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CAPITAL MARKETS DEVELOPMENT: NEXT STEPS FOR INDIA

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Prepared for:
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EXECUTIVE SUMMARY

Barents Group LLC was tasked by USAID India to identify the constraints to the further development of India's debt and equity markets.

The goals of any capital market infrastructure project are:

- To increase the active participation of investors
- To build trusted, well-managed, effective, and low-cost market infrastructure
- To increase the effectiveness of securities regulators
- To increase the participation of issuers
- To increase the capabilities of market intermediaries

To accelerate the realization of these goals, the Barents Group team suggests interventions in four major areas:

- Increasing investor participation in India's capital markets
- Supporting the growth of financial intermediaries
- Increasing the effectiveness of the SEBI
- Supporting the development of India's debt markets

The crucial next step and one that would also drive improvements in several areas is the creation and development of the equivalent of the US **National Market System (NMS)**. In many respects the operational weaknesses in India's equity markets parallel the U.S. markets prior to the full implementation of NMS reforms in the early 1980's. An NMS in India would link exchanges around India, and result in the creation of a "consolidated feed" of open orders to buy and sell (or the best bid/offer prices in the case of dealer-driven markets), as well as a consolidated feed of transaction prices and volumes. In general, a nationwide market for "NMS securities" would be created in India for the first time.

As a result:

- investors would have much greater confidence that they were obtaining best execution of their orders;
- clearing and settlement procedures could be developed that would standardize and improve the settlement times and reduce settlement risks for issues listed on the NMS;
- Issuer disclosure requirements could be strengthened as part of an issuer's listing on NMS.

The NMS would have wide ranging benefits across the board. The US model is a very instructive and useful roadmap to follow, and US experts could facilitate the implementation process.

Other action steps recommended in the Report are listed below:

INCREASING INVESTOR PARTICIPATION IN INDIA'S CAPITAL MARKETS

- Increase the supply of timely issuer information
- Improve the Collection and Distribution of Issuer Information
- Improve the Market Infrastructure that Safely Stores and Transfers Assets
- Advance Shareholder Rights
- Broaden the Base of Investors and Increase Market Liquidity
- Build an arbitration capability

SUPPORTING THE GROWTH OF FINANCIAL INTERMEDIARIES

- Create a trade association ("change agent") to enable market participants to play a more active role through "bottom up" initiatives for the market's development.

INCREASING THE EFFECTIVENESS OF THE SEBI

- Fostering the continued development / modernization of the nation's capital markets infrastructure
- Build in-house training function
- Create a database of issuer information system (comparable to the U.S. SEC's "EDGAR" system)
- Development of a comprehensive database of capital market participants
- Additional support for SEBI's in-house legal department
- Extending the existing broker examination / licensing regime
- Build a broker and market infrastructure inspection capability

SUPPORTING THE DEVELOPMENT OF INDIA'S DEBT MARKETS

- Continued support for FIMMDA, a "bottom up" participant in debt market development
- Technical Assistance to RBI and FIMMDA working Group on Government Debt Markets
- Assess other debt markets

INTRODUCTION

BACKGROUND, OBJECTIVE AND TERMS OF REFERENCE

The mid-1990's have been a period of rapid growth and transition in the Indian capital markets. In the equity market, the National Stock Exchange (NSE) and the National Securities Depository Ltd. (NSDC) have introduced modern standards for trade execution, clearing, settlement, and depository operations. Additionally, the OTC Exchange of India (OTCEI) has introduced the first quotation-driven dealer market for equity securities. These initiatives have prompted constructive changes in other market institutions. The increasing capability of the securities regulator, SEBI, is moving issuers, investors, intermediaries, and infrastructure in the direction of global capital market standards.

India's capital market leadership understands the international models and the appropriate next developmental steps for India. The major institutional structures, legal framework, and regulations are in place or on the agenda. Thus, implementation assistance, rather than basic policy advice, is the major need at this point. Implementation follows consensus building on the goals, alternatives, and next steps. As securities firms mature within the changing environment and as the market infrastructure institutions grow, there is an increasing need for the private sector to play a more active role in guiding the market's development.

There is a clear need to assist and accelerate the market's development. The needs of national and state governments, infrastructure projects and enterprises for capital are clear. India's household savings and foreign investors are key sources of this capital and can and will be increasingly attracted to a more efficient, safe and transparent market.

In August, 1997, Barents Group LLC was tasked by USAID/India to identify the constraints to the further development of India's debt and equity markets. A Barents team interviewed over thirty Indian capital markets leaders during three weeks in August and September. In addition, they reviewed the relevant materials supplied by USAID/India and the market participants. Likewise, the Price Waterhouse team managing the FIRE I project was most helpful and forthcoming.

TEAM COMPOSITION

The Barents team consisted of Jonathan Bulkley, formerly a Wall Street executive, and Michael Kulczak, formerly an attorney with the US Securities and Exchange Commission and the National Association of Securities Dealers, Inc.

METHODOLOGY AND CONTENTS OF THE REPORT

This report first reviews the overall goals of any capital market development effort. The remaining section is then organized in four pieces: increasing investor participation in India's capital markets, supporting the growth of financial intermediaries, increasing the effectiveness of the SEBI, and supporting the development of India's debt market. Each section then presents:

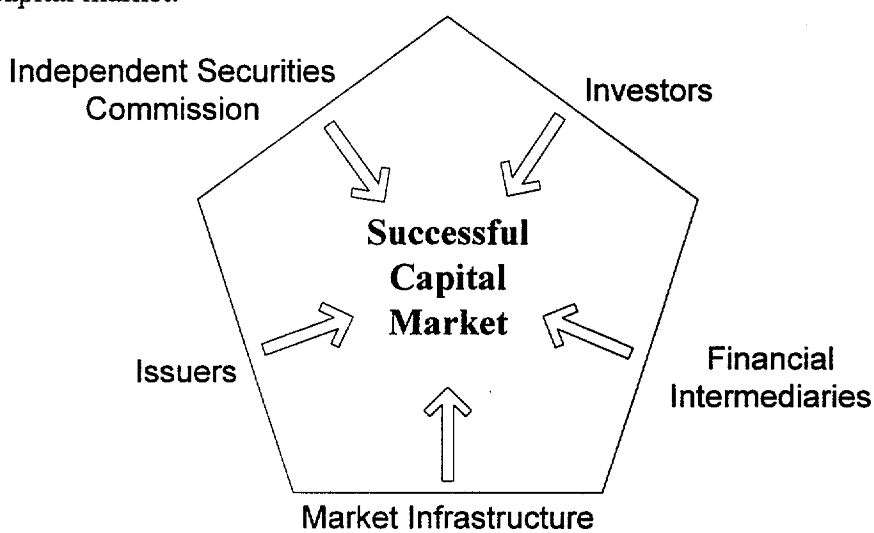
i) goals
ii) existing deficiencies
iii) action needed to address these deficiencies and areas for possible FIRE II assistance
iv) the counterpart institution for the interventions
v) the intended results (both at micro and macro levels) of these interventions

Annex I presents the list of market participants interviewed by the project team.

CAPITAL MARKET GOALS

Before reviewing the constraints to India's capital market development, it is useful to review the goals of any capital market development effort. Successful capital markets allocate an economically important share of domestic savings/investment and attract foreign portfolio investment. The key players, <u>issuers</u>, <u>investors</u>, and <u>financial intermediaries</u>, should be subject to balanced regulation from an independent securities commission that protects each from the excesses of the other while preserving their economic incentives to be active participants in the market. Ultimately, national markets must conform to the evolving standards of the global market.

The following diagram illustrates the linkages that must be in place to allow the evolution of a successful capital market.



Investors. Investors will participate actively, and the economy will benefit, if their investment decisions reflect abundant and timely issuer information, if the market provides liquidity as well as timely price and volume data, if market infrastructure safely transfers and stores their assets and if enforceable minority shareholder and investor rights and expectations meet generally accepted norms of fairness.

Market Infrastructure. Stock Exchanges, Trading Systems and Clearing, Settlement and Depository institutions manage the exchange of cash for securities and the safe storage of the evidence of securities ownership. At the beginning of the transition to a modern market economy, these entities are often founded by governments or market participants. In a national context, these institutions usually evolve into natural monopolies and thus natural Self Regulatory Organization (SROs). Therefore, they need to be subject to Securities Commission oversight and governance in the public interest by directors representing Financial Intermediaries, Investors, and Issuers. Low cost and efficient operation can best be insured if these securities institutions are owned by their users, the Financial Intermediaries. Globalization has led to generally accepted performance, safety and operational standards for such institutions.

Independent Securities Commission. An independent Securities Commission based on strong enabling legislation can help market participants ("bottom up") create a fair, efficient, and transparent market infrastructure that is able to compete with government, banks, and financial industrial groups as a collector/allocator of savings and investment flows.

Issuers. Issuers will participate actively in a market that can provide sizable amounts of capital to qualified issuers at competitive prices. Adoption of international accounting standards is encouraged by a strong capital market. The goals of encouraging capital flows to issuers and of protecting investors require an evolving regulatory balance.

Financial Intermediaries. Only an industry of profitable Financial Intermediaries can recruit and retain the talent and capital needed to professionally provide the quality services that foster active participation in the market by investors and issuers. Trade Associations (advocacy and member support) and SROs (investor protection rules) contribute to market participant initiatives, innovations and acceptance of responsibility.

DEFICIENCIES AND ACTION STEPS IN INDIA

India's capital markets are rapidly growing in size and sophistication. However, like any "emerging" market (and like many "mature" markets), India's markets do not fully meet the idealized requirements laid out in Section 1. India's markets face several key constraints to continued growth and maturity.

The following report reviews the constraints to market participation and/or involvement by the five types of market players described above, and suggests interventions and tasks to meet those requirements. This section is organized as follows:

- Increasing investor participation in India's capital markets
    - Goals
    - Existing deficiencies - institutional, legal and policy related, etc.
    - Actions needed to address these deficiencies and areas for FIRE II assistance
    - Counterpart institution for interventions
    - The intended results (both at micro and macro levels) of these interventions

- Supporting the growth of financial intermediaries
    - Goals
    - Existing deficiencies - institutional, legal and policy related, etc.
    - Actions needed to address these deficiencies and areas for FIRE II assistance
    - Counterpart institution for interventions
    - The intended results (both at micro and macro levels) of these interventions

- Increasing the effectiveness of the SEBI
    - Goals
    - Existing deficiencies - institutional, legal and policy related, etc.
    - Actions needed to address these deficiencies and areas for FIRE II assistance
    - Counterpart institution for interventions
    - The intended results (both at micro and macro levels) of these interventions

- Supporting the development of India's debt markets
    - Goals
    - Existing deficiencies - institutional, legal and policy related, etc.
    - Actions needed to address these deficiencies and areas for FIRE II assistance
    - Counterpart institution for interventions
    - The intended results (both at micro and macro levels) of these interventions

INCREASING INVESTOR PARTICIPATION IN INDIA'S CAPITAL MARKETS

GOALS

Experience has shown that investors will participate actively in a capital market if:

1. Their investment decisions reflect abundant and timely issuer information;
2. The market provides liquidity and timely price and volume information;
3. The market infrastructure safely transfers and stores their assets;
4. The legal/regulatory framework provides for enforceable minority shareholder rights and those rights meet generally accepted standards of fairness.
5. Additionally, institutionalizing domestic savings in funded pensions, mutual funds, and insurance company assets serves to increase market liquidity, facilitate shareholder governance, and encourage enterprise restructuring to enhance profitability and share valuations.

EXISTING DEFICIENCIES

None of the five conditions laid out above are fully met at "world standards" today in India. Retail investors in India are mostly short-term traders, and day trading is not uncommon. This type of trading is not conducive to capital formation because it does not entail a reallocation of savings from other investment vehicles (e.g., gold and real estate) to capital market instruments that provide long term capital to private enterprises. To the extent that buying publicly traded equities is perceived as a risky and speculative short-term activity, many potential investors will simply avoid capital market instruments altogether in deciding to allocate savings. These circumstances make it difficult and more costly for issuers to raise long-term capital via public securities offerings.

In general, India's markets suffer from:

- Relatively poor availability and distribution of issuer information
- Relatively poor and highly fragmented market information
- Cumbersome and difficult shareholder recordkeeping and clearing and settlement procedures
- Limited shareholder rights
- A narrow base of investors, both retail and institutional.

ACTIONS NEEDED TO ADDRESS THESE DEFICIENCIES AND AREAS FOR FIRE II ASSISTANCE

Develop a National Market System to increase market liquidity

Inter-market competition for order flow in "permitted securities" (i.e., securities listed on one exchange that may be traded on other recognized exchanges without the issuer submitting to listing on the other exchanges) is a fact of life in India today. From an economic standpoint, individual investor orders should flow to the exchange which offers the best price and size at the point in time that the retail customer wishes to transact. In the US and other "emerged" markets, brokers accepting customer orders are held to a standard of "best execution." This means that the broker has a legal obligation to locate the best possible price for the customer's buy/sell order under prevailing market conditions and to route the order to the market that offers the opportunity for such execution.

The existence and enforcement of this norm of fair dealing in handling customers' orders (particularly in securities traded in multiple markets in the same country) is vital to ensure investor confidence in the integrity of any securities market. <u>In India today, there are numerous stock exchanges capable of trading the same subset of securities on a "permitted" basis. Yet, there is no consolidated feed of last sale information in "permitted" securities nor any consolidation of open orders (or of firm bids and offers) to readily show a broker where to obtain the best execution of a customer's order</u>. Today, a broker must take separate feeds from all Indian markets that trade a given security in order to determine where to route a customer's order. Hence, it is not possible to implement and enforce a "best execution" standard such as that which exists in the US today.

A major component of FIRE II could be the development, under SEBI's auspices and with appropriate technical assistance, of a national market system (NMS) plan that defines:

1. Financial and corporate disclosure standards for securities that would be designated NMS securities;
2. Administrative procedures and a plan for the development of a consolidated feed of last sale price and volume information from all markets trading NMS securities;
3. Administrative procedures and a plan for development of a consolidated feed of the best bid/offer prices (or open orders to buy and sell in the case of order-driven markets), with the identity of the originating market being displayed in order to facilitate price discovery and the actual pricing of a customer's order;
4. The requirements for an electronic order routing facility that brokers could use to obtain the best execution for a customer's order;
5. The adoption of a legal standard compelling brokers to obtain the best execution of a customer's order in an NMS security.

Not all publicly traded securities would be designated as NMS securities. The standards for NMS securities should target the more actively traded securities that are likely to be traded on multiple exchanges on a "permitted" basis. A review of stock-by-stock trading statistics among the NSE, OTCEI, and Bombay Stock Exchange (BSE) should provide a starting point for defining the potential universe of NMS issues. Likewise, this review should encompass corporate debentures as well as equities.

The implementation of an NMS system along the lines described would resolve information constraints by:

- intensifying inter-market competition for order flow, while making it feasible for brokers to direct customers' orders to the market offering the best available price/size at a point in time;
- increasing liquidity in those markets offering the best price and size, on a security-by-security basis; and by
- facilitating the inclusion of all reported transactions in NMS securities in the calculation of real-time market indices comprised of various subsets of NMS securities.

In order to develop and implement a workable NMS plan, the FIRE II consultant will have to assess progress made in standardizing security identifiers among the various Indian exchanges; develop a cost-effective design and staged plan for implementation of the consolidation of market data; and propose regulatory changes needed to implement the NMS plan in a uniform fashion across all affected markets.

The initiative to amalgamate various regional exchanges into the Interconnected Stock Exchange (ISE) could be a significant stimulus for launching the NMS plan.

On the other hand, the NMS plan--which, by definition, contemplates a sizable amount of inter-market trading--cannot be implemented unless the exchanges trading NMS securities move to a uniform rolling settlement cycle, with efficient clearance and settlement procedures (including elimination of counter party risk) being provided for all inter-market trades in NMS issues. These clearance/settlement constraints must be addressed in tandem with the development of an integrated, national trading system for NMS securities.

In a related vein, shortening the settlement cycle to the G-30 standard of three business days would require the establishment of a nation-wide funds transfer mechanism within the banking system. Although SEBI could play a supporting role in this process, the Reserve Bank of India (RBI) would have to take the lead.

Assuming that SEBI approves of the NMS initiative--i.e., the electronic consolidation of last sale information as well as the consolidation of best bid/best buy order prices for individual securities, and a companion facility for routing orders between the markets trading NMS securities-- this would provide an ideal opportunity for setting guidelines or regulations for short selling. The ability of market practitioners to effect short sales can increase liquidity in individual securities, and serve as a counterbalance to excessive price appreciation in a particular security.

Increase the supply of timely issuer information

SEBI should take the lead role in setting minimum standards for corporate financial disclosure and in harmonizing Indian disclosure requirements with international accounting standards.

FIRE II can be a catalyst in this process by conducting a survey to assess:

- the evolving capacity of listed issuers (including small and mid-sized issuers currently listed on one or more exchanges) to disclose more information in conjunction with their periodic disclosure requirements and
- the costs of disclosing more information and of conforming disclosures to international accounting standards; and
- the benefits, in terms of breadth of investor participation and ease of raising capital, realized by Indian companies that may have moved to international accounting standards to raise long-term equity capital.

Based on this analysis, FIRE II could provide technical assistance (i) to develop a plan for a staged increase in issuer disclosure requirements, and (ii) to develop proposals for specific SEBI regulations to implement the enhanced disclosure regime. Throughout this process, it is vital to strike a balance between the costs of providing additional information and the costs of accessing the capital markets for private companies. For example, the results of the survey may reveal that some concessions on the breadth of required disclosures may be appropriate for small or mid-sized companies doing an initial public offering (IPO), with more stringent requirements being phased in later, once the issuer exceeds some threshold, perhaps based on net worth, total assets, number of shareholders or a combination of such objective factors.

Improve the Collection and Distribution of Issuer Information

Additionally, SEBI should take the lead in assuring that issuer information is collected in a central database and made readily accessible to securities analysts and investors at a modest cost. Senior officials at SEBI have voiced support for the construction of a data collection and retrieval capability modeled after the US SEC's "EDGAR" (Electronic Data Gathering and Retrieval) System.

A major component of FIRE II could be providing technical assistance in the design, development, and implementation of an EDGAR-type system for capturing issuer information in a standard format and making it available to securities analysts and investors more rapidly than the current "paper-based" filing systems. In addition to periodic filings, prospectuses for IPOs could also be captured and distributed through the new system. This development process would also involve a training component to assist the issuer community in transitioning to the "electronic filing" format.

At the outset, the technical assistance would involve an analysis of the mechanisms currently in place at the SEBI and the major stock exchanges for capturing, storing, distributing, and analyzing the issuer financial information that is currently received. This assessment would enable the definition of various operational and technical requirements for issuance of an RFP to build the system. Additionally, the initial assessment should examine the feasibility of one or more service bureaus that would offer the input function to small and mid-sized issuers on cost-effective terms.

Building the central database is not sufficient, per se, to promote investor interest and confidence in the financial information being captured. Responsibility for monitoring issuers' compliance with disclosure requirements must be firmly and clearly established as a matter of law. Logically, SEBI is the institution where this responsibility should rest. Accordingly, this component should include the definition of requirements for appropriate analytic software that SEBI staff would utilize in reviewing issuers' electronic filings. The investing public must have confidence in the SEBI's ability to monitor the integrity of financial information being disseminated by publicly traded companies.

Flowing from the preceding point, there should be an examination of the Companies Act to determine if changes are required to amplify SEBI's role as the definitive government regulator for enforcing disclosure requirements for companies having securities traded on a recognized exchange. At a minimum, SEBI must have jurisdiction over companies designated for inclusion in the National Market System.

Finally, this component should include the development of a business plan, containing various options for pricing and distributing issuer information collected in the SEBI's central database. The object would be to develop a pricing strategy whereby the distribution of the collected information would generate revenues to offset the costs of developing and maintaining the system. Drawing upon the US SEC's experience, it is likely that one or more private vendors will bid for the right to be the electronic distributors of the collected data, thereby producing a stream of revenue to offset operating costs.

Improve the Market Infrastructure that Safely Stores and Transfers Assets

The promotion and growth of inter-market trading in permitted securities requires uniformity in the fundamental rules and procedures of the clearing houses and depositories that support the post-trade processing functions. Growth in inter-market trading will also require information linkages between these entities, particularly if SEBI adopts, as part of the overall NMS initiative, a rolling settlement in line with the G-30 standard of three business days. The costs of upgrading and maintaining multiple clearing houses and depositories for the various markets must ultimately be borne by the investors. This factor, in turn, can affect the determination as to which market a broker directs a customer's order. Hence, it is in the economic interests of all investors--as well as the intermediaries who execute their orders--to have an efficient and cost effective institutional structure for clearance and settlement of transactions in NMS securities.

Assuming that the construction of a national system for trading NMS securities becomes a component of FIRE II, there must be a contemporaneous assessment of the existing clearing houses and depository facilities to define necessary linkages and specific areas in which harmonizing rule changes are required. This assessment should:

- Result in the formulation of a separate plan that would complement the trading system plan for NMS securities;
- Include a comparative evaluation of the various fee structures and settlement guarantee mechanisms currently in place to eliminate counterparty risk along with recommendations for appropriate enhancements;
- Review the ability of the various depositories to accommodate the full range of corporate actions including stock splits and reverse stock splits, stock dividends (and interest payments on debt instruments), cash dividends, and spin-offs of subsidiary companies;
- Examine the technical feasibility of having a central clearing house and depository facility to perform all post trade processing functions for all inter-market trades in NMS securities;
- Evaluate the technical feasibility of having the clearing houses and depositories of the smaller exchanges function simply as points of input/output for information flowing between them and the central clearing house and central depository facility. (This would serve to eliminate redundant institutional structures whose costs would otherwise have to be borne by all market participants.)

This assessment would be provided to the SEBI for consideration as part of the overall NMS plan.

Given that Indian investors continue to struggle with paper-based settlement systems, it would be appropriate for the consultant to evaluate the adequacy of the legal and operational requirements that currently apply to registrars/transfer agents. Since these entities are subject to the SEBI's jurisdiction and since SEBI would be responsible for implementing the NMS initiative, more stringent requirements for registrars and transfer agents might be a component of the clearance and settlement piece of the NMS plan.

Finally, it would be appropriate to develop an action plan (including appropriate regulations) for dematerializing all outstanding shares and debentures of NMS companies by a certain date.

Advance Shareholder Rights

The advancement of shareholder rights (particularly the rights of minority shareholders) is a task requiring legal expertise and knowledge of the legislative process. This past August, the Indian parliament was considering a number of amendments to the Companies Act, some of which could materially impact shareholder rights. At the same time, it is our understanding that SEBI had a committee of lawyers and bankers looking to identify areas in which existing laws and the SEBI's regulations should be harmonized or enhanced. The results of the foregoing activities will determine how much additional work is needed to elevate shareholder rights in India to a level comparable to that found in Western Europe or the US.

In any event, it is imperative that this enhancement to shareholder rights occur with respect to NMS securities at the earliest possible date.

To pursue this initiative in FIRE II, the consultant might take the following actions:

- Meet with the responsible SEBI staff to evaluate the outcomes of the special committee's work and the Parliament's final revisions to the Companies Act. (Given the jurisdiction of SEBI and the Department of Company Affairs of the Ministry of Law over corporate governance issues, representatives of that Department would also be participants in this undertaking.)
- Based on this evaluation, conduct a comparative analysis of the current regime of shareholder rights in India vis-à-vis the basic standards prevalent in the EU and US focusing on the following areas:

  (i) The functions and responsibilities of audit committees composed of independent directors, and an audit committee's interaction with the board of directors ;
  (ii) The right of a minority shareholder to bring a derivative action in a civil court on behalf of the corporation to redress corporate waste and mismanagement and to recover the legal costs of pursuing such actions;
  (iii) the proxy solicitation process, including the right of a minority shareholder (or group thereof) to insert propositions for a vote at the annual meeting of shareholders; and
  (iv)the rights of minority shareholders in the circumstances where a company's management proposes to take a public company private; proposes a corporate restructuring that would dilute the ownership control of existing shareholders; or where company management determines to reject a generous takeover bid from a hostile bidder.

Important to the process of advancing shareholder rights in the legislative/regulatory forums is to solicit the involvement of the shareholders themselves. Given the growing activism of many institutional investors (e.g., pension funds and mutual funds) in the US and elsewhere, it might be appropriate for this potential component of FIRE II to survey a representative group of such institutional shareholders (perhaps their Managing Directors and/or Corporate Counsels) based in India to determine their specific interests and/or concerns with their legal rights/remedies as shareholders. This survey would also seek to determine their interest in participating in a committee of an existing organization, or a new association dedicated to the advancement of legal reforms that would bolster shareholder rights/remedies under Indian law generally.

Although shareholder associations exist in India today, we were advised that none have been chartered to address the advancement of shareholder rights across the entire spectrum of exchange-listed Indian companies. Instead, these associations are comprised of individuals focusing on the management and governance of an individual company in which they are shareholders.

Finally, FIRE II could provide technical assistance to the newly created shareholder rights groups in the form of legal experts who represent major pension and mutual funds in the US on matters of corporate governance.

Broaden the Base of Investors and Increase Market Liquidity

Various parties that were interviewed advised that major domestic institutions in India--chiefly pension funds and insurance companies--have substantial amounts of money under management. The largest entities in these categories are government-controlled institutions. In order to facilitate capital raising by promising Indian companies, the FIRE II project could seek to encourage greater participation by these institutions in the nation's capital markets. The objectives would be to increase the rate of return on the funds under management, consistent with prudential standards fixed by law.

Assuming that such an initiative succeeds, it will:

- open additional pools of domestic capital to promising companies;
- broaden the base of investors with a financial stake in a subset of publicly held companies (most likely, NMS companies);
- increase the liquidity of the public markets in the shares of such companies; and
- provide additional support for legal reforms to advance shareholder rights.

Toward these ends, the following actions would be needed:

- The consultant should review the laws that establish the prudential investment standards for institutions such as pension funds and insurance companies to determine if there are legal impediments to investment in equity and debt securities of publicly held corporations.

- This review may highlight the need for revising the applicable legislation and/or regulations. In this regard, the consultant should also conduct a review of the equivalent investment standards in the US, the EU and perhaps Singapore to identify a model that could be adapted to India.

- Similarly, a case study of the successful transition of the Chilean pension funds could be instructive as well; background material on the Chilean experience is readily available.

- Finally, under sponsorship of SEBI and the major stock exchanges, it might be possible for the FIRE II project to offer seminars on portfolio management and risk evaluation to the asset managers of the major institutional investors. FIRE II could support this training effort by bringing in foreign experts with the requisite skills to conduct the training program.

Build an arbitration capability

In many emerging markets, the legal system that supports the resolution of commercial disputes generally is ill-equipped and unprepared for the task of adjudicating complex securities-related matters. Anecdotal information supplied by interviewees to the Barents team suggests that this is the case in India today. Therefore, the development of an effective dispute resolution mechanism for broker-customer disputes should be a component of FIRE II. The objective would be to provide an acceptable and more expeditious alternative to the court system. This development should bolster investors' confidence in the capital markets by providing a cost-effective means to resolve monetary disputes and, through appropriate regulations, to ensure that the arbitration awards are honored.

While some form of arbitration exists within the structures of the various exchanges, there has been no systematic review performed to determine the adequacy of these mechanisms and their availability to resolve disputes between brokers and customers. After completing this review, it would be appropriate to look at models such as those used within the US securities industry, where the SRO for each marketplace sponsors an arbitration forum with unified procedural rules approved by the U.S. SEC. To implement an appropriate arbitration mechanism for the Indian securities industry, it would be necessary to reach a consensus position on:

- Sponsorship (e.g., sponsorship and funding of arbitration forums by the recognized stock exchanges, or by one or more industry associations);
- The range of disputes that could be arbitrated and whether arbitration can be made the exclusive remedy (e.g., by virtue of a written agreement entered into at the time a customer opens his/her account with a broker);
- The development of a uniform body of rules governing access to and use of the arbitration forum, including user fees, arbitrator fees, rules of evidence, and enforcement of awards; and
- The development of basic qualification standards and a training program for arbitrators.

Technical assistance could be provided under FIRE II to assist in performance of the following tasks, in cooperation with SEBI and the entity(ties) ultimately chosen to be sponsors.

- Assess the procedures, rules, availability to investors and overall effectiveness of the dispute resolution mechanisms that currently exist among the Indian stock exchanges and various industry associations.
- Outline the relative strengths and weaknesses of the existing dispute resolution mechanisms within the Indian securities industry as compared to the arbitration mechanisms operated by the NASD or New York Stock Exchange.
- With technical advisors provided under FIRE II, form a working group of industry practitioners and lawyers representing the various stock exchanges (perhaps a working committee of the proposed SIA-type organization) to develop a plan that addresses the organizational questions (i.e., sponsorship and funding, range of disputes, exclusivity of the arbitration remedy by contract), and formulates a model code of procedures, including a mechanism to enforce awards.
- Submit the final plan to SEBI for review, comment, and approval.
- Develop an implementation plan, including training for the initial group of arbitrators and the designated sponsor(s).

THE COUNTERPART INSTITUTIONS FOR THE INTERVENTIONS

Develop a National Market System to increase market liquidity	SEBI and major market institutions (including the Inter-Connected Stock Exchange)
Increase the supply of timely issuer information	SEBI and major issuers
Improve the Collection and Distribution of Issuer Information	SEBI
Improve the Market Infrastructure that Safely Stores and Transfers Assets	Primary depository institutions
Advance Shareholder Rights	Institutional shareholder associations and shareholder rights associations.
Broaden the Base of Investors and Increase Market Liquidity	SEBI and major institutional investors
Build an arbitration capability	SEBI and market SRO sponsors

THE INTENDED RESULTS (BOTH AT MICRO AND MACRO LEVELS) OF THESE INTERVENTIONS

PROJECT OUTPUT	MACRO AND MICRO RESULTS
Implementation of a National Market System to increase market liquidity and consolidate real-time market data in NMS securities.	Increased market liquidity, better information for shareholders, and more investor participation.
Greater understanding of costs of greater disclosure, and development of stricter disclosure standards.	More information on issuers, leading to greater investor participation.
Improved market for the collection and distribution of information on issuers	More information on issuers, leading to greater investor participation.
National clearing and settlement system, in conjunction with NMS development.	Greatly improved clearing and settlement processes, lowering risk and increasing investor participation, particularly among foreign investors.
Improved shareholder rights	Increased investor and particularly foreign investor participation.
Better understanding of markets by collective investment institutions in India.	Greater investor participation, market liquidity.
Availability of non-judicial system to settle disputes	Lower risks and costs, and increased investor confidence and participation in the capital markets

SUPPORTING THE GROWTH OF FINANCIAL INTERMEDIARIES

GOALS

Capital markets development is an iterative process that can be led by either the public sector or the private sector. To date, reforms have come from the public sector, which has taken a number of important steps to open up the market place and modernize the markets.

In India today, many market participants in the private sector have the maturity to assist in the development of long-term goals and the establishment of priorities, and in general to become a more equal partner in the capital markets development process.

A successful capital market is characterized by a community of profitable financial intermediaries that can attract and retain the talent and capital necessary to provide high quality financial services and encourage market participation by investors and issuers. To flourish and prosper, this community must have a vehicle for building and expressing consensus positions on matters of national market initiatives, new securities regulations, and legislative reforms that impact a broad cross section of securities market participants.

A separate organization capable of advocating positions on behalf of securities brokers is needed to provide a "bottom up" approach in setting priorities and strategies for overcoming various constraints on the further development of any major country's capital markets.

EXISTING DEFICIENCIES

In India today, there is no single organization that acts as the collective voice and advocate of the brokerage industry. While capital markets participants have occasional meetings and assist in the review of various policy/regulatory initiatives, the absence of an organization (with dedicated professional staff) that can act as a catalyst and move things forward hampers the ability of the market participants to assume leadership.

ACTIONS NEEDED TO ADDRESS THESE DEFICIENCIES AND AREAS FOR FIRE II ASSISTANCE

Create a trade association as a "change agent" to accelerate the continued growth and development of the securities industry

What is required in India today is the creation of a sustainable institution with the skills, expertise, and funding needed to advocate "bottom up" solutions to the legal/regulatory constraints, and to accelerate the continued growth and development of India's capital markets.

It is suggested that an organization comparable to the U.S. Securities Industry Association (SIA) be created to function as the advocate for the industry. Membership in this "change agent" organization would be voluntary and be funded by dues paid by its members. Membership would be open to all duly licensed brokerage firms; the organization would maintain a permanent office and staff including securities lawyers as well as persons knowledgeable in all phases of the business operations of broker-dealers, investment companies, and clearance and settlement organizations in India. The new organization would also solicit members' participation in committees chartered to deal with legal, regulatory, training, and operational issues. Under FIRE II, it is envisioned that experts from the U.S. would provide organizational assistance to the SIA-type body that would be formed. This assistance would be provided with respect to drafting a suitable charter, developing the initial organization and committee structures, and developing a business plan and budget.

Specific tasks include:

- A diagnostic of all existing associations of practitioners within the Indian securities industry to determine if one or a group of them might be transformed into the new association.
    - ◊ Preliminary interviews with two existing associations--AMBI (representing merchant bankers) and AMFI (representing mutual funds) disclosed support for a "bottom up" approach to shaping the future of the Indian capital markets. These organizations are noteworthy in that one represents the community of firms that work with issuers to raise capital while the other works with firms that offer collective investment schemes for individual investors. Hence, these organizations represent two important constituencies that support the capital markets.
    - ◊ AMFI has received organizational and technical support from the initial FIRE project, which resulted in the promulgation of a code of ethics; standardization of business practices, conventions, and forms; and an educational publication for investors. Such activities would certainly be consistent with and complement advocacy efforts. Building on this base, it is possible to envision sponsorship of training programs and seminars (operated on a for-profit basis) to advance the skill levels of practitioners.
    - ◊ Certain drawbacks exist as to these organizations. To date, both AMBI and AMFI have operated without permanent offices and a full time paid staff. Both organizations have relied on volunteers to staff committees and working groups. Additionally, both organizations were conceived to be self-regulatory organizations(SROs). However, in contrast to the US model for an SRO, neither operates an institution of the capital market infrastructure.
    - ◊ It is also unclear whether membership in these SROs is mandatory as a matter of law or voluntary. If not mandatory, then expulsion from membership for non-payment of dues or non-payment of a fine may have little practical impact. In any event, an SRO must be able to exercise regulatory and enforcement powers, and have a dependable source of funding for those activities. It is unclear whether

these self-regulatory functions would be compatible with the consensus-building, advocacy, training, and other industry support functions envisioned.

- The diagnostic should include a survey that would solicit input from the existing associations as well as leadership of the various stock exchanges on:

    - ◊ the range of basic functions that the proposed organization would perform, e.g.

        - — advocacy
        - — training programs for persons seeking to qualify as licensed industry professionals
        - — continuing education standards and programs for practitioners
        - — investor education forums and publications
        - — seminars on new technologies for the securities business

    - ◊ the structure of the organization (which might be an amalgamation of some existing associations or a completely new entity); and
    - ◊ the methods of funding the advocacy organization.

- Assuming that the community of practitioners is supportive of the idea, FIRE II could provide technical assistance as needed to draft an appropriate charter, establish the initial organizational and committee structure, and develop the initial business plan and operating budget.

THE COUNTERPART INSTITUTION FOR THE INTERVENTIONS

New association of market participants.

THE INTENDED RESULTS (BOTH AT MICRO AND MACRO LEVELS) OF THESE INTERVENTIONS

PROJECT OUTPUT	MACRO AND MICRO RESULTS
Creation of a change agent to increase the rate of development of the Indian capital markets.	Strong voice of the market participants in the future development of the Indian capital markets, resulting in a "demand-driven" infrastructure that corresponds to the needs of those that use it. The association would pursue reform over the lifetime of the Project, and live on after the project was completed.

INCREASE THE EFFECTIVENESS OF THE SEBI

GOALS

SEBI must marshal the resources and apply the expertise required of an independent securities commission that is charged with:

- effectively regulating a diverse capital markets infrastructure in a country of 900,000,000 citizens, and
- fostering the development of those markets in line with internationally recognized standards for market transparency, fairness, and operational efficiency, including clearance and settlement activities.

EXISTING DEFICIENCIES

Having its administrative origins in 1988 and receiving statutory status in 1992, SEBI has faced a formidable task in developing the capabilities to oversee more than 20 stock exchanges, the clearing house and depository structure associated with these exchanges, and tens of thousands of securities agents or intermediaries. While significant progress has been made in several areas, interviews suggest that more can be done to assist SEBI's efforts in the following areas:

- refining and implementing strategies for the systematic inspection of stock exchanges, investment companies, clearing houses and depositories;
- building up in-house training capabilities;
- developing comprehensive databases of financial information on publicly-traded companies as well as basic information on regulated persons/entities;
- providing specialized automation support and further refining management skills within SEBI's litigation unit;
- extending the broker examination/licensing program to include practitioners responsible for compliance and/or supervision functions within brokerage firms;
- developing advanced market surveillance techniques to keep pace with the advent of derivatives trading and the likely emergence of abusive sales/trading practices involving derivatives; and
- fostering the continued development/modernization of India's capital markets infrastructure in accordance with internationally recognized standards.

ACTIONS NEEDED TO ADDRESS THESE DEFICIENCIES AND AREAS FOR FIRE II ASSISTANCE

Fostering continued development / modernization of the nation's capital markets infrastructure

Development and implementation of a national market system (NMS) (as described more fully in the preceding section)-- beginning with criteria for defining the universe of NMS securities and an NMS plan-- should be one of the key initiatives for SEBI under FIRE II.

The development of an NMS plan would entail establishing technology requirements and regulations needed to:

- consolidate market data in NMS securities; implement an inter-market trading facility;
- develop modern, efficient linkages between the existing stock exchanges' trading systems for NMS securities and the post trade processing institutions/systems (i.e., clearing houses and depositories);
- and establish a timetable for the phased implementation of the NMS.

Experts knowledgeable in the development of systems and regulations for the creation of a national market system in the US could be provided, on an as-needed basis, to assist in the organization and development of an NMS plan under FIRE II.

See the previous section for further details.

Build in-house training function

FIRE II can focus on the process of institutionalization of training within SEBI, to ensure continued development of the expertise needed to regulate India's capital markets after conclusion of the assistance program.

Essential steps include:

1. The development of a comprehensive training plan that would be administered by an in-house training director at SEBI. FIRE II could provide technical assistance in the form of one-on-one guidance by training experts from the US securities industry.
2. The development of a curriculum for concentrated training of new senior executives, which would encompass the organizational structures, operations, and regulations applicable to the principal market institutions; trips abroad for seminars and inspection of the operations of other SROs and securities commissions.
3. The development of an in-house training curriculum for entry level professionals by training trainers (who could be FIRE II project experts as well as persons drawn from the ranks of SEBI supervisors); this training of trainers program could be supplemented with courses offered by training institutes established by SROs or other industry bodies to train persons seeking to qualify as brokers or compliance professionals.

Create a database of issuer information (the "EDGAR") System

As noted in the "Investor" section, a key long-term step to build investor confidence is to develop a comprehensive database of information on publicly-traded companies, along the lines of the US SEC's EDGAR system. FIRE II could support this effort by providing technical assistance in:

- The creation of a specifications document that could be used as the basis for an RFP to build the system;
    - The technical specifications should include appropriate requirements for analytic software that would assist the SEBI staff in identifying potential violations of disclosure requirements/accounting standards or the fact that a company has fallen below applicable exchange listing standards.
- The development of training modules for persons who would access and use the system.

Development of comprehensive database of capital market participants

The object of this component would be to create a central electronic repository containing key elements information on individuals (e.g., brokers and later, compliance/supervisory staff) and entities (e.g., brokerage firms, investment companies, securities exchanges, and depositories) that are directly regulated by SEBI. This would be timely as SEBI is about to implement a qualifications exam for an estimated 20,000 brokers who are licensed by SEBI. (This qualifications exam was developed with technical assistance provided under the initial FIRE program.) Similar to the Central Registration Depository (CRD) built and operated by NASD in the U.S., FIRE II could support this effort by providing technical assistance in:

- The creation of a specifications document that could be used as the basis for an RFP to build the system.
- Providing insights gained from the NASD's recent upgrade of the CRD system.
- Developing analytic functions in order that this database could be used to conduct economic studies.
- Developing a training program for SEBI's internal IT staff regarding maintenance and enhancement of the system.
- Developing an in-house economic research unit similar to that of the U.S. SEC that could produce empirical data and models for economic/policy research. (Under FIRE II, visiting U.S. experts could be invited to assist on specific research projects.)

Additional support for SEBI's in-house legal department

This department continues to grow with plans for hiring 7 more attorneys in the coming year. Based on interviews, technical assistance under FIRE II could be provided in the following areas:

- Developing an RFP and assessing vendor proposals to provide on-line legal research capabilities that would enable SEBI's legal staff to analyze relevant securities legislation, SRO rules, and litigated securities cases in the U.S. and other jurisdictions with a well developed body of securities laws administered by an independent securities commission. Apart from assisting in litigation, this database might also be used to track emerging trends in securities market reform and related legislation.

- Provision of technical assistance in case management, litigation strategies, and internal management practices within the legal department of a securities commission. Accordingly, FIRE II could provide appropriate assistance in the form of senior legal advisors, with litigation experience at the U.S. SEC or at a major U.S. SRO, working one-on-one with counterparts at SEBI.

Extending broker examination / licensing regime

Under the current FIRE project, a significant amount of resources were expended to develop first qualifications exams for brokers that would be licensed by SEBI. Going forward, FIRE II could provide SEBI with additional technical assistance (in the form of U.S. advisors experienced training securities industry professionals) in the following areas:

- Developing functional definitions for additional categories of practitioners that would have to pass a specialized qualifications exam in order to be licensed by the SEBI (e.g., compliance officers, selected supervisory personnel and trainers, and persons engaged in trading/selling derivative products).
- Developing and administering appropriate examinations for each category; exam results should be captured in the proposed SEBI repository of information on securities industry practitioners.
- With input from the practitioner community, developing some basic standards for continuing education, particularly in connection with the introduction of new securities products.

Build inspection capability

As an independent securities commission, SEBI is the primary regulator for several key institutions within the structure of India's capital markets. As to these institutions, SEBI must have an effective capability to monitor and assess their compliance with all applicable SEBI regulations. Many compliance areas require on-site inspections of the regulated entities to ensure that appropriate procedures and safeguards are in place, and, if not, to identify weaknesses and propose remedial actions before serious problems arise. Toward these ends, U.S. advisors with appropriate experience in on-site inspections of capital market institutions could provide technical assistance as follows:

1. Identify substantive strengths and weaknesses in the modules currently used to conduct inspections and propose enhancements where necessary. For example, as to stock exchanges, the SEBI's inspection modules/procedures should be scrutinized for effectiveness in assessing an exchange's market surveillance and investigative techniques as to trading violations such as market price manipulation, insider trading, prearranged trades, wash sales, and mishandling of customers' orders.

Likewise, a portion of the module should include a technical assessment of the exchange's transaction audit trail, exception parameters for surveillance reports to detect specific violations, the quality and timeliness of investigations conducted by the exchange staff, and the appropriateness and consistency of sanctions imposed by an exchange for rules violations by members.

To assess an exchange's ability to monitor the financial and operational soundness of its members, SEBI inspectors should also have specific modules/procedures for reviewing the adequacy of on-site examinations of member brokers conducted by the various exchanges. Such inspections should yield certain base line requirements that all exchanges should follow.

2. As to the categories of entities referenced above, SEBI should also have inspection modules/procedures designed to assess the operational soundness of the regulated entity's technology. For example, as to a stock exchange's trading system technology, it would be appropriate to evaluate items such as:

   (i) system and network capacity in relation to current and projected trading volumes;
   (ii) system and network security;
   (iii) the frequency, duration, and causes of outages, and the adequacy of the recovery procedures utilized in responding to each occurrence;
   (iv) methods used to develop, test and implement software changes;
   (v) contingency plans and data recovery procedures;
   (vi) back-up facilities; and
   (vii) the overall administration of the organization's technology base.

   Thus, under FIRE II, experts could evaluate and propose changes, as needed, to the SEBI's inspections modules and procedures related to the technology base underlying the exchanges, the investment companies, clearing houses, and depositories, respectively.

3. Separately, FIRE II could include an evaluation of SEBI's existing stock watch unit, from the standpoints of technology as well as investigative procedures. As appropriate, changes/enhancements would be recommended.

4. It should be noted that the advent of derivative products in the U.S. led to a variety of compliance problems that ultimately resulted in an SEC-ordered moratorium on the expansion of standardized options trading and the adoption of a number of new regulations by the SEC as well as the SROs that supported options trading. In light of this experience, FIRE II might have a component that involved one or more advisors working with SEBI to ensure that adequate investor safeguards are in place at the SROs and at the brokerage firms that qualify to trade derivative products. For example, this review could focus on adequacy of: training of practitioners within the brokerage community; educational programs designed to alert investors to the risks of trading derivatives, apart from their use as hedging mechanisms; specialized market surveillance procedures developed by the SROs intending to trade derivatives products; and internal compliance procedures being used by the brokers that

are authorized to trade derivatives. To the extent weaknesses are found, a plan for remedial action would be developed.

THE COUNTERPART INSTITUTION FOR THE INTERVENTIONS

SEBI.

THE INTENDED RESULTS (BOTH AT MICRO AND MACRO LEVELS) OF THESE INTERVENTIONS

PROJECT OUTPUT	MACRO AND MICRO RESULTS
Refined strategy, training, and implementation assistance for inspection of market participants / institutions.	Greater credibility for the SEBI, reduced fraud by market participants, and greater investor protection.
In-house training capability	Improved functioning of all areas of the SEBI, leading to better oversight and enforcement of the securities industry as a whole.
EDGAR-type system of financial information	More information on issuers, leading to greater market liquidity and investor participation.
Support to the litigation unit	Better enforcement of securities laws
Extended broker certification program	More credibility for the SEBI in the marketplace, and better understanding of securities laws by market participants, leading to lower risk and greater investor participation
Improved market surveillance techniques	Reduced market fraud, more credibility for the SEBI.
Work on sponsoring improvements in the capital markets infrastructure	Movement towards world-standard capital market infrastructure, and an increased profile for India among international institutional investors.

SUPPORTING THE DEVELOPMENT OF INDIA'S DEBT MARKETS

GOALS

Debt markets play a crucial role in the financial system. As with equity markets, the major goals are to improve market liquidity, and to expand the breadth of market participants, and the level of transparency in the markets as a whole.

EXISTING DEFICIENCIES

As the market grows and matures, the investors, financial intermediaries, and regulators in the debt markets face some of the same constraints that affect the equity markets, including a variety of legal, informational, and infrastructural constraints that place some limits on liquidity, the investor base, and market transparency.

ACTIONS NEEDED TO ADDRESS THESE DEFICIENCIES AND AREAS FOR FIRE II ASSISTANCE

As in the equity markets, a "change agent" is required:

- To offer a bottom-up approach to legal and structural constraints on future development of the Indian debt markets;
- To enhance existing trading and clearance mechanisms for debt instruments; and
- To improve market liquidity and breadth of market participants.

FIMMDA is well placed to become the change agent for the debt markets.

Continued support for FIMMDA

FIMMDA has received some organizational assistance under the initial FIRE program; however, it is still at the start-up stage. Under FIRE II additional assistance could be provided to build an economically sustainable organization with a clear mission as to advocacy on policy and regulatory issues with respect to the Reserve Bank of India (RBI); practitioner skills training; development/implementation of standardized businesses practices and documentation, including applicable international norms; and development of a code of conduct for debt market professionals. Working with FIMMDA, FIRE II could provide U.S. experts to enhance practitioners' skills in the areas of portfolio management and risk evaluation.

- Provide organizational assistance as needed respecting FIMMDA's internal structure (including the initial committees and working groups), initial staffing, budget, and business plan; assist in drafting job descriptions for key personnel if needed.

- Establish clear priorities and goals in the following areas for the next two fiscal years: advocacy on policy, regulatory, and legal changes requiring action by RBI, SEBI, or another government agency; essential technical enhancements to the debt market infrastructure (i.e., trading as well as clearance, settlement, and depository mechanisms) to make it more cost effective and responsive to practitioners' business needs; identify critical training/skills development needs that can be addressed through seminars or other programs sponsored by FIMMDA; development of a code of ethics for practitioners; and development of industry-wide standards on documentation and good business practice for dealers and other intermediaries participating in the debt markets.
- Develop and implement an action plan and a timetable for achieving the various priorities identified for the next two years.
- Given the "agenda for change" that would be embraced by FIMMDA, it may be advisable to assign a resident advisor of the FIRE II team to work exclusively with FIMMDA to implement the items identified in the action plan and coordinate the assistance being provided by non-resident advisors.

Technical Assistance to RBI and FIMMDA working Group on Government Debt Markets

Working with RBI as the principal counterparty for the government bond market in India:

- Assess existing infrastructure institutions and provide technical assistance with the following objectives in mind:

    - ◊ to increase the utilization of the existing screen-based trading systems on one or more stock exchanges;
    - ◊ to increase the liquidity offered by such markets; and
    - ◊ to develop and implement an action plan to achieve paper-less clearance, settlement, and depository services for all classes of government bonds.

- In addition, FIRE II could provide the necessary experts to assist in fashioning appropriate regulations and operational safeguards to permit more expansive use of repurchase agreements (repos) and short sales. Both are essential to increase liquidity in the dealer markets for government securities. In addition to the RBI, a FIMMDA subcommittee or working group should also be included as a counterparty in this process.

- Examine existing screen-based trading systems (concentrating on OTCEI, BSE, and NSE) to determine the feasibility of providing specialized functionality for dealers quoting markets in government debt instruments; for example, trading system software might be modified to accommodate one tier of dealers servicing institutional customers trading in large amounts of bonds; another tier could be adapted to the needs of other dealers servicing the individual retail customers. Practitioners from the FIMMDA working group would take the lead in defining business needs that would drive the software enhancements, as well as the key concepts to be incorporated into the trading rules for each tier. Experts provided under FIRE II could contribute expertise in the systems assessment and the drafting of appropriate market rules.

- With assistance as needed from FIRE II advisors, the FIMMDA working group should analyze and propose draft regulations for the expanded use of repos and short selling to increase market liquidity. In these areas, FIRE II experts in government bond trading could provide guidance on regulatory and operational requirements, based on the models of the U.S. and the U.K. government bond markets.

- Assess the current settlement/depository services provided by the RBI for government bond trades and determine what technical modifications would be necessary to make these systems "state of the art"; a useful frame of reference would be the functionality offered by the NSCC and NSDL for settlement of trades in dematerialized securities. Experts provided under FIRE II could assist local technical experts in this area.

- Given the economic importance of the government bond market, it is likely that the RBI would want clearance and settlement functions centralized. Accordingly, the assessment of exchange trading systems should include an assessment of the network linkages required for those exchanges to interface with the central settlement facility. FIRE II advisors could assist this process as well.

- After completing the foregoing assessments, FIRE II advisors could assist in the development of specifications documentation and an RFP to solicit vendor bids for systems and network enhancements. These advisors could also assist in the evaluation of the vendors' proposals.

- With respect to the markets in corporate and PSU bonds, a separate FIMMDA working group could take the lead in assessing and defining enhancements to trading systems and clearance/settlement infrastructures to make these facilities more efficient and cost-effective, and promote greater liquidity through dealers' use of screen-based systems. Advisors under FIRE II would provide technical assistance as needed with respect to systems enhancements and essential rules changes. They would also assist in the drafting of specifications documentation and an RFP to solicit vendor bids. As needed, the FIRE II advisors would also assist in the evaluation of bids.

Assess other debt markets

With respect to non-government bond market for PSU (Public Sector Undertakings) and corporate debt instruments, a similar assessment of trading systems and clearance and settlement infrastructure should be made with the objectives of defining changes necessary to increase utilization of existing screen-based trading systems and moving to a paper-less clearing, settlement, and depository services. Under FIRE II, appropriate experts on the legal and operational facets of the U.S. corporate debt markets could work with a FIMMDA subcommittee or working group to define essential changes and propose an action plan to implement them.

Although several rating agencies exist to evaluate the credit worthiness of issuers, the pricing of PSU and corporate debt issues requires a well developed yield curve for government debt instruments of comparable maturity. This yield curve has not been fully developed as the RBI has only recently begun to issue debt at yields that are market driven.

THE COUNTERPART INSTITUTIONS FOR THE INTERVENTIONS

RBI and FIMMDA.

THE INTENDED RESULTS (BOTH AT MICRO AND MACRO LEVELS) OF THESE INTERVENTIONS

PROJECT OUTPUT	MACRO AND MICRO RESULTS
Emergence of FIMMDA as a well organized and viable change agent, and its recognition as such by RBI.	Long-term support to the process of improving India's debt markets, and direct improvements in debt market operations.
To enhance existing trading and clearance mechanisms for debt instruments; and	Reduced risk, greater market liquidity, and greater ability of public and private sector to raise capital.
To improve market liquidity and breadth of market participants.	Reduced risk, greater market liquidity, and greater ability of public and private sector to raise capital.

ANNEX I:
PARTIES INTERVIEWED BY PROJECT TEAM

1. Amarchand & Mangaldas & Suresh A. Shroff & Co.--Ms. Vandana Cyril Shroff
2. Association of Mutual Funds of India (AMFI)--A.P. Kurian
3. Association of Merchant Bankers of India (AMBI)--S.M. Billimoria
4. ARK Securities Group--Arjun Kapur
5. Bombay Stock Exchange--R.C. Mathur, Kalpana Maniar
6. Credit Rating Information Services of India Limited (CRISL)--R. Ravimohan, H. Joshi
7. DSP Merrill Lynch-- S. C. Wilberding, U. Thakurdesai, and S. H. Shah
8. Housing Development Finance Corporation Limited--Nasser Munjee
9. ICICI Securities and Finance Company Limited--Kishor Chaukar, Aashish V. Pitale
10. ILFS--Hari Sankaran
11. Indian Stock Exchanges Services Corporation (The Interconnected Stock Exchange)--J. Massey, V. Shankar
12. Indira Gandhi Institute--Dr. Ajay Shah, Dr. Susan Thomas
13. Industrial Development Bank of India--Dr. S.A. Dave
14. Infrastructure Development Finance Company Limited--D.J. Balaji Rao
15. International Finance Corporation--Surinder Chawla
16. M/s. Mangaldas L. Kaji, Shares & Stocks Broker--Himanshu Kaji
17. Ministry of Finance, Department of Economic Affairs--Dr. U. Sarat Chandran
18. National Securities Depository Limited--C.B. Bhave, Gagan Rai
19. National Stock Exchange--Ravi Narain
20. OTC Exchange of India--M. Pushpangadan, Nina Nagpal
21. Price Waterhouse, LLP--W. Dennis Grubb, Frank Wolf, Jr., Frank Wilson, R.N. Kesava Prasad, N. Sankaranarayanan, and Paritosh Sharma
22. Reserve Bank of India--Dr. Urjit R. Patel (Consultant)
23. SBI Capital Markets Limited--R.C. Mehta
24. Securities and Exchange Board of India--O.P. Gahrotra, L.K. Singhvi, P. Kar, D.N. Raval, and Anita Kapur
25. Stock Holding Corporation of India Limited--D.V. Doud, L. Viswanathan, J. Viswanathan, M. Borkar