

PN-ACC-021

**Review of Clearing and Settlement Procedures  
at the Delhi Stock Exchange**

**US Agency for International Development  
Contract #386-0531-C-00-5010-00  
Project #386-0531-3-30069**

**September 29, 1997**

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## *Price Waterhouse LLP*



September 29, 1997

Mr. Deepak Choudhary  
President  
Delhi Stock Exchange Association Ltd.  
West Plaza, Indira Gandhi Stadium  
Indra Prastha Estate  
New Delhi 110 002

**Subject: Price Waterhouse LLP FIRE Project Review of Delhi Stock Exchange Clearing  
and Settlement**

Dear Mr. Choudhary:

Mr. Joe Schenk, Price Waterhouse LLP (PW) Capital Markets Consultant visited the Delhi Stock Exchange (DSE) on Monday, 28<sup>th</sup> July 1997, to review DSE's clearing and settlement procedures. This was carried out under the USAID funded Financial Institutions Reform and Expansion (FIRE) Project.

In general, Mr. Schenk finds that DSE needs to move towards internationally accepted clearing and settlement standards, defined by the Group of 30 recommendations, if DSE wants to become a "world securities market."

Most of the trading volumes on DSE are currently of the "squaring up" trading strategy and do not represent real investment. If DSE want to prepare itself for the long term, the exchange must move towards internationally accepted standards of trade clearance and settlement and promote delivery based business. PW/FIRE realizes this may not be popular move for DSE, but it is necessary in order to survive in the long run.

Since DSE is in a struggle to define its market in light of the national reach of the National Stock Exchange (NSE) and the pending national expansion of the Bombay Stock Exchange (BSE), PW/FIRE sees the implementation of internationally accepted trade clearance and settlement standards as a way for DSE to differentiate itself and create a new delivery based market.

If DSE decides it will move forward with clearing and settlement reforms recommended in this report, PW/FIRE is in a position to offer assistance in establishing a modern clearing corporation that guarantees trades, offers rolling settlement and achieves delivery versus payment.

Please contact me at telephone (022) 496-3599 or (022) 497-3216/38, fax (022) 496-3555 to discuss PW/FIRE's findings in this report. Thank you.

Sincerely,

Mr. Dennis Grubb  
Principal Consultant - Capital Markets

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## **I. EXECUTIVE SUMMARY**

The Delhi Stock Exchange (DSE) has expressed a desire to improve its image as a marketplace by developing a modern clearing and settlement operation. In addition to recommending clearing and settlement improvements, this report reviews trade feeds (trading environment) to clearing and settlement.

The present DSE trading cycles of five to 10 days, which require an additional 10 days to clear and settle, only provide an acceptable marketplace for a limited number of traders. Long term traders and investors seek a more secure market with faster trade settlement in which to trade. DSE must identify its present investors and determine if DSE members would like to increase that investor base by developing a modern marketplace which would include shorter settlement cycles.

The modern marketplace should meet the Group of 30 (G30) World Market Standards which will be identified in this report. At some point DSE must implement these standards. At present time, however, DSE has identified the goal of providing an efficient lengthened settlement cycle to facilitate deliveries of regular way (normal trading cycle) and arbitrated trades. Most trades in this marketplace are "squared up" leaving a very small percentage which actually settle.

This report identifies the nine standards for measuring a world market and whether or not these are being met by the DSE. It will also make recommendations that will enable the DSE to develop as a world marketplace and improve the existing Indian marketplace. Many of the points covered will, in reality, be questions for the Board of Directors of the DSE to consider. The answers will determine the future development of the DSE, and what assistance Price Waterhouse and the FIRE Project can provide.

## II. GROUP OF 30 REQUIREMENTS

This section lists each of the nine requirements of the G30 standards and evaluates whether DSE currently meets the standards.

### Recommendation 1

All comparisons of trades between direct market participants (i.e., brokers, broker/dealers and other exchange members) should be accomplished by T+1.

Status: Met.

All DSE trades are locked in by the system which allows comparison on the day of trade.

### Recommendation 2

Indirect market participants (such as institutional investors, or any trading counterparties which are not broker/dealers) should be members of a trade comparison system which achieves positive affirmation of trade details.

Status: Not met.

No system exists to link institutional traders or sub brokers to the clearing and settlement environment, or to the trade system.

### Recommendation 3

Each country should have an effective and fully developed central securities depository, organized and managed to encouraged the broadest industry participation (directly or indirectly).

Status: Not met.

No depository environment exists at the DSE. This requirement could be met with an electronic interface with the National Securities Depository Ltd. (NSDL) located in Mumbai.

### Recommendation 4

Each country should study its market volumes and participation to determine whether a trade netting system would be beneficial in terms of reducing risk and promoting efficiency. If a netting system would be appropriate, it should be implemented.

Status: Met.

The DSE system provides netting. However due to the long settlement cycle (over 15 days), risk is not reduced and efficiency is not achieved. The DSE needs to consider rolling settlement, shorter trading and settlement cycles and depository settlement.

#### Recommendation 5

Delivery versus payment (DVP) should be employed as the method for settling all securities transactions.

Status: Not met.

DVP is only achieved today if the clearing broker infuses his own funds into the process. A shorter and faster settlement cycle is needed to accomplish DVP.

#### Recommendation 6

Payments associated with the settlement of securities transactions and the servicing of securities portfolios should be consistent across all instruments and markets by adopting the "same day" funds convention.

Status: Not met.

No exchange in India provides same day funds. The exchanges require the assistance of the banking system and the Indian government to provide a form of guaranteed payment.

#### Recommendation 7

A "Rolling Settlement" system should be developed by all markets. Final settlement should occur on T + 3. As an interim target, final settlement should occur on T+5 at the latest, save only where it hinders the achievement of T+3.

Status: Not met.

In order to achieve rolling settlement the DSE must also review and change the trading environment. To accomplish this each trading day must settle independently. This will require rule changes, development of stock loan and the use of a depository. Initially DSE can move to T+5 settlement, but T+3 settlement must be the goal.

#### Recommendation 8

Securities lending and borrowing should be encouraged as a method of expediting the settlement of securities transactions. Existing regulatory and taxation barriers that inhibit the practice of lending securities should be removed.

Status: Not met.

No formal lending or borrowing exists at the DSE. It will become an important and profitable part of the environment if rolling settlement is implemented and short selling is initiated. Regulatory and tax barriers must be identified and resolved.

Recommendation 9

Every country should adopt the standard for securities messages developed by the International Organization for Standardization (ISO Standard 7775). In particular countries should adopt the ISIN numbering system for securities issues as defined in the ISO standard 6166, at least for cross border transactions.

Status: Not met.

The international numbering for scrips and standardized message formats are easily developed now and would not require changes in trading.

### III. PROPOSAL FOR ROLLING SETTLEMENT

Since 1989 virtually everyone associated with the world's capital markets has agreed that the major challenge facing clearing systems over the coming years is the reduction of risks at the clearing house or the clearing corporation.

The major approach to reducing risk is by shortening the settlement cycle. The ultimate goal is to settle equity trades on T+3. To move towards this goal in an orderly, non disruptive manner, and to take its place as a recognized world market, the DSE must now move to develop a T+5 rolling settlement environment. This will be accomplished through the development of a clearing corporation owned by the DSE or the DSE and other exchanges it serves.

#### A. *The Clearing Corporation (Clearing House)*

The modern clearing corporation will have to change old practices and become a client oriented provider of delivery services with rules and regulations that will generate investor confidence. The new environment should start with a small pilot run in a parallel mode with a few securities, so members and employees can accustom themselves to the new processes.

The clearing corporation will have to become an independent organization recognized and registered with the Securities and Exchange Board of India (SEBI) as a clearing agency and a self regulatory organization to service one or more exchanges. The clearing corporation should:

- Provide fast, accurate and cost effective clearance and settlement of securities;
- Guarantee all trades by becoming the counterparty of each buy and sell order;
- Guarantee the safeguarding of securities and funds;
- Foster cooperation and coordination among its participants engaged in clearance and settlement;
- Protect investors and the public interest; and
- Foster the establishment of T+3 settlement and other G30 world market requirements.

#### B. *Function of Clearing Corporation (Clearing House)*

The primary function of the DSE clearing corporation will be the clearing and settlement of equity securities and other instruments traded on the exchange. First, the clearing corporation will want to move to T+5 rolling settlement as an intermediate step in the move to T+3 rolling settlement.

In T+5 rolling settlement, netting should be complete and deliver and receive instructions should be wired to all members on the morning of T+2. On the morning of T+4, the delivery

of scrip and funds will be made by the members to the clearing corporation. Scrip and fund positions will be finalized and on T+5 payment of cash and delivery of scrip will be completed by the clearing corporation.

Once the DSE clearing corporation has successfully instituted procedures for itself to become the contra-side to all trades, an institutional DVP can take place on T+5 with simultaneous deliveries and payments which will eliminate the need for broker intervention with funds.

The clearing corporation must maintain a guarantee fund which will protect the investing public by insuring orderly, good deliveries for all transactions it processes by guaranteeing all trades for which the clearing corporation becomes the counterparty.

#### IV. CONSIDERATIONS TO IMPROVE EXISTING PROCEDURES

##### A. *Trading*

The present electronic system at the DSE provides an adequate trading mechanism for investors. However the very small number of trades that are settling reflects that a very limited number of investors are participants on this system (market). To increase investor confidence and participation in the DSE market, the exchange must provide shorter trading and settlement cycles.

##### B. *Clearing and Settlement*

As mentioned, the final settlement of trade (receive and deliver) should be completed in five days after trade date. In the present trading environment this means that all deliveries of cash and scrip should be done on the 4<sup>th</sup> business day after the last day of trading. If brokers receive daily activity logs and netted receive and delivery reports from DSE at the end of each trading day this can be accomplished. It is important that brokers insure timely deliveries from their customers.

If the present account period settlement is to be continued, PW/FIRE still recommends DSE implement a rolling settlement pilot with T+5 settlement to attract additional investors. The stocks targeted for this pilot should include those with a high delivery history.

To assist in the settlement of large amounts of scrip, consideration should be given to standardizing the size of a round lot (i.e., 100 shares). All odd lots (smaller lots) would be charged a premium. Larger, jumbo lots should be encouraged with reduced processing charges.

Brokers should be required to know their clients sufficiently to insure good deliveries and also timely deliveries. Scrip being sold for settlement should be located in New Delhi or the selling customer should be able to guarantee that it will be delivered to the broker's office prior to settlement.

## **V. NEXT STEPS FOR THE DELHI STOCK EXCHANGE**

To improve the existing clearing house processes or to develop a modern clearing corporation, it is recommended that the DSE form a "Clearing and Settlement Committee." This committee should be composed of members, exchange management and an outside consultant. The committee's task should be to study and make recommendations for the following enhancements:

1. Shortened settlement cycle;
2. Rolling settlement;
3. Depository interface;
4. Round lot vs. Odd lot trading and jumbo certificates;
5. Know your customer rules and delivery requirements;
6. Development of process flow charts; and
7. Development of new clearing house fee structures.