

TAR: IND 38650

**Technical Assistance to the  
National Housing Bank and the  
Housing Development Finance  
Corporation of India for a Study  
on the Development of an Agency  
to Facilitate Issuance of Residential  
Mortgage-Backed Securities  
(Financed by the Government of  
Switzerland)**

February 2005

## CURRENCY EQUIVALENTS

(as of 9 February 2005)

Currency Unit – Indian rupee/s (Re/Rs)

Re1.00 = \$0.0229

\$1.00 = Rs43.7

## ABBREVIATIONS

ADB	–	Asian Development Bank
GDP	–	gross domestic product
HDFC	–	Housing Development Finance Corporation
HFCs	–	housing finance companies
NHB	–	National Housing Bank
PPTA	–	project preparatory technical assistance
RBI	–	Reserve Bank of India
RMBS	–	residential mortgage-backed securities
CSP	–	Country strategy and program
TA	–	technical assistance
US	–	United States

## TECHNICAL ASSISTANCE CLASSIFICATION

<b>Targeting Classification</b>	–	General intervention
<b>Sector</b>	–	Finance
<b>Subsector</b>	–	Housing finance
<b>Theme</b>	–	Sustainable economic growth; private sector development
<b>Subtheme</b>	–	Promoting economic efficiency and enabling markets; private sector investment

## NOTES

- (i) The fiscal year (FY) of the Government of India ends on 31 March. FY before a calendar year denotes the year in which the fiscal year ends, e.g. FY 2004 ended on 31 March 2004.
- (ii) In this report, "\$" refers to US dollars.

This report was prepared by W. Willms (team leader) and M. Tornberg.

## I. INTRODUCTION

1. The National Housing Bank (NHB), India's government-owned mortgage refinancing institution, and the Housing Development Finance Corporation (HDFC), India's leading housing finance institution with majority private sector ownership, have applied to the Asian Development Bank (ADB) for technical assistance (TA) to further develop India's mortgage market. Both want to explore sponsorship, jointly with ADB, for the establishment of a new entity that will provide credit enhancement and an issuance/trading window for residential mortgage-backed securities (RMBS) as an effective source of refinancing for home mortgage lenders in India. The Government of Switzerland has agreed to fund \$250,000 of the cost of the TA.<sup>1</sup> Since the TA was not included in India's Country Strategy and Program (CSP), separate concept clearance has been obtained.<sup>2</sup>

2. Several missions were fielded in 2003 and 2004 to reach agreement on the scope of the TA with the counterparties, and concurrence was obtained between all three parties with respect to all aspects of the TA, including the TA framework (Appendix 1). Consistent with the Agreement Establishing the Asian Development Bank, the Government of India (Government) will be requested to confirm that it has no objection to the proposed TA to NHB and HDFC. In addition, the Government will be asked to confirm that Section 3.01 (b), and the assurances relating to the extension of privileges, immunities and exemptions of ADB consultants in paragraphs 7 through 9 of the Schedule to the Technical Assistance Framework Agreement, dated 10 July, 1996, between the Government and ADB apply to any ADB consultants under the TA (Extended No-objection). No activities under the TA will commence and no TA consultant will be contractually engaged by ADB unless and until the Government Extended No-objection has been obtained.

## II. ISSUES

3. **Indian Housing Market Challenges.** India faces a considerable challenge to provide adequate housing for its increasing urban population. While the housing mortgage market in India has grown rapidly in the past few years—driven by an expanding economy, increasing consumer wealth, stable property values, and falling interest rates—the penetration of mortgages relative to gross domestic product (GDP) is still low in India (at about 2% of GDP) compared to other countries in similar stages of economic development or other countries within the Asian region (e.g., Indonesia is at 8% and Thailand at 13%, while the more developed Taipei, China is at 25% of GDP). The reason is an underdeveloped housing finance market. Lenders remain vulnerable to significant credit, liquidity, and interest rate risks. As a result, housing finance is relatively expensive and often rationed. The importance of developing robust systems of housing finance is paramount for emerging economy governments that struggle to cope with population growth, rapid urbanization, and rising expectations from a growing middle class.

4. India's mortgage market has historically been dominated by housing finance companies (HFCs). Recently, commercial banks have entered the market. HFCs are more competitive in terms of origination and reaching underserved segments, but face higher costs and tighter liquidity constraints compared to the commercial banks that have better access to funding but tend to focus on larger loan sizes. The question is whether the availability of an assured matching funding source—e.g., by way of securitization—would encourage the entry of new

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<sup>1</sup> The TA was first listed in the *ADB Business Opportunities* (Internet edition) on 13 December 2004.

<sup>2</sup> Concept clearance was obtained in February 2005.

HFCs that would expand the availability as well as demand for housing finance for low- and middle-income families.

5. In many, more developed, economies, the capital markets provide an attractive and large source of long-term funding for housing finance. The development of securitization technology especially (see Appendix 2 for a description of securitization in general) has enabled banks to take advantage of various financing benefits, as securitization (i) provides for regulatory capital relief for the securitized assets that can be used to make new loans; (ii) lowers the bank's overall interest expense as the issued (secured) securities obtain higher ratings than the general (unsecured) corporate debt of the originators, further enabling the bank to make new investments and loans; and (iii) improves the bank's performance metrics, making it more attractive to both domestic and foreign investors, which in turn gives the bank better access to capital and lowers its financing cost.

6. The issuance of RMBS<sup>3</sup> has provided the primary home mortgage lenders in more developed economies with consistent availability of funds in varying economic conditions. RMBS allow lenders to better manage their long-term funding needs and associated interest rate risks. In addition, mortgage securities are pursued to develop and diversify fixed-income markets as a supplement to government bonds for institutional investors. In the United States (US), over 60% of all mortgages get securitized.

7. In India, the secondary market for mortgages is in its infancy. The Indian mortgage market is characterized by bilateral customized transactions, with a limited investor base, mainly because of the prevailing regulatory conditions (Appendix 2 outlines some of the regulatory hurdles that are constraining the growth of a robust RMBS market). However, even with the much needed regulatory improvements<sup>4</sup> in place, it is likely that RMBS issues will require external credit enhancement to be attractive alternatives to government securities for long-term institutional investors (such as pension funds, which are generally risk averse). This is due to the fact that, while the securitization market (on the surface) has grown rapidly since a pilot issue by NHB in 2000—three pools worth Rs14.1 billion (approx. \$320 million) were securitized in 2002–2003 and 11 pools worth Rs23.4 billion (approximately \$530 million) in 2003–2004, and growth of RMBS issuance is expected at more than 50% per year until 2006<sup>5</sup>—it is acknowledged that neither the pilot securitization by NHB nor the recent issues by other market participants would meet the “true sale”<sup>6</sup> test under the Basel II norms, and therefore would not qualify for off-balance sheet treatment for capital adequacy purposes, as originators retain the junior tranches. Without true sale, assets are not bankruptcy remote, so the ratings are capped at the level of the originator. Only with external credit enhancement can the ratings pierce the originator's rating ceiling and attract long-term institutional investors.

8. Currently, India does not have such an external credit enhancement agency or secondary mortgage securitization institution (e.g. similar to Fannie Mae in the US) that would support the issuance of RMBS and a secondary trading market to provide investors with viable

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<sup>3</sup> Broadly defined to include mortgage-backed bonds issued by specialist agencies.

<sup>4</sup> The Government fielded a working group on securitization in 2000, the recommendations of which are still awaiting full implementation. Government support for implementation will be a key issue to assess under the TA.

<sup>5</sup> Estimate by CRISIL Ltd., the main rating agency for securitization in India.

<sup>6</sup> The assets that are being securitized have to be transferred from the originator to the issuing special-purpose vehicle in a manner that is opposable against the originator and any creditors of the originator in case of its bankruptcy, to ensure that its assets do not fall into the bankruptcy estate of the originator or are subject to any applicable moratorium provisions—“bankruptcy remote.” In other words, investors buy the credit risk of the securitized (transferred) asset pool and not the general corporate risk of the originator.

exit options. Therefore, NHB, HDFC, and ADB are discussing a possible cooperation to launch such an initiative through equity participation, subject to confirmation of a viable business model. Citibank and State Bank of India<sup>7</sup> have also expressed interest in joining as equity partners in this initiative.

9. **Link to ADB Strategy.** The development of urban infrastructure has been identified as a key component for social development, human poverty reduction, and environmental protection in India's CSP.<sup>8</sup> Private sector development is identified as a strategic focus area to achieve some of the CSP objectives, including financial sector interventions to improve financial intermediation and resource mobilization, policy reforms to remove impediments to private investment, and public-private partnerships and investment in projects that facilitate private investment.

10. In 2000, ADB funded TA<sup>9</sup> to develop the Indian long-term debt market. Many of the recommendations under this TA (3473-IND) related to the infrastructure for trading in debt instruments.<sup>10</sup> This is no longer a constraint, evidenced by the fact that the government securities market is robust with active trading. The lack of depth in the corporate bond market because of the narrow investor base was also noted, and partly ascribed to the public sector ownership of banks, insurance companies, and pension funds. The ownership is not, however, currently considered to be as big a problem as are the investment guidelines for the insurance/pension funds (known as provident funds).<sup>11</sup> Availability of RMBS, of credit quality close to that of government securities, would make a strong argument for the provident funds to diversify their holdings, with investment parameters driven more by credit quality rather than the public-sector status of the issuer. The study carried out under the TA also identified institutional support to provide a window for secondary market trading as an important factor to develop the corporate bond market.

11. Under Part D of ADB's Housing Finance Project II (HFP II),<sup>12</sup> a study (PPTA 3288) was envisaged on expanding the capital market for housing finance. This was subsequently dropped, as provision of market-based housing financing was not considered viable to address the housing requirements for the poorest section of society.<sup>13</sup> Instead, a small-scale TA was proposed to strengthen NHB's capacity in the area of asset liability management and mortgage securitization. Under this TA (3732), NHB staff underwent training in securitization by Fannie Mae. The current study will build on the knowledge gained by NHB, as its representatives would be part of the steering committee for this study. The policy reform area under HFP II also included analyzing the findings and lessons learned from the first pilot securitization by NHB.<sup>14</sup>

<sup>7</sup> The largest commercial bank in India. Although publicly listed, government ownership is more than 50%.

<sup>8</sup> ADB. 2003. *Country Strategy and Program (2003–2006): India*. Manila (April 2003, p. 15, Fig. 7; and p. 30).

<sup>9</sup> ADB. 2000. *Technical Assistance to India for Development of Secondary Debt Market*. Manila.

<sup>10</sup> Clearing and settlement systems, and macro issues for regulators on interest rates and public debt.

<sup>11</sup> The provident funds provide a guaranteed return set by the central Government and therefore are driven more to meet the targeted return by investing a large proportion in higher yielding state government securities despite their poor credit quality, since this is permissible under the current investment guidelines. Assistance for pension reform is in the pipeline of both ADB and the World Bank.

<sup>12</sup> ADB. 2000. *Report and Recommendation of the President to the Board of Directors on Proposed Loans to India for the Housing Finance Project II*. Manila (loans 1759/1760/1761-IND, for \$300 million).

<sup>13</sup> The monthly income level specified of Rs7,079 (approximately \$161) for the beneficiaries under this project limited this to slum networking subprojects of local governments.

<sup>14</sup> The midterm review is currently in progress and so a report of the findings is not yet available.

### III. THE TECHNICAL ASSISTANCE

#### A. Purpose and Output

12. The purpose of the TA is to develop a mechanism for issuance of “true sale” RMBS in India for providing matched funding to both bank and nonbank institutions to ensure sustainability of important delivery channels, including those that specialize in low-value, high-volume lending segments, through setting up of a credit enhancement agency/secondary mortgage institution (Agency), similar to Fannie Mae in the US, which could undertake one or several of the following roles (depending on the outcome of this study): (i) mortgage securitization, (ii) RMBS credit enhancement, and (iii) RMBS trading or market-making. The output will consist of: a feasibility study, a comprehensive business plan, an implementation plan, and an investor prospectus. The feasibility study and business plan will be used by NHB, HDFC and ADB to gauge the potential for jointly establishing the Agency. Appendix 1 outlines the framework for the TA.

#### B. Methodology and Key Activities

13. The key activities of the TA are: (i) assessment of the Indian RMBS market's potential and its legal and regulatory situation; recommending identified policy changes; and estimating the financial risk/return for potential investors in the Agency; (ii) formulation of a comprehensive business plan for the Agency including a proposal for optimal shareholder- and organizational structures; (iii) formulation of a time-bound action plan for the creation of the Agency; and (iv) preparation of an investor prospectus and a list of potential investors.

14. The review of the current RMBS market, associated regulations and policies, institutional framework and the identification of the gaps vis-à-vis the needs of issuers and investors will be based on industry reports/publications available publicly or with ADB, NHB, and HDFC, and interviews with key industry participants, and relate to the securitization experience in developed economies and elsewhere in Asia. A stakeholder conference will be organized after completion of the preliminary report to enable the formulation of a consensus-based implementation plan.

#### C. Cost and Financing

15. The total cost of the TA is estimated at \$320,000 (detailed cost estimates and financing plan are in Appendix 3), to be financed on a grant basis by the Government of Switzerland up to \$250,000, and administered by ADB. The grant is expected to cover the full foreign exchange component of \$125,000 and \$125,000 of the local currency cost. It will cover, on a lump-sum basis, the consultants' fees and out-of-pocket expenses including their cost for coordinating the stakeholder workshop. Counterpart cost sharing of \$70,000 equivalent will provide for office accommodation and transport, travel cost and remuneration for counterpart staff, and other expenses.

#### D. Implementation Arrangements

16. An international consulting firm will be recruited using biodata technical proposals under the quality- and cost-based selection method under an output-based contract, in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory for the engagement of domestic consultants, to carry out the study during a period of 5 months (outline terms of reference are in Appendix 4). TA completion is expected by November 2005, with

delivery of the preliminary study before, and the final report after, the stakeholder workshop, planned for August 2005. Dissemination will be among the stakeholders and to selected prospective investors. The TA will be executed by ADB in coordination with NHB and HDFC. A steering committee comprising representatives from each institution will review monthly progress. The Government of India will be represented by NHB as the government-owned agency principally responsible for providing full support to HFCs and formulating schemes for mobilizing resources for housing. NHB is under the administrative control of the Reserve Bank of India, and its participation will facilitate standardizing lending criteria and loan documentation, as it is today the only secondary mortgage finance institution in India.

#### **IV. THE PRESIDENT'S DECISION**

17. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$250,000 to the National Housing Bank and the Housing Development Finance Corporation of India, to be financed on a grant basis by the Government of Switzerland for a Study on the Development of an Agency to Facilitate Issuance of Residential Mortgage-Backed Securities, and hereby reports this action to the Board.

### TECHNICAL ASSISTANCE FRAMEWORK

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p><b>Goal:</b> Increase home ownership that directly improves living conditions and quality of life by expanding availability of housing finance.</p>	<p>Growth of housing stock.</p>	<ul style="list-style-type: none"> <li>• Ratio of home mortgage finance outstanding to gross domestic product.</li> <li>• Relative growth of home mortgage financing.</li> </ul>	
<p><b>Purpose:</b> Development of a mechanism for issuance of “true sale” residential mortgage-backed securities (RMBS) in India for providing matched funding to both bank and nonbank institutions to ensure sustainability of important delivery channels, including those that specialize in low-value, high-volume lending segments, through setting up of a credit enhancement agency/secondary mortgage institution (Agency).</p>	<p>Establishment of the Agency.</p>	<p>Value of RMBS placed with investors.</p>	<p><b>Assumption</b> Government commitment for timely implementation of required policy changes.</p> <p><b>Risk</b> Obtaining all regulatory approvals.</p>
<p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• A feasibility study including recommendations for policy/regulatory development and for establishing the Agency;</li> <li>• A comprehensive business plan for the Agency;</li> <li>• An implementation plan; and</li> <li>• An investor prospectus and a list of potential investors.</li> </ul>	<p>Stakeholder consensus to pursue the recommendations.</p>	<ul style="list-style-type: none"> <li>• Commenting on preliminary study and final report.</li> <li>• Stakeholder workshop.</li> </ul>	<p><b>Assumption</b> Stakeholder input.</p> <p><b>Risk</b> Capacity of the consultants engaged.</p>
<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>• Assessment of the Indian RMBS market and its legal and regulatory environment;</li> <li>• Formulation of a comprehensive business plan for the Agency;</li> <li>• Formulation of a time-bound action plan for implementation.</li> <li>• Preparation of a prospectus for investment and a list of potential investors.</li> </ul>	<p>Completion of the studies/reports.</p>	<p>Monthly reviews by the steering committee.</p>	<p><b>Assumption</b> Access to information and market participants and stakeholders.</p>
<p><b>Inputs:</b></p> <ul style="list-style-type: none"> <li>• Output-based consulting services.</li> <li>• Stakeholder input/workshop.</li> </ul>	<p>Execution of the contract.</p>		<p><b>Risk</b> Identification of consultants.</p>

## **DESCRIPTION OF SECURITIZATION AND REGULATORY CONSTRAINTS IN INDIA'S RESIDENTIAL MORTGAGE-BACKED SECURITIES MARKET**

### **A. Description of Securitization**

1. In its simplest form, securitization is a process whereby the revenue stream on a segregated pool of receivables or other income producing (mostly financial) assets owned by an original lender or commercial enterprise (originator) is repackaged into tradable securities issued to investors. The receivables are sold by the originator to a specially incorporated, off-balance sheet company or trust, known as a special-purpose vehicle (SPV). In return, the SPV will generally pay a purchase amount equal to the (par or net present) value of the receivables and with limited recourse or no-recourse against the originator for nonperformance of the underlying debtors.

2. The SPV will be structured to control its income and expenses so that it will be "bankruptcy remote." The SPV will fund the purchase of the receivables through the issue of debt securities to investors, which will be secured on the receivables by virtue of a security interest granted to a security trustee acting for the investors and other creditors.

3. The originator (or an associated company) may continue to act as the servicer in collecting and administering the receivables as an agent of the SPV, who in turn will apply the income from the receivables to make payment of principal and interest under the debt securities as well as transaction expenses. A standby servicer may also be arranged in case the originator fails to perform its servicing obligations. Funds received by the SPV in excess of those required to pay investors are generally channeled back to the originator.

4. Various forms of credit and liquidity enhancement will be used and structured into the transaction cash flow to ensure that payments on the debt securities issued to the investors are made in full and on a timely basis. Consequently, the recourse of the investors is usually limited to (i) the receivables, (ii) the transaction cash flow, and (iii) the credit enhancement incorporated in the securitization structure.

5. A high credit rating (usually higher than that of the originator) on the debt securities and therefore cheaper funding can be obtained by reason of the quality of the receivables, the isolation of the receivables from the other risks of the originator's business (by arranging a "true" sale of the receivables from the originator to the SPV) and the arrangements for credit enhancement and liquidity support.

### **B. Regulatory Constraints in India's Residential Mortgage-backed Securities Market**

6. Listed below are certain key regulatory constraints in the Indian RMBS market as identified by the Private Sector Operations Department:

- (i) Restrictions on RMBS as an eligible investment by provident funds, insurance companies—in the same category as government securities;
- (ii) The securities (or the pass-through/pay-through certificates) issued by SPVs would need to be notified as securities under the Securities and Contract Regulation Act to allow for trading under the debt segment of the stock exchange;

- (iii) Lack of liquidity support for secondary market trading of RMBS given that these do not have the status of “reserve” securities that encourages trading by commercial banks;
- (iv) Lack of clarity as to whether the SPV that holds the securitized assets can be created under the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002—which will give the SPV the benefit of a speedy foreclosure process;
- (v) Lack of clarity on guidelines as well accounting policies for treatment of the subordinate tranche/over collateralization retained on originators balance sheet (both with respect to taxation and capital adequacy requirements); and
- (vi) Unresolved tax issues:
  - (a) The originator should be allowed to issue tax related certificates to the borrowers under section 88 and 24(b) even after sale/securitization of the mortgages so that benefits of Section 88 and Section 24(b) of the Income Tax (IT) Act continue to be available to the borrowers;
  - (b) The benefits of Section 36(1)(viii) under the IT Act should include the income arising out of securitized loans for the lenders, as the source of such income is the housing; and
  - (c) SPVs should not be taxed, as all revenues flow through to the different classes of instruments.

**COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
<b>A. Government of Switzerland Financing<sup>a</sup></b>			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	60.0	0.0	60.0
ii. Domestic Consultants	0.0	70.0	70.0
b. International and Local Travel	25.0	15.0	40.0
2. Stakeholder Conferences	30.0	30.0	60.0
3. Contingencies	10.0	10.0	20.0
<b>Subtotal (A)</b>	<b>125.0</b>	<b>125.0</b>	<b>250.0</b>
<b>B. NHB and HDFC Financing</b>			
1. Office Accommodation and Transport	0.0	10.0	10.0
2. Travel and Per Diem of Counterpart Staff	0.0	45.0	45.0
3. Others	0.0	15.0	15.0
<b>Subtotal (B)</b>	<b>0.0</b>	<b>70.0</b>	<b>70.0</b>
<b>Total</b>	<b>125.0</b>	<b>195.0</b>	<b>320.0</b>

NHB = National Housing Bank, HDFC = Housing Development Finance Corporation.

<sup>a</sup> Administered by the Asian Development Bank.

Source: Asian Development Bank estimates.

## OUTLINE TERMS OF REFERENCE FOR CONSULTANTS AND DRAFT STUDY TABLE OF CONTENTS

### A. Outline Terms of Reference for Consultants

1. An international consulting firm (Consultants) will be selected for an output-based contract. It is envisaged that the Consultants will have (i) top tier experience in business strategy and business plan formulation; (ii) financial and capital markets expertise, particularly in housing finance and securitization; (iii) full familiarity with the proposed Basel II regulatory requirements; (iv) an in-depth understanding of the Indian capital markets and housing finance sector; and (v) capability to undertake or to outsource preliminary legal, regulatory, tax and accounting reviews.

2. Under the output-based contract, the Consultants will have discretion in team composition and person-day allocation, but it is envisaged that the team will consist of international and Indian experts in each relevant field.

3. The review of the current RMBS market, associated regulations and policies, institutional framework and identifying the gaps in the needs of issuers and investors will draw on the Consultants' international and domestic expertise, be based on industry reports/publication available publicly or with the Asian Development Bank, National Housing Bank, and Housing Development Finance Corporation, and interviews with key industry participants and government representatives, and relate to the securitization experience in developed economies and elsewhere in Asia. Key tasks include:

- (i) Assess the Indian RMBS market:
  - (a) Quantify short (1–2 years), medium (3–5 years) and long term market potential;
  - (b) Identify current constraints to market growth related to demand, supply and competition:
    - Issues with regards to demand for mortgages;
    - Mortgage originator issues;
    - RMBS servicer issues;
    - RMBS investor issues; and
    - RMBS issuer issues
  - (c) Identify constraints/market factors particular to India;
  - (d) Outline key features to maximize the short-, medium- and long-term competitive positioning of an RMBS instrument for Indian and international institutional investors;
- (ii) Assess (a) the legal, tax, accounting, and regulatory environment for issuance of domestic and cross-border RMBS and (b) the establishment of the Agency (as defined below), under the SARFAESI Act, 2002, or other Indian laws and regulations as applicable, including Government commitment to address identified impediments under (a) and (b) above;
- (iii) Develop a business plan and cost-benefit analysis for an agency (Agency), similar to Fannie Mae in the US, which could undertake one or several of the following roles (depending on the outcome of this study): (a) mortgage securitization, (b) RMBS credit enhancement and (c) RMBS trading or market making;
- (iv) Formulate recommendations for implementation with regard to:

- (a) Government policy formulation;
- (b) Removal of legal and regulatory constraints as identified above;
- (c) Adaptation of RMBS instrument and the Agency to function during an interim period until such legal and regulator constraints are removed;
- (d) Tailoring of the RMBS instrument and the Agency based on market factors to maximize enlargement of the base of issuers and investors, both domestic and international;
- (e) Implementation of the business plan, including
  - Optimal organizational structure;
  - Capitalization;
  - Shareholding structure;
  - Proposed shareholders; and
  - Other aspects
- (v) Formulate a stakeholder-consensus-based time-bound action plan for implementation;
- (vi) Based on scenario analyses, estimate expected financial return on investment for prospective investors;
- (vii) Prepare an information memorandum for investment in the Agency;
- (viii) Prepare a list of potential investors, based on optimal capitalization and shareholding structure, including assessment of the benefit of shareholding by each of the proposed investors; and
- (ix) As determined by the Steering Committee (as defined below) or ADB, undertake other related tasks as may arise from time to time.

4. **Output/Reporting.** At the inception of the TA, the Consultants will submit a work plan and a project timeline including scheduled monthly meetings with a Steering Committee comprising representatives of NHB, HDFC and ADB (Steering Committee). After 3 months the Consultants will prepare a draft preliminary study (see part B for the draft study table of contents) for review by the Steering Committee, and a final preliminary report within one month thereafter, incorporating the comments from the Steering Committee.

5. After finalization of the preliminary report (including feasibility aspects of the Agency), the Consultants will present to ADB, NHB and HDFC their findings. Depending on the outcome of this preliminary report, the consultants will be instructed to gauge investor demand for equity investment in the Agency and organize a stakeholder workshop to discuss the investment opportunity in the Agency. Incorporating the outcome of the stakeholders' workshop, the Consultants will prepare the final study.

## **B. Draft Study Table of Contents**

6. The study is foreseen to have the following content:

Part 1: Preliminary study

Introduction

I. Mortgage securitization in India

A. Overview

B. Market participants

- C. Comparison with international markets
- D. Factors impeding growth
- II. Legal and regulatory environment for RMBS
  - A. Overview
  - B. Comparison with international markets
  - C. Investor concerns
  - D. Issuer concerns
  - E. Servicer concerns
  - F. Government commitment to address issues
- III. Cost-effective issuance of RMBS instruments
  - A. Market potential in India
  - B. General structuring issues
    - 1. Bankruptcy remoteness
    - 2. Servicing
    - 3. Regulatory risk weighting
    - 4. Need for credit enhancement in primary or secondary mortgage loan market
    - 5. Identification of other risk mitigation needs
  - C. Conclusion

## Part 2: Final Report

- I. Information Memorandum
  - A. Offering details
  - B. Use of proceeds
  - C. Investment considerations
  - D. Expected financial return to investors
- II. Business Plan
  - A. Business proposition
  - B. Products and services
  - C. Market trends and challenges
  - D. Strategy
  - E. SWOT analysis
  - F. Corporate governance structure
  - G. Organization and management
  - H. Risk management including reporting systems
  - I. Integrated IT platform/structure

J. Intended capital structure

K. Budget (including but not limited to, capital expenditure, labor cost, establishment, marketing, IT structure, office space and others)

L. Financial projections

III. Implementation plan

A. Tasks

B. Timeline

C. Responsibilities