HDFC has an informal policy, described to the team, of permitting a higher than loan cost ratio than the standard 50 percent policy for corporate loans, if the housing is designed for lower salaried workers. However, the team was unable to determine that this policy had in fact been used by HDFC to influence the targeting of specific corporate projects.

General Proposals in the Low Income Policy and Plan

Although they feature prominently in the low income policy and plan, HDFC has moved with great caution on possible modifications to its standard loan terms.

It will be recalled that HDFC's standard mortgage includes a clause that permits an adjustment in the interest rate. However, this feature is not emphasized in loan discussions, does not have the effect of permitting lower initial interest rates, and HDFC intends to use it only if dramatic increases in the cost of funds threaten financial catastrophe for the firm. Thus, from the point of view of loan affordability, HDFC's standard mortgage is a level-payment self-amortizing mortgage with a 15 year term.

The firm has for some time had a form of graduated payment mortgage (the Step up Repayment Plan, item 1.a. on Table 5.6), but has made only a handful of such mortgages. In this mortgage, the payment increases at five-year intervals and the first increase - 15 to 20 percent of the original equated monthly installment -- will occur in 1986. HDFC staff is reluctant to expand this effort, both because of the possibility of increased default risk and because of the administrative costs of implementing a schedule for changing EMI's (often deducted from the borrower's salary and sent directly to HDFC by his employer). On the other hand, HDFC staff appears to believe that the predictability of a GPM make it more easily marketable in India, where households traditionally are conservative in their financial dealings, than many other alternative mortgage instruments.

The very small scale on which the Step-up Repayment Plan has been tried make it unlikely that much will be learned from the experience with the first "steps" in 1986, and the team believes that GPM's are a type of mortgage HDFC might begin making on a wider experimental basis immediately as a major part of the firm's effort to maintain and increase the targeting of its individual loan program to lower income households.

HDFC has made a very few loans with 20 year terms, making an exception to its standard maximum 15 year term in the individual loan program (item 1.b on Table 5.6). The firm is reluctant to expand this practice, not only because of the risk of interest rate mismatch between long-term assets and shorter-term liabilities, but also because of a concern that some of its current sources of funds could disappear altogether through unpredictable changes in Government of India tax and credit allocation policies. Particularly as HDFC continues to broaden its base of funds mobilization, the team believes that it could experiment more boldly with longer-term loans. For example, a loan with a roll-over feature at a set date (e.g., ten years into a twenty-year loan) could mitigate the interest-rate risk associated with a longer-term mortgage. An increase in loan terms from 15 to 20 years would lower monthly payments on the loan by about 10 percent -- enough to help qualify borrowers who are now at the margin.

There is no question conceptually that loan terms could be adjusted so that monthly payments could be reduced -- for example by increasing the loan term -- while interest rate risk exposure need not be increased through, for instance, explicit agreements to recast the loan in say 5 or 10 years. There is, however, legitimate concern on the part of HDFC staff that such recasting may create political problems in the realization of scheduled interest rate increases. Such problems have in the past generated legislative solutions in Canada and Great Britain,[1] and more recently Brazil (1984) has introduced a subsidy program to avoid having to increase mortgage rates as much as the agreed to index recommends.

Reducing interest rates for lower income borrowers (item 1.c.) is perhaps the most obvious way of making HDFC loans more affordable. The team feels, however, that HDFC would be making a serious mistake by altering its interest rate structure in a way that would compromise the firm's financial integrity or conceal the actual cost of supplying capital for housing. If HDFC is to be involved in subsidized housing finance schemes, the subsidy should be kept explicit -- as, for example, when in its current programs, HDFC loans to a corporation or other institution which then on-lends the funds at a subsidized rate.

HDFC has had for several years a loan-linked deposit scheme (item 1.d.), which has not been very successful in attracting customers. In return for a lower interest rate paid on deposits (9 percent compared with its CD's, which pay up to 12 percent), borrowers who have saved at least Rs. 3,600 over a minimum of 18 months are eligible for somewhat more favorable loan terms: an 80 percent rather than 70 percent

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1. See Robert Buckley and Kevin Villani, "Problems with Adjustable Rate Mortgage Regulations," The Housing Finance Review, Fall, 1983.

loan/cost ratio and a 20 year term rather than 15 years. Apparently these terms are not sufficiently advantageous to offset the lower interest rate on deposits. While the longer loan term would reduce monthly payments somewhat, most lower income homebuyers would not be able to carry a loan for 80 percent of the cost of a house, so this feature is not an effective incentive to participate in the scheme.

In a further effort to reach households who cannot currently afford to buy, HDFC has been gearing up for over three years to introduce another variety of loan-linked savings plan. In this Home Savings Plan (item 1.e on Table 5.6), modeled after the West German Bausparkassen program, an individual will contract to deposit a certain amount with HDFC over a two to seven year period, receiving a below market interest rate, and then will be permitted to borrow an additional amount at a below market rate.[1] This innovation has been delayed because of limitations on staff time and is now planned to begin in May 1985. HDFC's goal is for a gradual build-up of Home Savings Plan accounts. The firm acknowledges that the pool of funds established under this program may not be adequate to permit draw-down of loans and may, therefore, require a subsidy from other HDFC resources.

The team considers that the altered terms of this new approach to loan-linked savings may still not overcome market resistance, especially in view of the plan's complexity. The amount of staff time required to set up and administer a special program involving both deposits and

1. The household receives 6 percent interest on deposits. When the account reaches the goal, the savings are withdrawn and HDFC lends an additional amount up to 150 percent of the amount saved, at 8.5 percent. The household can borrow further at standard HDFC rates, but both loans are counted in the maximum 70 percent loan/cost ratio and in HDFC's calculation of the borrower's ability to service the loan.

loans is a cause for concern, as is the likelihood that HDFC will have to bail the program out at some point. While HDFC should be recommended for taking some risks in an effort to help lower income people finance housing, it would be preferable for the firm to take these risks through simpler and less staff intensive alterations in its standard mortgage.

In addition to varying its mortgage terms, another type of general proposal in HDFC's low income policy and plan has to do with reducing the cost of the housing unit itself, rather than its financing (items 2.a and b). The idea is that both institutional and individual borrowers can be advised on more intensive land use, more efficient design, cost-saving materials, and the like. HDFC has moved on its plans to hire additional technical staff (civil engineers) both at the head office and branches, as foreseen in the low income plan. As noted above, advice on down-scaling and other cost-containment measures is part of the regular underwriting process for lower-income borrowers in the individual loan program. It appears that HDFC could be more aggressive about recommending to corporate loan applicants that they keep unit size small and design modest in order to house a larger number of workers for a given cost. HDFC technical staff should be involved at the earliest stage of discussion of corporate loans to maximize the chance that their advice will be effective.

As for HDFC's plans to establish an Institute for Housing Research, the team is somewhat skeptical that there await discovery cost-saving measures not already known to its technical staff. Plans for the institute do not, in any case, appear to be as far along as predicted by the low income plan as of September 1983.

Perhaps the central constraint on HDFC's ability to provide mortgage finance to lower income households is the expected cost of foreclosure in the Indian legal system. The Shah Report details at great length the complexity of the legal processes associated with foreclosure on a loan that is in arrears.[1] It says that it could take as long as ten years to complete legal proceedings. As detailed earlier, HDFC has gone to great lengths to avoid incurring this risk, i.e., through very large down payment requirements, the use of co-signers, and moral suasion. Nevertheless, the fact remains that HDFC's methods avoid this risk; they do not insure it. As a result, as the Lall study shows, lower income households -- who are less likely to be able to borrow from relatives -- face the largest increase in overall financing costs as a result of HDFC's default risk avoidance approach.[2] They are left either to borrow from indigenous money lenders at much higher interest rates, or without the ability to mobilize sufficient resources for purchase. It is important to stress that this observation is not a criticism of HDFC's underwriting approach. The financial integrity of the firm requires that the firm not take on the risks of such default; it has neither reserves of sufficient size to accommodate defaults nor the legal environment to rectify large scale payment delinquencies.

The development of some means of dealing with this risk, such as through mortgage default insurance (item 3) is vital to the development of a wider housing finance system in India, and particularly to

1. R.C. Shah, op. cit.
2. D.V. Lall, 1984, op. cit.

mobilizing funds to be loaned to homebuyers at lower income levels. A key question for HDFC will be whether to itself become a mortgage insurer or whether to play an active advisory role to the Government of India and state governments in removing legislative barriers to mortgage insurance.[1] HDFC's advisory role has already begun, with the firm's legal staff working on ways to modify Indian foreclosure laws.

Another area in which HDFC is working to influence legislation is the tax treatment of corporate investments in lower-income workers housing (item 4). Currently the law (Section 32 of the Income Tax Act) permits a company to depreciate in the first year 40 percent of the cost of housing targeted to workers earning less than Rs. 10,000 per year (833 Rs./mo.). This income figure is now unrealistically low, especially compared with pay scales for skilled and unskilled industrial workers in Western India. An increase in the income level relating to this tax provision would have the effect of increasing corporate construction of workers' housing both with HDFC financing and from other sources of funds.

The final two general proposals in HDFC's low income plan (items 5 and 6) have been fully implemented and incorporated into HDFC's regular operations. Ad hoc training of loan officers at various HDFC branches emphasizes helping lower-income loan applicants to succeed in getting a loan. This often involves patience, and tact, as well as general skill in financial counseling. It is said to have pay-offs beyond the

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1. An interesting discussion of lower income lending issues and some possible policy responses is contained in Pradip P. Shah, "Operational Problems and Potential for Low Income Lending," in Proceedings: Housing Finance Seminar Goa, India Office of Housing and Urban Programs Agency for International Development, March, 1984.

individual loan made, as relatives, neighbors and co-workers of the original loan applicant are encouraged to approach HDFC for a loan.

The program of outreach to smaller towns involves periodic visits by HDFC staff to solicit deposits, take loan applications, complete the underwriting process, and so forth. Branch managers interviewed by the team estimated that they spend several staff days per month on these visits and that as many as 25 percent of their loans are made as a result.

Special Projects in the Low Income Policy and Plan

The Low Income Action Plan prepared for AID included four special projects designed to reach particular low income target groups. Since then other, similar projects have been identified by HDFC and AID as special low income initiatives. Indeed, the terms of the HG002 loan require that at least 15 percent of loan funds be used for such projects.

Of the projects identified during the HG001 period, two have come to fruition. The loan to finance housing for sugar cane farmers in Maharashtra (item 7 on Table 5.6) was largely disbursed by the end of calendar 1984. It appears to differ from other HDFC group loans chiefly in that beneficiaries were previously living in housing made of impermanent materials and the loan permitted the building of permanent structures. On the other hand, the units cost Rs. 60,000 and the loan is for 15 years at 13.5 percent.[1] In order to carry a full 70 percent loan at 30 percent of income, a borrower would need an income over 1,800

1. HDFC, Project Board Notes and "Updated Low Income Action Plan," January 1985.

Rs./mo. Households at 1,000 Rs./mo. (the average income mentioned in project plans) must be be borrowing only 23,000 rupees and financing the other 37,000 out of savings. Loan/cost ratios below 50 percent are not unusual for HDFC borrowers, even low income borrowers. The point, however, is that this project is innovative for HDFC only in being a rural project. Otherwise it is standard HDFC business.

The loan to village dwellers in Valod Taluka, Gujarat (item 8), made possible the upgrading of traditional, rural housing made of impermanent materials at an average cost per dwelling unit of Rs. 5,000. The project is partly financed by a grant from a West German aid organization and HDFC further subsidized the project by making the loan at a 10 percent interest rate.[1] The loan was fully disbursed in June 1984, and, according to HDFC staff, collections are proving to be a problem. This project reaches a population fundamentally different from the standard HDFC low income borrower in that the households do not have a stable source of income. The project also departs from HDFC's policy of lending only for permanent construction with full facilities. On the other hand, given the heavily subsidized nature of the project, it does not appear to be a likely model for a new type of HDFC loan program.

The loan for reconstruction of flood damaged houses in Gujarat (item 9) has not been drawn down because other sources of financing were available and the HDFC loan was not needed.

HDFC is also continuing discussions with the World Bank on possible participation in a large sites and services project in Bombay (item 10). If HDFC participates in this project, its role will be to make

1. Ibid.

mortgage loans for the construction of units on serviced sites, using its regular underwriting standards. This project appears to differ from other HDFC individual loans to households who have obtained land developed by public authorities only in the potential number of households who may be involved.

Finally, HDFC is in the design stage of two similar means of leveraging its skills so that resources can be mobilized in under-served areas. Plans call for the firm to take a small equity position and provide technical assistance on loan underwriting to both a rural mortgage credit program in Gujurat State and into a firm in eastern Indian. In the former case other participants are the IFC, ICICI and Gujurat State. In the latter case, the Unit Trust of India, similar to a national mutual fund, is the major participant. Although the risks involved are difficult to measure beforehand, both strategies are conceptually well thought out and the company's exposure is limited. Furthermore, it is very likely that HDFC's participation in these programs is a *sine qua non* for the involvement of such large intermediaries as the IFC, ICICI, and the Unit Trust to share in this developmental risk taking.

Conclusion

HDFC has made a good faith effort to implement the low income policy and plan agreed to as a condition for drawing down the first tranche of HG001. The existence of the policy and plan appear to have increased HDFC's overall emphasis on reaching lower income people, looking for opportunities to reach lower income occupational groups and to make loans on housing units in a price range affordable to low and moderate income households.

However, it is the team's view that more emphasis should be placed on aspects of the low income policy that can have a systemic effect on HDFC's programs and practices. This includes a greater willingness to experiment with changes to the standard mortgage instrument and a continued push for legal changes that will make possible the creation of some means of more effectively dealing with default risks, such as the establishment of a mortgage insurance industry. Particularly important, as well, is a continued push in the area in which HDFC's record is already most impressive: daily outreach and loan processing practices that increase the numbers of lower income people who apply for loans and that help these applicants succeed in getting loans and buying houses.

The team is skeptical about the utility of special projects as a central thrust of HDFC's -- and AID's -- push for greater targeting to the lower income. The special projects included in the 1983-1984 policy and plan, as well as more recently identified special projects, either do not appear to be significantly different from other HDFC loans that happen to reach lower income households, or do not appear to be easily replicable. The main special feature about these projects, unfortunately, is that they require an especially large amount of HDFC staff energy. The team believes that both staff time and funds earmarked for experimentation would be better spent in areas that are likely to lead to increased lending to lower income households through HDFC's mainstream activities. Under this approach, further targeting on lower income households seems more likely to be sustained after AID's direct involvement with HDFC terminates.

II: RESOURCE MOBILIZATION

A central issue in an analysis of a firm that attempts to bring not only a new method of financial intermediation to a country, but also a method that represents the first private efforts to provide financing for housing is: How successful was the institution in mobilizing resources? And, in order to focus on the effects of the HG loan this question must be carried a step further to consider how the provision of the HG loan affected past mobilization efforts and prospects for future mobilization. That is the topic of Chapter 3. We consider in some detail how the firm has fared in each of the different methods it has used to mobilize funds. We also analyze the possible effects that the HG loan had on these efforts. Then, in Chapter 4 we evaluate the risks and policy initiatives that the firm took to carry out its mobilization of resources. We review each of the types of risks to which HDFC is exposed as well as the policy reforms that the firm has pursued to reduced these risks and broaden its access to the credit markets. Finally, we discuss the possible balance of payments effects of the HG swap agreement.

6. THE CORPORATE PROGRAM; WORKERS' RENTAL HOUSING

HDFC makes loans to corporations, including both private companies and state-owned institutions, to build housing for employees. Generally ownership of the housing is retained by the company, although in a few cases companies have set up lease-purchase arrangements under which ownership will eventually pass to the occupants.

HDFC generally lends up to 50 percent of the value of the housing and the repayment period ranges from three to seven years. The typical interest rate is 15 percent.

During the HG001 period, about 15 percent of HDFC funds sanctioned for lending were for corporate housing and this produced some 11,800 units or 20 percent of the total units financed by HDFC.[1]

Although AID recognized from the initial planning of HG001 that the corporate program was a major vehicle through which HDFC reaches lower income households, there have been some misgivings about AID involvement in a program which produces rental housing with tenure under the control of the employer, rather than units owned by lower income households.[2]

The evaluation team reviewed AID files on corporate housing projects submitted for HG disbursement during the HG001 period, as well as case studies of corporate projects prepared for AID by an Indian

1. Since AID approved for disbursement under HG001 some corporate loans that had been sanctioned before June 1981 but not yet disbursed by HDFC, these figures on units sanctioned during the HG001 period do not correspond to units eligible under HG001.

2. See, for example, Office of Housing and Urban Programs, Private Housing Finance for Low-Income Families, India, Project Paper, 386-HG-002, 1984, pp. 3-5 and 22.

consulting firm in 1984.[1] In addition to interviewing HDFC staff on policies and trends in the corporate loan program, the team visited seven corporate projects in three Indian states, examining the quality of the units and interviewing corporate officials on company housing policies and the details of the particular projects.[2]

Benefits to Occupants of Worker Housing

Workers who occupy company-owned housing on a rental basis typically live in housing substantially better than they could otherwise afford. Rent charges are low, ranging from no rent to 10 percent of salary. A review of files found no case in which the company was attempting to recover the full cost of the housing on the basis of rent charges. In a standard case, a worker earning 900 Rs./mo. would be living in a 35 sq. m. unit which cost the company Rs. 34,000. The monthly cost to the company for the unit would be Rs. 621 (assuming an HDFC loan at 15 percent for 5 years and the same cost of funds for the portion of the cost financed from other company resources). If the worker is charged 10 percent of salary or 90 Rs./mo. for the unit, the firm is subsidizing 85 percent of the cost or Rs. 531. In effect, the worker's salary has been increased by over 50 percent.

The structural quality and amenities of corporate-provided housing are basically the same as for units purchased by individual borrowers at income levels at or below 1,200 Rs./mo.; and the number of occupants for

1. Maser Private Limited, Report on Corporate Housing with Special Emphasis on Certain Projects Financed by H.D.F.C. in India. March 1984.
2. See Annex G for the method by which sites were selected and Annex E for the interview guide used by team members.

the size of the unit is usually lower.[1] Units visited by the team were structurally sound and well maintained.

This substantial subsidy through the provision of good quality housing at low or no rent is viewed by both the company and its workers as part of the compensation package. In fact, according to HDFC staff who discuss loan plans with corporate officials, the reason for a company's interest in building workers' housing sometimes is that the company is being pressed for such a benefit in labor negotiations. One company visited by the team is a parastatal corporation, for which the plant manager pointed out workers' direct salaries are limited by law, but provision of low-rent housing is not.

In some cases, workers who do not live in company-owned housing receive a housing allowance instead. This is usually a small sum compared to the cost of renting equivalent housing. For example one company reported as its housing allowance the same 5 percent of salary that it deducted from the salaries of workers who live in the company housing project.

Alternative housing available to workers who do not live in company-supplied housing depends on the type of area in which the company is located. In urban areas, workers live in less desirable units at higher cost to them (e.g., in units with shared rather than individual sanitary facilities and less ventilation, and sometimes made of less solid materials) or live with extended families. In industrial sites located in small town or rural areas, workers without

1. Typically four family members instead of six. See also Maser, op. cit., pp. 47 and 53.

company-provided housing typically are local people living in traditional dwelling units of impermanent materials.

While the occupants of rental worker housing must vacate their units when they leave the company's employment or retire, this does not appear to cause hardship. Most workers stay with a company until retirement and a somewhat common pattern is for a worker to begin buying his retirement house several years in advance, using a combination of withdrawal of provident funds, other savings, and, sometimes, homeownership loans from the company. The low cost of company rental housing may, in fact, contribute to the high savings rates that make homeownership possible for these workers.

In addition to housing units, companies that build housing with corporate loans from HDFC often provide other facilities for their workers, such as a recreation room with a communal TV set, classroom space for children in kindergarten and lower levels of grade school, and school busing for older children. Especially for factories in remote areas, there may be a cooperative store, although at most sites visited by the team workers shopped for food, clothing, and other consumption items in the local village or urban neighborhood. It is important to point out that in all cases such facilities were viewed by both employers and employees as part of the workers' benefit package. In a highly unionized environment like India, the exploitative aspects of "company towns" are unlikely to exist, and the team saw no evidence of this at the projects visited.

Homeownership Alternatives

Worker rental housing built with HDFC financing usually is part of a larger system of company provided housing assistance. There are at least three ways in which HDFC finances homeownership for industrial workers, and a company that owns worker rental housing usually is also involved in at least one of them.[1]

(1) In a few cases, the corporate loan itself, i.e., a loan the corporation is directly responsible for repaying, has been used by the company to build housing that is then sold to workers on an installment basis, rather than rental housing. Six of the 73 projects approved as HG eligible during the HG001 period were on-lending projects of this type, and the team visited two such projects: Vanaz Engineers, at Pune, and State Industries Promotion Board of Tamil Nadu, near Bangalore.

(2) Some corporations participate in the HDFC line-of-credit program, in which the company screens individual homebuyers from among its employees and guarantees their loan repayments to HDFC. Seven corporations which had taken HG001 eligible loans for workers' rental housing were identified by HDFC staff as also having HDFC line-of-credit loans to help workers buy retirement housing.

1. In addition to the corporate projects visited by the team, the team reviewed "housing policy statements" which are now submitted by corporate loan applicants (a requirement of HG002). Several of these statements described corporate homeownership programs, in addition to the rental project for which the HDFC loan would be used.

(3) Many companies' employees take loans from HDFC on an individual basis, and, where permitted by law, the company agrees to deduct their monthly payment to HDFC from their salary. As noted above, HDFC sometimes links corporate deposits to commitments to make a certain volume of loans to the company's employees.

Table 6.1 describes the homeownership programs found to exist at the seven corporate housing sites visited by the team.

There are a number of reasons why company-owned workers' rental housing may be more suitable than homeownership programs for some workers and some companies. The first and most obvious is income levels. In order to afford to buy the Rs. 34,000 unit used in the example above, with a 30 percent down payment and standard HDFC individual loan terms (15 years at 13.5 percent), a household would have to have an income of at least 1,000 Rs./mo. and be able to pay 30 percent of income to service the loan. A family with an income of 800 Rs./mo. could only afford a unit costing Rs. 27,850,[1] a modest price even assuming some indirect subsidies from the corporation, such as below-market land.

Another reason for rental rather than owned housing may be the location of the company's operations. Where the plant is located in a remote area, the workers may not be willing to buy housing units, even if they can afford them, as they intend to return to their place of origin at retirement. In addition, the company may want to keep a stock

1. The interest rate would be 12.5 percent in this case, because the loan would be under Rs. 20,000.

TABLE 6.1

HOMEOWNERSHIP PROGRAMS AT CORPORATE SITES VISITED

Company	Type of location*	Homeownership Program
Polychem Ltd.	remote	subsidized homeownership loans available after 10 years service -- used for retirement housing
Vanaz Engineers	not remote	corporate loan is for homeownership -- lease-purchase over an 8-9 year period
Bajaj Auto	not remote	extensive use of HDFC individual loan program with salary check-off by employees with higher salaries than rental occupants
State Industries Promotion Board of Tamil Nadu	not remote	corporate loan is for homeownership -- units to be sold to individual companies and then to workers. Project is having marketing problems.
Premier Mills	remote	company is holding additional land for future homeownership program as area develops
Madras Cement	remote	company provides homeownership subsidies (below-market land, infrastructure and Rs. 3,500 interest-free loan); used in combination with HDFC individual loans with salary check-off
Tamil Nadu Steels	remote	extensive use of HDFC individual loan program with salary check-off

* Team members' observations.

of company-owned housing because it needs it for essential staff near the plant site. Such essential staff include, for example, skilled workmen who service machinery. This point was emphasized by three of the companies visited -- Polychem, Ltd., in rural Maharastra, and Madras Cements and Tamil Nadu Steels in rural Tamil Nadu.

Where workers are willing to buy and alternative housing is available for future workers, some companies have been willing to provide a homeownership subsidy, rather than low rent housing, as part of the compensation package. Forms of subsidy include transfer of company-owned land and in-kind contributions to construction, as well as interest subsidies. Again, using the example of a Rs. 34,000 house and a worker's household with an income of 900 Rs./mo., if the family could raise a down payment of Rs. 14,000 or 41 percent of value and the company were willing to provide a Rs. 20,000 mortgage at 10.5 percent interest for 10 years, homeownership would be feasible. Alternatively, the company might provide free land and infrastructure thereby reducing the loan principal.

The cost of homeownership subsidies of these types for the company would generally be less than the Rs. 531 rental subsidy for the same unit rented at 10 percent of salary, but the company would not end up owning the asset.

In the team's view, the trade-off between subsidized homeownership and low-rent company-owned housing should be left a matter of company policy and negotiation with the unions. An attempt on HDFC's part, or AID's, to push companies to change housing plans from rental to homeownership could have the perverse effect of discouraging companies from providing housing for their lower-salaried workers.

Corporate Worker Housing and Industrial Dispersal

In addition to providing low rent housing as part of workers' compensation, a number of companies build worker housing because their plant is located in an area remote from a population center with a skilled labor force. Housing must be provided for skilled workers because there is no acceptable local housing or no housing close enough to the factory. The availability of an HDFC loan makes possible, or at least advances the schedule, of industrial expansion in such areas. It thus supports the Government of India's program of dispersing industry away from major metropolitan areas.

The Government of India and various state governments maintain systems of tax incentives to encourage industries to locate in so-called "backward areas." Backwardness is defined in terms of recent investment history and designations and boundaries of such areas shift over time. They may not be directly relevant to the question of whether the construction of worker housing supports industrial dispersal, since low investment areas may have a pre-existing housing stock, while areas in which housing must be built to attract workers may not be officially designated backward areas.

HDFC staff familiar with corporate project locations identified 38 of 68 corporate projects eligible for HG001, with some 3,500 of 6,200 units, as located in areas where workers' housing was essential for the success of the enterprise. These figures exclude tea planations and mines, another 7,500 units, since their location in remote areas is not relevant to industrial dispersal.

HDFC and the Corporate Loan Program

The corporate loan program is a money-maker for HDFC, carrying higher interest rates and shorter terms than individual loans. In 1984, the average rate of interest was 13.56 percent for the individual loan program and the average term was 13.15 years, while in the corporate program the average interest rate was 15.09 percent and the average loan term was 5.78 years.[1]

While in theory corporations can take loans for housing for low salaried workers from public institutions -- HUDCO and LIC -- at more favorable rates, in practice such loans have been difficult to obtain. Several company officials stated in interviews with team members that they had given up on HUDCO or LIC after interminable processing delays and turned to HDFC.

The other principal source of non-governmental funds which corporations could use to build housing, inter-corporate borrowing, is more expensive than HDFC.

The profitability of corporate loans from HDFC's standpoint indirectly helps HDFC reach other lower income households through the individual loan program by making it possible to keep individual loan rates low (12.5 percent for loans up to Rs. 20,000 and 13.5 percent for loans from Rs. 20,000 to 50,000) without compromising the firm's financial integrity.

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1. HDFC, "Management Report: Operations as on June 30, 1984."

During the HG001 period, the size of HDFC's corporate program increased, from a total value of sanctioned loans of $3 million for the year just before HG001 to $13.5 million in FY 1984. The corporate program has not grown quite as rapidly as HDFC's individual loan program, however. As a percentage of cumulative loan amounts sanctioned, the corporate program declined from almost 19 percent of HDFC business as of the end of 1981 to 16 percent as of the end of 1984.[1]

Prospects for growth in HDFC's corporate loan program appear good. The Government of India's Seventh Plan continues to emphasize incentives for plant location in officially-designated backward areas and, in a country with a severe shortage of minimally acceptable housing, workers are likely to continue to press for housing as part of their compensation.[2] HDFC branch managers interviewed by the team predicted a substantial increase in corporate lending over the next three years.

If HG funds could not be used for HDFC corporate loans, this would not affect the volume of such loans, since HDFC would still make as many of these highly profitable loans as it could. Rather, the effect would be to limit HDFC's overall growth rate since HG funds would be drawn down more slowly if they could only be disbursed against individual HDFC loans. This might put some additional pressure on HDFC to reach lower income borrowers through its individual program. However, given the

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1. HDFC, "Management Report: Operations as at June 30, 1981" and "Management Report: Operations as at June 30,1984."

2. Planning Commission, The Approach to the Seventh Plan (Delhi: Government of India, 1984), pp. 6 and 28.

reasonable efforts HDFC is making to target its individual loan program to lower income borrowers, the team does not believe this consideration should be given much weight.

Conclusion

The team concludes that the corporate loan program is an appropriate use of HG funds. It provides substantial benefits to lower income workers by realizing companies' willingness to provide housing as compensation for workers, thereby adding to the housing stock in a country with a vast shortage of decent housing. And it supports the ability of HDFC to reach other low income households through cross subsidies. Moreover, there is no evidence that occupying housing owned by their employer presents problems or disadvantages to Indian workers. Finally, the availability of financing for company-owned housing has not acted as a barrier to homeownership opportunities; indeed, HDFC has used corporate loans as an entry-point to marketing individual loans to workers who can afford them.

PART IV

SELECTED ASPECTS OF HDFC OPERATIONS

Two rather diverse topics are treated in this part of the report. First, we examine the procedures followed by HDFC to assure that the quality of the units on which is makes mortgages is good. These procedures -- and their effectiveness -- are important because they in part determine the degree of risk to HDFC from delinquencies or foreclosures that could result from serious construction defects. The second topic, the subject of Chapter 8, is the impact of the expenditure of the technical assistance resources provided by AID to HDFC for institutional development. The resources were devoted to making improvements in the non financial aspects of the firm's operations, particularly in the personnel function.

7. APPRAISALS AND INSPECTIONS

Questions have been raised about the quality of the housing financed by HDFC, not because of any indication of problems existing but rather as part of a general concern about sound business practices. From HDFC's perspective, loans on poorly constructed buildings could increase the likelihood of mortgage default. From AID's perspective, association with deficient units -- through its lending to HDFC -- could be a source of embarrassment. To study this issue the team reviewed the procedures followed by HDFC in appraising and inspecting units on which it might make loans and an AID engineer inspected a sample of properties for which AID funds had been employed for the mortgage to determine if gross deficiencies were present.

This chapter first summarizes the procedures followed by HDFC and then examines the extent of the Corporation's financial exposure in the case of default. The final section presents the results of the actual inspections.

HDFC Procedures

Both appraisals to determine the value of the unit and inspection to check on unit quality are done by the same group of engineers and architects. Often these engineers are regular members of the HDFC staff, but in some of the branch offices, where the volume of work is less, contracted services are used. In terms of appraisals, a screening takes place at the time of the mortgage application. The application itself asks for general information on the unit to be purchased or constructed such that a cost per square foot can be computed. Where this figure appears to vary significantly from the norm, further inquiries are made. The objective here is to guard against inflated house costs -- which could result in HDFC providing a mortgage on the property constituting a larger share of its actual value than its guidelines permit -- and against understated costs, which could result in the unit's construction not being completed. Based on this review, the loan is sanctioned, i.e., a loan is provisionally approved based on the borrower's ability to pay.

The detailed appraisal comes prior to the disbursement of the loan. The HDFC loan is only made after the household's other sources of funds have been invested in the property. So at the time at which the borrower asks for his funds, the appraiser visits the property to insure that work equivalent to that claimed has already been accomplished, that the funds to be borrowed will be sufficient to complete the unit as proposed, and that the construction quality is adequate. This is the key step, and HDFC officials informed the team that loan disbursements had been denied at this point on a small number of properties.

A key element in the appraisal process is establishing the value of the property. This is especially difficult in India because of the widespread practice of side payments between seller and purchaser (so-called "black money") which reduce the nominal cost of the unit in order to reduce transfer taxes and to establish a lower property tax base.[1] HDFC tends to use information on development costs rather than value estimates for this reason. For individual units (bungalows) and corporate housing projects, in determining the loan to cost ratio, the cost is computed as the purchase price of the land (not current value) plus the cost of development. Similarly, when the borrower is purchasing a flat in a multiunit property the appraiser computes the cost of the unit to the extent possible. This cost is compared with the agreed upon purchase price; a higher maximum loan to cost ratio is permitted if necessary to adjust for the presence of black money.[2]

The key to understanding HDFC's role in carrying out **inspections** of dwelling quality is the fact that under Indian law the architect is fully liable for deficiencies in workmanship and violations of building codes. In order for a unit to be constructed legally, the architect must present his plans to a municipal authority for approval. HDFC makes a loan on the basis of an approved set of plans. During the construction process, HDFC will periodically make inspections, with a primary purpose of insuring that the funds disbursed in prior tranches have been used in the construction; a secondary objective is to insure against negligence in actual construction. The municipality does a

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1. The extent of black money has been reduced in the past couple of years by a new law which gives government the right to purchase any unit for which it can establish that the market value exceeds the purchase price by more than 25 percent. Government has done this in some cases and this measure seems to be having some effect. Prior to this in Bombay at least, black money is said to have accounted for half of the transaction. Note that the black money phenomena is generally less prevalent in smaller cities.

2. The maximum loan rises from 70 to 85 percent of cost, although the loan to value ratio remains at 70 percent or less.

general inspection of the unit prior to issuing a certificate of occupancy. HDFC accepts this certificate as the indicator of substantial completion of construction.[1]

As noted above, the same engineers are involved in both the appraisals and inspections for HDFC. To date HDFC has not developed a quality control system which routinely checks a sample of the engineer's work. On the other hand, the firm will do additional appraisals of projects in which it will make loans on a number of units.

HDFC Risk

The extent of HDFC's exposure depends on the likelihood of default and the cost of each default that actually occurs. Among the reasons for default, poor quality construction is the factor of interest here. To appreciate the extent of HDFC's exposure in principle, this section examines its exposure to default loss generally. The next section comments on the extent of construction defects to date and HFDC's response to them, and reviews the result of the inspections of HDFC-financed units undertaken as part of this evaluation.

HDFC's exposure is generally quite limited. First, the maximum loan-to-value ratio for individual loans is .7; on corporate loans, it is .5. In practice, this ratio has been about .5 for individuals as well because borrowers are more constrained by ability-to-pay than by the loan limits. Also, note that typically the value (or cost) basis

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1. HDFC has begun "prequalifying" units in some projects. The plans of the projects being developed by architects and builders with whom HDFC has had good experience in the past are examined, and, on this basis, HDFC agrees to provide financing to qualified purchasers of the units. This sharply reduces the risk to the developer and speeds the loan approval process for borrowers.

for this ratio is conservative because land is valued at book, rather than current, value. Second, HDFC requires varying amounts and types of guaranties, depending on its views about the riskiness of the loan. So, for example, more extensive guaranties are required from self-employed and others with variable incomes than from factory workers whose payments are deducted automatically from their salary payments and remitted directly to HDFC by the company. The collateral can be personal guaranties, signed by friends and relatives[1] whose financial positions are at least as strong as the borrowers as well as by assigning assets over to HDFC. Such assets include stocks and the cash value of whole life insurance policies. Should extensive delinquencies occur, HDFC can call the guaranties, which places great pressure on the household to come to an arrangement with the Corporation. Third, the relatively short loan terms for its loans offers HDFC additional protection against default from any cause.

Against the very strong position in which HDFC has placed itself is the extremely high cost of actual foreclosure. The legal process for obtaining possession of a property is long, complex, and costly. A highly efficient proceeding might take as little as two years; a more typical one, five to seven years. In reality, however, households are reluctant to engage in such legal proceedings even though they would retain possession of the home for this period, because of the great legal expenses they have to bear.

As a consequence of the high cost to the household of foreclosure proceedings and the pressure which HDFC can place on the household by

1. Of relationship no closer than cousins.

contacting those who have provided guaranties and by taking possession of collateral assets, HDFC has yet to begin legal proceedings in the case of extensive delinquencies. Rather, the Corporation has been able to work out the sale of the unit by the household, with the family having to find alternative living arrangements. HDFC officials report that this extreme action has only occurred in a handful of cases. Hence, HDFC's actual as well as nominal default rate has been extremely low.

Construction Quality

As noted, we have two types of information on problems with the quality of new housing financed by HDFC. One is HFDC's report to the team on the number of complaints brought to them. The other is the set of independent inspections of completed units carried out by an AID engineer.

HDFC reports that it gets a few complaints per year about dwelling construction, perhaps a half dozen. These problems tend to be in small projects. As indicated earlier, in such projects, specially where HDFC is financing only one or two units, the Corporation does fewer inspections of its own. In any event, HDFC has in such cases contacted the builder and helped to get a correction of the problem. The Corporation has been quite successful in this regard, since the builder wants to be able to sell units in the future to purchasers using HDFC financing. It is important to note that other problems may well exist, which have been directed to the architect or builder and about which HFDC is therefore ignorant. From HDFC's perspective, the problem is a small one.

As noted, as part of this project, an AID engineer undertook independent inspections of properties which had received HFDC financing. The properties were selected from the areas serviced by the three branch offices which were visited by other team members; both the engineer and another team member visited each of the properties inspected. The properties were selected randomly, subject to some travel constraints; the procedures are outlined in Annex D. The number of units inspected is as follows:

TYPE OF HOUSING

Office	Corporate Workers		Individual Loans
	Projects	Units	(Units)
Madras	2	18	7
Bangalore	2	15	5
Puna	3	22	8
Total	7	55	20

Hence, a total of 75 units were inspected for structural soundness. While this number is not large enough to constitute a statistically valid sample, it should provide an indication of the presence of a high incidence of structural problems.

No cases of deficiencies in construction were found. Construction quality ranged from satisfactory to excellent with all but units at one corporate project rated higher than satisfactory. Overall the AID engineer was impressed with the quality of the design and construction, as well as the procedures followed by HDFC in assuring unit qualify.[1]

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1. The engineer's summary reports is included as Annex F.

Conclusions

The general conclusion is that AID has no reason to be concerned about the quality of the units financed by HDFC using Housing Guaranty resources. Inspection procedures are prudent and adequate. HDFC's risk exposure on its loans is very limited, thereby protecting it from the probability of having to enter into costly foreclosure proceedings. Finally, actual unit quality is certainly acceptable. There appears, therefore, to be no reason for AID to undertake independent inspections of units financed with HG funds by HDFC.

8. TECHNICAL ASSISTANCE

In addition to the resources provided to HDFC under the HG loan itself, a grant of $100,000 was also made. These funds were to be used for short term advisors, office equipment and training. As it turned out, all of the funds were expended on which can be broadly defined as training. An inventory of the use of the funds is provided in Table 8.1. Activities financed in 1981 and 1982 plus the first two listed in 1983 were all for the training of senior and middle management -- either in housing finance issues per se or for broadening their perspective on how to serve lower income households. The balance of the expenditures -- shown below the broken line on the page -- were for corporation-wide training and management improvements. In the following discussion we will refer to these as executive and corporate training, respectively.

The specific task in the statement of work is to evaluate the impact of the technical assistance on HDFC operations. In trying to make this assessment the team has had to rely heavily on the response of HDFC staff -- both those at corporate headquarters and those in the three branch offices visited. The balance of this chapter briefly reviews the training and our assessment of its effects.

Corporate Training

The corporate training consists of a single, large audit and training activity. Since about 70 percent of the total technical assistance funds were devoted to this activity, it has received more attention from the team.

TABLE 8.1

USE OF TECHNICAL ASSISTANCE FUNDS IN HG-001

Year	Purpose	Cost
1981	Attendance by one person at AID Shelter Workshop	$5,707
1982	Attendance by one person at meeting of International Union of Building Societies and Savings Associations in Australia	3,730
	Two persons visit the U.S. to speak to and learn from investment bankers	1,600
	Two participants to AID housing conference in Colombo	2,100
	Branch manager attends AID's Shelter Workshop in Washington	6,500
1983	Branch manager attends AID's Shelter Workshop in WAshington	5,284
	Two participants to East Asian Regional Conference for Planning and Housing	4,800

	Contract with National Savings and Loan League to evaluate alternative training institutions	471
	Contract with Institute for Financial Education for training needs assessment and design and conducting training	48,810
	HDFC local expenditures for training sessions in Bombay and Bangalore	15,800
Total		$99,602

HDFC was well aware that as its operations expanded rapidly it was having organizational problems -- ranging from staff training to internal communications. Such problems were also observed by several AID consultants and they are noted in the IFC monitoring reports and Project Papers written in 1983 and 1984. In response, HDFC, with assistance from the National Savings and Loan League, identified the Institute for Financial Education (IFE) to provide assistance.

The assistance program had three distinct parts. In the first, a two person team from IFE visited HDFC (headquarters and two branches) to conduct a management audit. The audit was a large enterprise, involving interviews with 120 people and the fielding of two surveys with a combined sample of over 200. The team returned to Chicago and prepared a draft report. In the second part, two HDFC executives met in Chicago with the IFE team and others to review the draft report and to develop a consensus on the type of training that would be highest priority. The revised report is a brief, lucid description of the strengths and weaknesses of the HDFC personnel function and general management practices.[1] The problems listed in the report are summarized in Table 8.2. Personnel and communications issues, broadly defined, dominate the list.

The third phase of the program involved actual training sessions conducted in India by IFE staff in the spring of 1984. All together six two-day workshops were conducted. The first was for HDFC executives and managers, and the other five were for the balance of the staff,

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1. C.W. Cook and G.P. Cardis, Organizational Audit and Human Resources Development Recommendations for Housing Development Finance Corporation. (Chicago: Institute for Financial Education, 1982).

TABLE 8.2

PROBLEMS AND CRITICAL ISSUES IDENTIFIED IN MANAGEMENT AUDIT CONDUCTED IN 1983 BY IFE

1. Recruitment, selection, and retention of professional personnel

   a. Perceived compensation inequities both within the firm and between those in the firm and those working for other firms.

   b. Inconsistencies in understanding how individuals in specific jobs "fit into the HDFC organization."

   c. Inconsistencies in the way Assistants are treated by Managers and Officers.

2. Managerial determination and assignment of organizational tasks - unclear job descriptions, non orderly assignment of tasks to Assistants, etc.

3. Organizational Structure: home office vs. branch office functions and roles - over centralization leads to reduced efficiency and low morale and slower development of branch managers.

4. Poor communications at all levels: lack of shared information, misunderstandings, managers "being out of touch or unaware" of the problems encountered by assistants who directly interact with customers, and ambiguity over a number of issues important to the staff.

5. Deficiencies in internal planning and management systems

   a. Neglect of the "developmental" side of personnel practices

   b. Need for a long-term process for identification of new branch sites, including long-term phase in of new branches

   c. Process for goal setting needed

   d. More attention to career planning alternatives and opportunities

   e. Upgrading of computer information system is needed.

Source: Cook and Cardis (1983).

including all the staff from the branch offices (except drivers, sweepers, etc.). A list of the sessions for the Executives and Managers workshop is given in Table 8.3. As is evident, the workshops focused on personal skill development and "team building using a problems solving format." As part of each session the problems discovered in the audits were reviewed and then small groups of staff worked on developing solutions to selected problems. Their conclusions were later presented to all workshop attendees for discussion by the group including management. These have formed one of the inputs which management has used in deciding on various administrative changes and training initiatives.[1]

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1. To obtain a more complete understanding about the degree of follow-up on the management audit findings, the team made inquiries into two problem areas identified: (a) personnel management, and (b) the decentralization of authority to the branch offices. In both instances, it was found that while some progress is definitely being made, improvement in these non financial management areas clearly has a lower priority that the strictly financial aspects of the firm's operations. At the same time, it should be stressed that top management is aware of the potential interaction between the two management areas, but so far at least has been unable to devote the necessary resources to more rapid improvement in the personnel and decentralization areas.

With regard to the personnel management function, for example, the firm has not created and filled an overall personnel manager position. Job descriptions for the staff have yet to be created, which in many ways is the first step to establishing career ladders and a firm basis for performance evaluation. Likewise, recruitment remains somewhat haphazard and salaries are not well aligned among those apparently having similar responsibility. On the other hand, considerable progress has been made in organizing a personnel office and two of the three middle management positions in it have been filled. A performance appraisal system is slowly getting off the ground -- including a dry-run in the headquarters office last December. Additionally, an impressive management trainee program has been established and its first class is about to join the ranks of the regular workers, after a year's training. Also, a customer relations course for all staff dealing with the public has been developed and at this point the staff at most of the branch offices have participated.

As to the decentralization of authority from the headquarters to branch managers, the team heard from the branch managers interviewed

TABLE 8.3

SUMMARY OF IFE TRAINING FOR HDFC MANAGERS AND OFFICERS
(Topics covered at training sessions)

1. Issues in management effectiveness
2. Communication for businesses
3. Developmental performance appraisals
4. Goal-setting and performance objectives
5. Team action planning for problem solving
6. Team presentations of problem-solving action plans
7. Motivation for team effectiveness
8. Managerial style and leader effectiveness
9. Team building at HDFC

Note: Training program for other staff, which managers and officers attended as well, had a greater emphasis on (a) communications within the firm, and (b) goal setting and performance evaluation.

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that they thought considerably more could be done in this direction. The response from top management was twofold. First, they perceive a great variance among the branch managers in their ability to handle more responsibility. They pointed to the results of internal audits which showed varying levels of financial and quality control within each branch (the results of these audits are routinely reviewed with the managers). Hence the rate of decentralization with vary significantly among branches in any event. Second, decentralization has been delayed by the slowness of shifting some key bookkeeping functions to computers; when this is done, for example, the plan is for the disbursal of loan funds to be turned over the branch offices. Again, some progress is being made, but it is possibly occurring more slowly than desirable for both operational efficiency and morale reasons. It should be emphasized, however, that the team did not have the time to investigate these areas in any detail; and the statements just made should be taken as impressionistic.

HDFC management views the results of the audit and follow-up training is a very positive light. For purposes of evaluating the impacts of the audit and training it is best to consider them as a single event. Five effects were identified at headquarters and in discussions with branch managers:

- the audit established the overall framework for addressing personnel and non financial management problems, and this framework is actively being used by HDFC;
- immediate gains in intra-firm communications were achieved through the training ranging from staff-manager level to that between branch offices and headquarters;
- a survey of participants made several weeks after the training showed that the majority felt the training had improved their own work environment and about one-third reported clear changes in the work behavior of their supervisors, colleagues, and subordinates;
- middle managers were sufficiently impressed by the productivity of training that they have been much more willing to release staff for technical training than they were previously, so that the overall volume of training has risen;
- additional formal training has been undertaken, including a formal management training program, initial training for university graduates entering the technical departments, and a customer relations course for all those dealing with loan applicants and depositors.

This list of effects should by no means be interpreted as suggesting that the problems identified in the audit have been resolved fully. Rather, the audit/training has had clear and positive impacts.

Executive Training

As noted earlier, the training in this area was either in housing finance issues per se or for broadening the perspective of those participating on how to help lower income households improve their housing. The impacts of this type of training are much more difficult to isolate than are those for corporate training. One clear effect for those attending training sessions dealing with low income housing was that it increased their receptivity to being involved in special projects dealing with this group. A side-effect of attending conferences in both the low income and financial areas worth noting is that HDFC private approach to providing housing finance was often viewed as novel and therefore attracted considerable attention. This in turn permitted the HDFC people to take a presenter role on occasion, with an attendant increase in self-awareness and confidence in the strategy which the corporation was taking. While it is not possible to document the effectiveness of the various training activities undertaken in this area, the team's sense is that the broadening and deepening of the staff involved was valuable and may have effected the overall achievements of the Housing Guaranty loan positively.

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Annex A
Objectives of HG-001 for India

The original Project Paper (1981) specifies the following Program Outputs, which seem to provide the best statement of intended objectives for the loan (pp.3-4):

1. "The first year's authorization will directly finance $20 million of housing units, all for families at or below RS 1,200 per month income. Since HDFC policy is to finance no more than 50 percent of corporate housing projects, an additional $20 million of housing units will be constructed as part of the overall financing package of which some portion will be used for lower income workers. Using the average cost of housing units financed under corporate loans in FY 1981 of RS 46,000 ($5,570) and allowing for an inflation factor of 15 percent, an estimated 6,000 units will be constructed as a result of the first $20 million HG.

"In FY 1982, it is possible that some individual units will be included for financing under the HG. If so, and with a 30 percent downpayment, the number of units financed may be somewhat smaller."

2. "The short-term technical assistance and training will result in increased capability of HDFC staff."

3. "The institutional output will be an expanded HDFC, operating more effectively, with an increased level of lending and with the reputation and capacity to attract and absorb higher levels of borrowing and deposits."

These latter two points are expanded upon in Section G.1 of the PP, i.e. Expected Achievements - Institutional (pp.15-16)

"a. Short-term: The major achievement that this program aims for is a strengthened HDFC which will be increasing the amount of funds it is raising from the domestic capital market and from depositors and, therefore, increasing its loan activity. To attribute some part of HDFC's increased level of activity directly back to the provision of HG financing other than that specifically contributed by the HG, i.e. a multiplier effect, would be difficult...

"b. medium- and long-term: Over the medium term, the objective will be to assist in increasing the scope of HDFC's operations from the level it is now at in terms of geographic coverage, in income levels reached and type of shelter financed and in its expanded variety and sources of debt obligations including deposits, loans, bonds, secondary market creation, etc.

"Over the long term, the objective is to contribute to the functioning of a country-wide housing finance system.

"c. Sustainability and Replicability: The whole premise on which this program is based, if valid, assures its replicability. That is, that a private sector institution can raise capital, both institutional and from individual savers, to finance housing for a wide range of income levels and on an unsubsidized basis drawing on the dynamism of the private sector."

The statement in the Logical Frameourk of the PP specifies the "magnitude of outputs" expected from the project in some detail **for all of HDFC's operations**. (That is, these are goals beyond the direct use of HG resources for assisting low incpme households.) In most cases it gives a five year goal and a two-yeat goal; since the loan disubrsement period turned out to cover a three year period, some interpolation between these goals and accomplishments is necessary.

output	**5-year ouput**	**2-year output**
1. increased resource availability to HDFC	$400 million	$110 million
2. increased number of low income beneficiaries	approx. one-third of all loan loan recipients will be low income	
3.expanded HDFC operations; offices & loan applic's processed	2 new branches yearly; 78,000 d.u.	2 new branches yearly; 32,000 d.u.
4.increased avail. in outlying areas	225 corporate loans; 22,000 benefitting HH	75 loans; 13,500 beneficiaries (10,000 w. HG resources)

(There is some inconsistency between the targets for the number of HG-assisted households listed here and those in the statement of objectives.)

The Project Paper for Phase II of HG-001 (June 1983) amended the objectives stated in the original PP in only one signficant way, i.e., in increasing the focus of HDFC's own resources on lower income households. This is most clearly stated in Section III.A of the PP --Phase II Program Objectives - Current Program.

"...Phase II of the current HG program, while continuing to support HDFC's institutional development and continued growth, also marks a shift in program emphasis toward increasingly more active pursuit by HDFC of accessing lower income clients. This pursuit however must be staged within the context of organizational realities. Adoption of a low income policy statement was clearly a necessary move in this direction. The next step [is] the development of a realistic action plan for policy implementation. This is to be a condition precedent to the borrowing of Phase II funds..."

Annex B
Key Dates and Exchange Rates in HG-001 for India

Sequence of events

First tranch

7/81 date for HDFC to disburse funds against loan

12/81 implementation agreement

1/83 loan executed

2/83 funds disbursed to HDFC

6/83 disbursed funds fully liquidated

Second tranch

8/83 implementation agreement

1/84 loan agreement signed and funds disbursed to HDFC

6/84 disbursed funds are fully liquidated

Applicable exchange rates

first tranch: Rs. 9.53 to $US 1

second tranch RS. 10.56 to $US 1

For purposes of this evaluation, we will use an exchange rate of Rs.10 to $US1 throughout.

Annex C
Note on Estimation of Median Household Income

Accurate data on the distribution of income is lacking in many developing countries. In India the problem of accuracy of data has been compounded by delayed reporting, so that the analyst has to adjust distributional data for a large number of years to obtain figures that obtain to the present time period.

In preparing the 1981 Project Paper the analysts relied up a World Bank sponsored survey in 1977 of household incomes done as part of an appraisal for a water and sewer project in Bombay[1]. The figures were updated to 1981 using the GOI estimated increase in the consumer price index between 1977 and 1981 (49 percent). This produced an estimate of median household income of 1,500 Rs. per month. Based on various judgements, it was decided that the corresponding figure for all urban areas was about 20 percent less than for Bombay -- or 1,200 Rs. per month. This figure has been used throughout HG-001 in determining the eligibility of households for HG-supported loans.

The most recent national income distribution data for India that has been thoroughly analyzed and released are for 1975-1976. A paper by Rao presents a full description of these data and revised urban and rural income distributions[2]. These data show a median annual household income in urban areas at the time of the survey of 5,040 Rs. or 420 Rs. per month. Inflating this number to 1981 Rs. using the CPI yields a median monthly income figure of 710 Rs. In 1984 values the 1,200 and 710 Rs. figures are, respectively, 1,560 and 923 Rs. Finally, one must note that these adjustments for inflation make no allowance for growth in real incomes over the decade from 1975 to 1984. In India it would appear that real per capita income has been on the order of 0.7 percent per annum.[3] Applying this rate on a compounded basis to the 1984 figures just cited, gives revised median monthly incomes of 1,672 and 989 Rs., respectively.

On the basis of these figures it would appear that the median houshold income in Bombay is about double (i.e., in 1981 Rs. 1500 vs. 710) the average value in other urban areas, rather than only 20 percent greater as used in arriving at the Rs. 1,200 figure. While there is no ground for disputing the accuracy of the median income figure being used for Bombay, the foregoing does suggest reason to question a 20 percent reduction of the Bombay figures to use for all urban India.

At the same time, one must be aware that there is very likely a good deal of between city variation in income levels, perhaps both by region of the country and size of place. Moreover, the fact that the basic income data being used are a decade old introduces enormous uncertainty into any such calculations. In particular, national income growth may have favored cities over the period making the higher income levels used in the project correct. For this reason it is difficult to argue for a change in the median income figure now being employed. However, the figure should be appropriately aligned as soon as new income data are available.

Lastly, the problems of comparing income data gathered in household surveys with those reported by HDFC loan applicants might be noted. There is a well-known pattern of underreporting of income in household surveys; households are understandably reluctant to reveal all of their income, despite promises that the information collected will not be used for tax and other purposes that could harm them. The HDFC loan applicant by contrast has a strong incentive to report all of his income: the greater his income the larger the loan for which he could qualify. These conflicting reporting patterns mean that there is strong tendency for comparisons of HDFC applicants' incomes with general income distribution data to overstate the relative income position of the applicants. Unfortunately, there is no way to estimate how large this error might be.

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1. **Staff Appraisal Report, Second Bombay Water Supply and Sewerage Project**, Washington, D.C.: World Bank, Report, no.1970b-IN, 1978.

2. V.V.B. Rao, "EPD Income Distribtuion Project: Data on Income Distribution in India," Washington, D.C.: World Bank, Economic and Social Data Division, Working Paper No. 1980-2, 1980.

3. Data on rates of population growth and in aggregate real GDP are from Tables 1.3 and 2.2(b) of the Statistical Annex of, World Bank, **Situation and Prospects of the Indian Economy - A Medium Term Perspective.** (Washington, D.C.: World Bank, South East Programs, 1984).

Annex D
Plan for Inspection of Units[a]

Purpose

The inspection of the units is to insure that the units were adequately constructed, i.e. free from gross deficiencies and that the property is capable of a life at least as long as the mortgage on the property, assuming proper maintenance. (The rough criteria of freedom from gross deficiencies is being used because of the considerable time, up to several years, which may have passed between completion of the unit and this inspection.)

The resources likely to be available for these inspections precludes inclusion of enough units to constitute a scientific sample with a reasonable standard error of the estimate. Rather, a small sample of units will be inspected, which will yield indicative information on this point.

Sampling plan

The units to be inspected will be drawn from the areas covered by the same branch offices that members of the evaluation team will visit, in order to provide reinforcing information on operations in each of these three areas. The three branch offices are: Pune, Bangalore, and Madras.

Corporation workers' housing. Inspections will be of the same projects which members of the evaluation team actually visit. It is anticipated that at least two projects will be visited from each branch office. The inspector should examine 3 to 5 units at each project, selecting different types of units for inspection. (The projects themselves will be selected on the basis of a combination of accessibility, number of units involved, and the proportion of units designed for occupancy by lower income households. The team will suggest projects which were financed with HG funds; and th team and HDFC will mutually agree upon those to be visited.) If more than two projects are visited by the team members, the inspector will select two projects from among those visited by the team.

Individual loans. The inspector will examine five separate structures involving individual loans from HDFC, i.e., if in a multiunit structure several units have HDFC loans, only one unit from the structure should be selected. The sample will be drawn randomly from sanctions on Agenda 1, i.e. those with low loan amounts. Those sample units selected which are too far from the branch office to permit the inspector to visit them efficiently will be replaced with other randomly drawn units.

Report

The inspector will prepare a report, organized by branch office and within each branch office by individual vs. corporate loans. For each unit inspected he will list its name, the type of loan involved, location, year built, a brief description of the condition of the unit, the presence of any serious deficiencies, and, in the case of the presence of such deficiencies, whether they can reasonably be attributable to poor construction and if they are of a nature that proper inspections during the construction process should have identified them and lead to their correction.

In addition, the inspector will provide a general estimate of the cost of USAID doing an inspection of dwelling integrity for each unit or project financed with Housing Guaranty funds. These costs should include only the actual cost of inspects, ignoring the cost to USAID of organizing and managing these inspections.

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a. This statement was prepared in the field and given to and reviewed with the AID engineer who did the actual inspections. It served as his terms of reference. The engineer visited the corporate projects in two of the three branch office areas with one other team member.

Annex E

--- Branch Office Interview Guide ---

Branch office:____________   Manager:___________________

A. Funds mobilization

1. Our understanding is that most branches make loans worth more money than they funds they take in in deposits. Is this true of this branch?

About what percent of the funds you lend do you collect in deposits?

Has this percentage been the same for the past several years or has it been changing? If it has been changing, are you becoming more or less dependent on Bombay for funds?

2.What methods do you use to raise deposits from corporations? [newspaper ads, flyers, personal visits, follow-up of possibilities sent from headquarters?]

Has the change in the regulation permitting HDFC to advertise for eposits made a difference in your overall marketing strategy?

Do you offer corporations special loan rates if they have deposits with your branch? How does this work, i.e. is there a minimum balance of CDs required, etc. What is the size of the reduction in interest rates to the corporations?

Are there other forms of preferential treatment given to corporations for loans if they are depositors?

3. What do you do to get households to deposits funds with the HDFC? Could you explain your approach in general?

[After the initial answer prompt, as appropriate, with the following: brokered deposits? do you give some sort of preferential treatment to depositors for mortgage loans?]

4. How do HDFC's rates compare with those of other insitutions in the area, with the rates available from informal lenders?

5. Among household accounts, what would you say is the average savings balance? Is there a large proportion of very small accounts? Are these accounts worth maintaining given the cost of servicing them?

B. Individual Loan Program

1. How do housebuyers find out about the availability of loans from this branch office of HDFC?

2. Do developers send potential housebuyers to you? Do you seek out developers who are building low cost housing and suggest that they tell their potential customers about HDFC loans?

Do you ever try to persuade developers to reduce the size or cost of housing units?

3. Does this branch have a program of outreach to smaller towns? When did it start? How many days per month has your staff spent on visits taking loan applications in smaller towns? How many loans have resulted? About what percent of your overall individual loan program during the same period did that represent?

Are the incomes of the borrowers in smaller towns lower than the incomes of borrowers in cities? Are the housing costs lower? If they are, is it because of lower land costs or different use of materials or other factors?

4. What are your most common reasons for turning down loan applications?

When an applicant can't afford the loan, what is your approach? Suggesting sources of larger downpayment? Recommending areas with lower land costs? Recommending building a smaller house?

5. How do you determine when a loan applicant can pay more than 25 percent of income for a loan? What is the highest you permit?

6. Besides visits to smaller towns, do you have any other program designed to reach more lower income homebuyers?

C. Corporate Loan Program -- General

1. How do you make contact with corporations interested in building worker housing? Do you seek them out or do they hear about HDFC and come to you?

2. What are you looking for when you review a loan application for worker housing? Do you give priority for certain types of applications? HDFC depositors? Applications with housing for workers in lower salary ranges?

3. When you discuss plans for worker housing with corporations do you try to persuade them to build smaller or lower cost units? To increase the number of units for lower salaried workers?

Have you ever rejected an application because the income levels for which the housing was being built were too high?

4. Do you think you could persuade corporations to build more housing for lower salaried workers if you offered an interest rate dependent on the cost of the units (like your scaled interest rate structure for individual loans)?

5. How much additional demand for corporate worker housing do you think there is in the area covered by this branch office? How much of this kind of business do you expect to do over the next three years, compared with the last three?

D. Questions on Each Corporate Project Visited

1. Please tell me about the _______________. The records I have seen show it having the following characteristics (use information sheet for each project). Is that correct?

2. If you were involved in reviewing the project before it was approved, what made you think it would be a good project?

What do you think the outlook is for this industry in this area? For example, is the demand for the product strong? Do you foresee labor problems with this industry or problems with government regulation?

What about this firm? Is its outlook good?

Did you have any discussions with the corporations on the size or cost of units or on the income levels of the workers for whom the housing was being built?

Did you discuss the possibility of making this a line-of-credit loan in which the corporation would on-lend the money for workers to buy the houses?

3. Is this project in an area designated as a backward area by the GOI or the state government?

Do you think the worker housing was essential for getting workers to agree to locate here? Workers at all salary levels for which the housing is provided?

Where would the workers have lived if this housing had not been built?

Without the HDFC loan, do you think the corporation would still have built the housing? Some of it or all of it?

E. Training

1. Did you participate in the training program conducted for HDFC employees by the Institute for Financial Education last year?

How effective do you think this training was, i.e. do you think that HDFC is operating better now because communcations among the staff is better, because central office and branch office relationships are better, and so forth?

Did you personally learn much from attending the sessions? Can you give me an example of how you have changed your work practices because of what you learned at the training session?

2. Have you participated in other training exercises while you have been at HDFC? which? How would you rate their effectiveness?

3. What special advice or training have you received about dealing with lower income mortgage loan applicants? Has this dealt with how to attract such applicants as well as how to help them qualify for a loan?

Have you given special instructions to your staff about dealing with lower income applicants? What type? Is it now part of the standard, formal training for new loan service officers?

4. In your opinion what is the greatest existing need for training, not only for branch managers like yourself, but for the staff in general?

F. Decentralization of authority

1. Do you have the authority (without obtaining explicit review from the central office) to:

   a. approve individual loans
   b. approve corporate (workers' housing) loans
   c. hire clerks and underwriters; dismiss junior level staff

2. Do you have any training resources under your control. For example, can you authorize some time off for an employee to take a job-related course at a local institution? Can you authorize payment of training course fees?

3. How is the marketing strategy for attracting funds for this branch developed? Do you prepare a plan and submit it to Bombay or what?

4. Would you say that branch managers have about the right amount of latitude in making decisions? If there are areas of change needed, which do you think are the most important?

G. Inspection of dwellings during construction

These questions concern the procedures that your office uses in making sure that units are properly constructed. They concern both individual loans and corporate loans for worker' housing; so when answering please distinguish between the two, if the procedures are different.

1. At what point in the construction process, if any, does an HDFC building inspector go out to the site and examine the quality of the construction work?

Is this person on the HDFC staff or is he under contract to HDFC?

What are the qualifications of the inspectors you use?

2. Is the local government also responsible for inspecting the units during construction? Which government is this?

Do these inspections occur at the same points in the process as do the HDFC inspections or at other times?

In your personal opinon, based on your experience over the years, do you believe that the government officals always do the inspections that are supposed to be required? If not, how often do you think that they skip one or more of the required inspections?

How much do the procedures we have just been discussing vary among local government jurisdictions?

H. Appraisals

1. As part of the standard underwriting process, I understand that an HDFC appraiser examines the property in question to determine what its value is or will be after the dwelling is built. Sometimes the actual value of the unit exceeds the sales price, in order to avoid taxes. Do you have a rough idea, on average, of the difference between the full value and the sales price? For example, would the sales price be 75% or 50% of the full value?

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<u>Questions for Corporate Official Interviews at the Housing Project Site</u>

Project name____________________________________

Information from AID/RHUDO files

___ units ____ sq.meters________cost/unit___________incomes

___ units ____ sq.meters________cost/unit___________incomes

___ units ____ sq.meters________cost/unit___________incomes

___ units ____ sq.meters________cost/unit___________incomes

___ units ____ sq.meters________cost/unit___________incomes

1. I understand you have the following size units (describe using sq. meters. Are there other units financed by the HDFC loan that I've missed? (Add in).

2. Please tell me some other things about these units.

How many rooms?

What kind of sanitary facilities?

Construction materials?

Bachelor units or for families?

Number of people living in each type of unit?

3. For each type of unit, can you tell me:

(Note: Don't repeat file info -- looking for independent answer)

a. the job titles or job descriptions of the workers who are living in the units;

b. their salaries or salary ranges?

4. For each type of unit, how many of the workers living in the units are local people and how many came from somewhere else?

If you had not built this housing, would you have been able to find workers? Where would the people who live in this housing be living instead if they are local people? If they came from outside this area, what kind of housing would they have been able to find?

5. Do you maintain the units (e.g., painting, repairs) or do the occupants do this? **(Note observation on condition of units.)**

6. Do workers who do not live in the corporation's housing receive a housing allowance? How much?

Questions 7-11 are on rental projects.

7. Do the occupants of this housing pay rent? How much?

Who pays for the electricity?

8. Do you offer the occupants an opportunity to buy the units if they want? How does that work?

9. When you planned this housing and discussed the loan with HDFC, did you ever consider having the workers buy the units with some sort of subsidy or guarantee from the corporation? Why didn't/wouldn't that have worked?

10. What happens when a worker leaves the company but still wants to stay in this area and live here?

11. What happens when the worker retires?

Questions 12-15 are on homeownership projects.

12. What are the terms under which the occupants are buying the units?

13. Are you providing a subsidy or is the cost of the units being fully recovered from the workers who buy them?

14. Why did you decide to make this a homeownership program rather than having the corporation own the housing?

15. Do you have some workers for whom a homeownership program would not work? Where do they live? Do you have any plans for providing housing for them?

Ask questions 16-19 for all projects.

16. Besides housing, does the corporation provide or sell other consumption items to the workers? Where do the workers shop for food, clothing, etc.?

17. If the HDFC loan had not been available, would you have acquired the funds to build this housing from some other source? (Probe: intercorporate loans, HUDCO, ICICI, etc.)

18. How does the HDFC loan rate compare with rates for other sources of funds?

19. Do you have plans for expanding the amount of worker housing you provide? If so, will this cover more of your current workers or be part of an expansion of your operations?

Do you hope to help finance this additional worker housing with an HDFC loan?

memorandum

DATE: March 25, 1985

REPLY TO ATTN OF: Y.P. Kumar - PD

SUBJECT: Evaluation of Housing Guaranty Loan 001 to India, The Housing Development Finance Corporation (HDFC)

TO: Mr. Robert W. Nachtrieb - PD

A. INTRODUCTION

The evaluation team consisting of Ms. Jill Khadduri and Messrs Raymond J. Struyk (leader), Robert Buckley and Y.P. Kumar visited HDFC's headquarters at Bombay and branch offices and various housing sites at Bangalore, Madras and Poona from March 7-21, 1985. Ms. Viviann Petterson assisted the team. This report pertains to the engineering review of the HDFC program which I carried out as part of the evaluation.

B. OBSERVATIONS AND FINDINGS

The team visited two company sites (corporate loan program) each at Bangalore and Madras, and three at Poona. The number of units inspected were 15, 18 and 22 respectively. The number of units inspected under individual loans were five in Bangalore, seven in Madras and eight in Poona. The total number of units inspected, both under corporate and individual loans, is 75. Random selection of sites were made at the above three branches. The inspection was carried out with special attention to the quality of building materials used, and quality of civil, electric, plumbing and sewerage disposal works.

FINDINGS

1. All buildings were found to be structurally sound.

2. The construction quality was found to be generally good.

3. All necessary facilities such as electric supply, plumbing and sewerage disposal were found to be in place and functioning satisfactorily.

4. Construction was found to have been carried out with generally accepted specifications in India and sound engineering practices.

5. The residential units being constructed for lower income borrowers were well designed, functional and had proper air circulation.

6. In addition to the above, I reviewed HDFC files for 24 loans for corporate sector housing and 30 for individual loans. It was found that loans were fully secured mostly by mortgage of property, and in few cases under corporate loans, by pledging of equity shares. In some cases HDFC makes disbursement against a bank guarantee furnished by the corporate sector borrower if there is delay in creation of a mortgage due to legal formalities. The bank guarantee remains valid until the creation of a mortgage. Additional securities such as pledging of shares, fixed deposits, insurance policies etc. are also taken for individual loans. It was also found that an in-depth appraisal, including engineering aspects, is made before any loan is sanctioned to protect the interests of HDFC. It was found that the loans given by HDFC are adequately secured.

7. For the corporate sector, the buildings are designed and plans are prepared by reputed architects, and construction supervision is carried out by a full time architect's resident engineer and civil engineers of the company. For individual loans, a privately engaged architect or builder's architects design the buildings. The contractors carry out the construction under the supervision of builder's engineers in the case of multi-story buildings and/or single-story complexes. The builders have considerable experience in building construction. Designs and construction supervision of the dwellings were found to be adequate.

C. CONCLUSION

It would appear that there is no need for USAID to perform engineering inspection of HDFC units to be financed under HG-002; it is possible for AID to rely on HDFC's own extensive internal checks and balances for adequate construction quality.

Clearance: PD:GPVarshneya

Annex G
Site Selection for Visits to HDFC Branch Offices

The site visits had two primary objectives:

(1) to gain additional information on firm's policies and practices beyond that available from written policy statements and interviews with key staff in Bombay;

(2) to visit several worker housing projects to make direct observations on the housing quality and occupancy and to interview corporate officials on the company's housing policies.

The team, therefore, determined to visit as wide a range of branch offices and corporate projects as the time constraints of the project would permit and to choose branch offices and sites with a minimum of guidance from HDFC.

The first step was to eliminate branch offices with very small individual loan programs (e.g., Cochin) or too distant for a 48-hour trip from Bombay (Calcutta).

Bombay and Dadar (a suburb of Bombay) were eliminated because of the team's extensive opportunity to interview HDFC staff in Bombay and to visit HDFC-financed projects in the Bombay area.

Next the team made a detailed review of the files kept by AID/RHUDO of all corporate projects approved for disbursement under HG001. With the aid of a map, several corporate projects were selected within the jurisdictions of three branches: Pune (eastern Maharashtra), Bangalore (Karnataka), and Madras (Tamil Nadu).

Within the list of projects for each branch, projects were put in priority order based on such considerations as number of units approved for HG001 and salary ranges of occupants. The team wanted to concentrate on projects in relatively remote locations, but also to include one or two projects where the workers would eventually own the units.

HDFC recommended a modest number of changes to the lists -- e.g., in one case the project had not been built yet, while another project was more than a day's trip by car from the nearest airport. Otherwise, HDFC staff arranged for visits to the corporate projects requested by the team, including interviews with corporate officials. Team members also had ample opportunity to interview the HDFC branch managers and to visit units financed by individual HDFC loans.

Interview guides used by the team can be found at Annex E.