

Stock Exchange Trading in India—Agenda for Reform. L. C. Gupta, Delhi, Society for Capital Market Research and Development, 1992, pp. 123. Rs. 200.

Dr. L. C. Gupta is a well known name among finance academics. I, therefore, had high expectations from his book. After going through the book I was disappointed. The book does not do credit to Dr. Gupta's reputation. It lacks in academic rigor and is full of unfounded generalizations.

The book is organized in two parts. Part one deals with empirical analysis of selected problems. It consists of six chapters. Part two of the book reproduces the reports of two study groups. The first report contains the recommendations of a study titled "Expert Study of Trading in Shares in the Stock Exchanges" conducted by the Society for Capital Market Research and Development in response to a request by the Government of India. The second report contains excerpts from the Recommendations of The High Powered Study Group on Establishment of New Stock Exchanges constituted under the chairmanship of late Shri M. J. Pherwani. Dr. Gupta was a member of this committee. From an academic viewpoint, part one of the book is of more interest and it is supposed to furnish new empirical evidence on the various facets of capital market operations. However, Dr. Gupta's endeavor fails because of an absence of academic rigor.

To take an example, the first chapter of the book tries to examine the volume and nature of speculation in Indian Stock Exchanges. In any empirical study, the researcher must be clear about the definition of the activity that he/she chooses to measure. Moreover, he/she should also have a rationale for the yardstick that he/she chooses to employ. The activity being investigated is speculation and one should, therefore, start with a proper definition of speculation and how it is differentiated from investment. Nowhere does Dr. Gupta define what he means by speculation. Rather, the chapter is full of catchy one liners about speculation and its impact. For example, consider this "Speculation, like medicine, is good in a measured dose but excessive speculation can cause ruinous economic crises" (Page 4, Paragraph 5).

Speculators and investors are differentiated from each other by their investment horizons and their motivation for entering the capital market (Francis¹, Fischer & Jordan²). A speculator looks for a very large return in a very short term, say within a month. An investor, on the other hand, looks for a good return in the long run. (Fischer & Jordan²). The same share can be purchased by two different investors one anticipating the price to rise in the short run—while the other is looking at longer term prospects. The first one is a speculator while the second one is an investor. An empirical study, which proposes to measure the extent of speculative activity, should therefore measure the duration for which the position was kept open and the underlying motivation. In short, it should be a micro study rather than a macro study. Dr. Gupta adopts macro measures.

Two measures are employed by Dr. Gupta for measuring speculation. The first such measure is Share Trading Velocity which is defined as below :

$$\text{Share Trading Velocity (STV)} = \frac{\text{Total Trading Volume in the Shares During a Year}}{\text{Total Market Capitalisation}}$$

Dr. Gupta has not provided any theoretical analysis of the properties of this measure. He has implicitly assumed that $STV \geq 1$ for a particular share means that share is attracting speculative attention.

Let us look at STV (Share Trading Velocity) in some detail.

We use the following notations.

S_i = Total numbers of share outstanding for company i .

X_{it} = Number of shares outstanding for company i traded in day t .

P_{it} = Price at which shares of company i were traded in day t .

N = Number of trading days in a year.

Let us assume the market capitalisation for a share is calculated as the simple average for the year.

Market Capitalisation of Shares of Company i in a year

$$= \frac{1}{N} S_i \left[\sum_{t=1}^N P_{it} \right]$$

$$\therefore STV = \frac{\sum_{t=1}^N P_{it} X_{it}}{\frac{1}{N} S_i \left[\sum_{t=1}^N P_{it} \right]}$$

$$\therefore STV > 1$$

$$\Rightarrow \sum_{t=1}^N P_{it} X_{it} > \frac{1}{N} S_i \left[\sum_{t=1}^N P_{it} \right]$$

To understand the implications of the above let us assume that

$$X_{it} = X_i \text{ (constant)}$$

$$\therefore X_i \left[\sum_{t=1}^N P_{it} \right] > \frac{1}{N} S_i \left[\sum_{t=1}^N P_{it} \right]$$

$$\Rightarrow X_i > \frac{S_i}{N}$$

Then assuming trading takes place for 250 days a year

$$\frac{X_i}{S_i} > \frac{1}{N} \quad \text{if } STV > 1$$

$$\Rightarrow \frac{X_i}{S_i} > \frac{1}{250}$$

$$\Rightarrow \frac{X_i}{S_i} > 0.4\%$$

That if the average number of share traded is more than 0.4% of the number of shares outstanding then $STV > 1$.

Apart from ignoring the theoretical deficiencies of STV, Dr. Gupta made a number of other mistakes in drawing inferences. He concludes that Indian market is speculative by computing STV for the Bombay Stock Exchange, arranging it in descending order of STV and comparing it with trading velocity of shares listed in New York Stock Exchange arranged in decreasing order of trading volume. This is a comparison between unlikes. If Dr. Gupta wanted to prove that STV for Bombay Stock Exchange is more than STV for New York Stock Exchange, he should have used statistical procedures to check his hypothesis. This he did not do. Moreover, his conclusions are based on one year's data. Inferences drawn from a single sample observation can be of questionable reliability.

The second measure supposedly employed by Dr. Gupta for measuring the volume of speculative activity is to compare the trading volume with the share transfers registered by company. Although he proposes this measure, actually he has not done any such comparison. Instead he has provided data on the percentage of shares transferred out of the total issued shares and the percentage of the shareholders out of the total shareholders who transferred their holdings. Since he does not compare what he proposes to, his conclusion is unfounded and can at best be labelled as a hypothesis.

The lack of precision is present in the other chapters too. In the chapter on investors problems he refers to an earlier survey done by him and quotes complaints by shareholders as revealed in his earlier study. No attempt is made to classify and tabulate his survey findings. This chapter is no more than a summary of an earlier book by him. In the chapter of price volatility and margins, Dr. Gupta opines that an appropriate margin system will prevent speculation but he does not justify his opinion with any rigorous analysis. This chapter also demonstrates another fault of the book, namely selective highlighting of data to suit the conclusions. For example in one of the tables (Page 42), Dr. Gupta shows that price change was more than $\pm 10\%$ in 27.1% of the cases of price changes analyzed. He concludes that such price changes in excess of $\pm 10\%$ is a fairly frequent occurrence and hence he recommends that margins should not be less than 25%. One can use the same data and say that for 72.9% of the cases prices moved by less than $\pm 10\%$ and hence a margin of 10% can be reasonably expected to protect the financial integrity of the market. One would have expected some sort of examination of the efficient markets hypothesis in the context of Indian markets. The only chapter where I can say that the data presented were in conformity with the conclusions reached, is chapter 5 titled "The Myth of Market Liquidity". The data here were taken from an unpublished MBA thesis submitted to the University of Hull. It is established that Indian Capital Markets are illiquid. However, one would have expected an analysis of the reasons for this lack of liquidity. I suspect that lax listing requirement and merging of cash and forward markets are some of the major causes for this lack of liquidity.

The recommendations given in part two of the book are sensible. In particular, I think that the suggestion to appoint market makers is an excellent one and should be implemented immediately.

There is a strong need for empirical research on various aspects of capital market operations in India. This book was pregnant with possibilities. But as I closed the book there was a bitter feeling of disappointment in me. One knows about the three versions of falsehood, damn lies and statistics. This book illustrates the wrong use of statistics, inferences drawn on a single sample and selective perception of data. For example consider the following passage from the book :

"An important point is that, speculation being a zero-sum game for the share traders/speculators, the gain made by one represents the loss incurred by this counterpart. That is why in a sudden and sharp share price movement, one-half of the traders/speculators suffer losses while the other half have gains" (Page 41, Paragraph 10, Emphasis added).

The lack of rigor almost makes one feel that as if conclusions were reached before the analyses were attempted. We expected a much better study from you Dr. Gupta.

References

1. Francis, Jack Clark, *Investments : Analysis and Management*, McGraw Hill Book Co, Singapore, 1986, pp. 592-593.
2. Fischer, Donald E. and Jordan, Ronald J., *Security Analysis And Portfolio Management*, Prentice-Hall of India Limited, New Delhi, 1992, pp. 2-3.

— N. Bhattacharyya

I wish to acknowledge my gratitude to my colleague Prof. Dipankar Mitra who went through the draft of this Book Review with painstaking effort. The responsibility for the opinions expressed in this Review is however mine.

— N.B