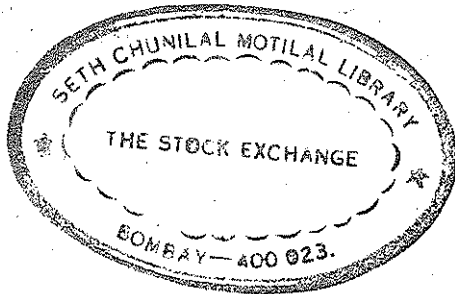
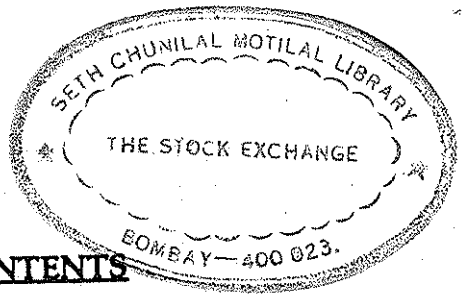




SETTLEMENT,  
SHARE DEPOSITORY  
&  
TRADING SYSTEMS



The Stock Exchange  
Phiroze Jeejeebhoy Towers  
Dalal Street  
Bombay 400 001.



CONTENTS

	<b>Page</b>
1. Settlement System	1
2. Share Depository System	4
3. Trading System	7
4. Implementation Schedule	14

## SETTLEMENT SYSTEM

The present settlement system was designed in mid-1970s when the volume of trading was a small fraction of what it is today. Specifically, the activity level in the market has grown by over 15 times during the last decade. In 1980, the average number of trades in a day was 4,000, while the average for the last 10 months is approximately 60,000. Further, the information requirements from this system have considerably increased, with the result that there is now a clear and urgent need to revamp our settlement system.

The existing system running on the ICIM 6000 computer can process and print the vandhas and comparison memo statements, within the 4-hour time span available in the morning, from 6.30 a.m. to 10.30 a.m., for an overall transaction level for "A" and "B" groups put together of not more than 50,000 per day. The matched statements, called the 1-2-A and 1-2-B, would normally be available for distribution to

members after another 3 hours. Similarly, it has been observed that the settlement run, inclusive of punching (of last day's objection memos/white kaplis), processing and printing, takes anything from 36 to 48 hours, for an overall volume during the settlement of approximately 2,50,000 trades, for each of the groups. It must be pointed out that the above schedules are possible only when (i) tapes containing correct input data are received by 6.00 a.m from the data entry bureaus (for the daily runs), (ii) power or a.c. does not fail during processing and printing, and (iii) there are no system failures affecting either the computer or printers or both.

In view of the anticipated growth in market activity over the next year and also with a view to taking care of some of the problems associated with the existing system, it is proposed to develop a new settlement system, capable of handling about 1,00,000 trades each in "A" and "B" groups, within the 5 hours available before commencement of the market. In the same

way, it is proposed to cut down the time for settlement runs by about 50 %. This is expected to result in more timely generation of outputs from the computer for the volume assumed here. A review is necessary after about a year of implementing the new system, so that future course of action could be determined.

The approach that would be adopted while designing the new settlement system would facilitate easy and quick retrieval of information from the data already stored in the computer, so that management objectives can be met in an efficient manner. This is possible now because of the availability of better software and hardware technology today, which was not the case when this Exchange went in for the present computer system. A total relook at the entire settlement would identify also areas where additional work needs to be done.

It is proposed to implement the new settlement system with higher data handling capacity from February 1, 1992.

## SHARE DEPOSITORY SYSTEM

As the members are already aware, the biggest problem impeding smooth flow of work today relates to ownership transfer in securities as the current legislation does not provide for an easy and trouble-free exchange from the seller to the buyer. A comprehensive Bill aimed at removing many of the procedural hurdles confronting the buyers and sellers, and also paving the way for creation of a securities depository (where stocks could be immobilised), is awaiting Parliament approval. While it is difficult to say with certainty when the Bill would receive the assent of the Parliament, it is, however, not unreasonable to expect that this would happen within the next year.

With the introduction of this Act, transfer of ownership in stocks would become as simple as operating a savings bank account, with the investors expected to maintain their stock accounts with the Stock Holding Corporation of India Ltd. (SCHIL) or any other agency so designated

by the Government. Subsequent transfers are through mere book entries in the depository. Problems relating to improper transfer deeds and stock certificates, and also the effort and the attendant risk, associated with the physical handling and storage of such documents, are eliminated almost completely under this system.

It is the endeavour of this Exchange to work in close concert with all the concerned participants to help establish a securities depository in the country. It is realised that it would be quite some time before the benefits of true immobilisation of stocks could accrue to investors and members. In the meanwhile, it is proposed to strengthen the existing clearing process, especially for the "A" group, by having atleast the badla shares locked up with the central clearing agency, viz., BOI Shareholding Ltd. (BSL). In addition, all activities currently managed by the Clearing House would also be taken over by BSL. This would enable settlement transfers to take place through a book entry system,

reducing tremendously the number of bad delivery cases and the sheer physical effort required at the time of each settlement.

Under the scheme contemplated by this Exchange now, investors and members would maintain their accounts with BSL by depositing their stocks. Investors would necessarily have to go through the members of this Exchange. Subsequent sale transactions in the market would be handled by accounting entries, obviating the need thereby, for both the seller and his broker to engage in tedious paperwork. In the same way, the concerned buyer could also instruct BSL to credit the shares received in a settlement directly into his account.

Work on this scheme is in an advanced stage of completion and the Exchange expects to introduce a system starting with 3 "A" group stocks in about 3 months, i.e. from July, 1991, to be followed up with the rest of the stocks in this group over a further period of 6 months.



## TRADING SYSTEM

With a view to removing many of the bottlenecks prevalent in the current batch settlement system, including the enormous paperwork that it entails, and simultaneously injecting greater transparency to trading, this Exchange has been considering the installation of a mainframe computer connected to terminals in the offices of members, so that a screen-based system of trading could be set up. With such a system, it would be possible to have accurate and timely statistics about market activity, on a host of electronic devices such as tickers, monitors, boards and computer terminals. The automated trading system also addresses the requirement of continuous upgradability, which is an inherent requirement in a market characterised by growth. It is also planned to provide extremely useful value-added information through the network, to members and other public, on company profiles, new issue details and market statistics.

Any new system developed now should, while providing for gradual switchover, also take care of automating the trading process itself. Change from completely manual methods to one assisted by computer for matching of buy and sell orders entered from the offices of members, is today the only solution to tide over the problems caused by growth in trading volumes.

Accordingly, the Exchange proposes to introduce trading in all the non-specified stocks totally on the computer, taking care, however, to retain the basic characteristic of the market. In other words, the system of jobbing would continue to exist; however, in the case of the non-specified stocks, it would be carried out on the computer. Order execution would, therefore, be totally screen-based for this group. It is expected to implement this project immediately after the occupation of the new building is complete, which is expected by the end of this year. Trading in specified shares would,

however, be carried out through the open outcry system, as at present, during this period. Screen-based trading for these active stocks would be considered for implementation at a later stage, depending upon the success achieved and the experience gained from the system established for the non-specified stocks.

The broad contours of the proposed automated trading system for the non-specified scrips are explained below :

### Participants

The system would cover the operations of all the existing market intermediaries, such as client brokers and jobbers, who would continue to perform in the same way as at present. In addition, with the objective of establishing a system to promote liquidity in scrips, existing market participants, be they jobbers or others, would have the choice to become registered jobbers with the Exchange in scrips selected by them, in which case, against the obli-

gation of having to provide continuous two-way quotes, they would be entitled to first priority at the time of order execution. The system contemplated at present, however, does not implicitly assume the presence of registered jobbers, for its basic functioning.

### Quotations Input

At the heart of the order execution process would be the quotations input facility. Registered jobbers would be expected to input quotations into the system for all their scrips through computer terminals situated in their own offices. A certain minimum depth is expected for each of their scrips, and in addition, replenishment of quotes would have to be carried out within a specified time from its getting exhausted. The exact requirements relating to depths and replenishment frequencies have yet to be determined. A participant who is not a registered jobber could input quotations at any time, in any of the scrips he is interested in dealing without restriction.

### Touch Line

Based on the quotations available in the system, the best bids and offers in all scrips would be displayed, in a separate portion of the screen, called the touch line, which would be in addition to the display of other quotations for the same scrips. This information would be available right in the offices of the individual members. The logic to be used for the purpose of prioritisation of quotations, including its inclusion in the touch line, would be price and then depth. Other things being equal, quotations of registered jobbers would be given preference over those of the others.

### Order Types

The system would cater broadly to the following two types of orders: market orders, which would get executed at the touch quote and at subsequent quotations, if the order sizes are greater than the depth figuring in the touch line, and limit orders, which would wait in the system until the ruling prices in the market match the limits

specified. Flexibility would be provided in the system to cater to the requirements of additional types of orders at a later stage.

### Order Execution

Both negotiated and automatic modes of order execution would be possible in the proposed system. In the first case, based on the quotations on display for a particular scrip, a member may communicate with others who figure with quotations for the same scrip, either through telephone or a meeting face-to-face. Concluded transactions would need to be reported to the Exchange within the time limits prescribed. On the other hand, execution of systematised orders, whether market or limit, would be done by the system itself, and the two transacting parties would be accordingly informed. Trade execution would also automatically update the touch line. Further, details of such trades are not required to be reported again to the Exchange. At any point during the day, it would be possible for any member to view his order execution position.

### Information Dissemination

The system would enable all members to have the latest information about ruling prices in the market, the highs and lows for the day, last trade details, cumulative volumes transacted and index values. In addition, it would also provide them with their cumulative positions for the settlement period under consideration. The registered jobber, would in addition, also get complete details about his net positions in each of the scrips that he has handled, along with the current asking rates to breakeven in the market.

## IMPLEMENTATION SCHEDULE

<u>Activity</u>	<u>Month of completion</u>
1. Implementation of BISL's depository system for 'A' group	Oct. 1991
2. Implementation of settlement system	Feb. 1992
3. Introduction of online trading system for non-specified scrips	Apr. 1992
4. Introduction of online trading system for specified scrips	Apr. 1993



