"PRICING OF A SHARE OF PUBLIC SECTOR UNDERTAKING FOR DISINVESTMENT IN INDIA"

SUMMARY OF THE THESIS

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4. OBJECTIVES OF THE STUDY

In the light of the above discussed rationale and logic of the study, the objectives of the study are:

(i) to determine objectively and ologically, the true and fair and optimal economic values and prices based on the various methods of valuation, which are duly recognised and practiced all over the world by all the stake-holders of disinvestment process.

(ii) to objectively determine whether there was a significant difference in economic prices derived according to different methods of pricing and

(iii) whether any significant difference exists between the disinvested price/s and the market prices in the post disinvestment period both on short term basis and on long term basis.

5. RESEARCH METHODOLOGY

SOURCES OF DATA

The disinvestment process started in India in the year 1991-92. The latest data available at the time of the study are available upto 1997-98. To have a holistic view, the span of the study is the PSUs disinvested during 1991-92 through 1997-98. It was found that during this period 39 PSUs were disinvested in total. For the purpose of the study, all the 39 PSUs are selected The data about PSUs viz. Profit and Loss account, Balancesheet and other financial statements are taken from the 12 Annual Reports of Public Enterprises Survey(volume I – III). In addition to the above, data published by Chartered Finacial Analyst, The Stock Exchange Official Directory, Capital Market and average equity share price quotations published by Taxman are taken into consideration for the purpose of computation and comparision.

METHODOLOGY

To achieve the abovementioned objectives, various methods of valuation viz. Net Tangible Asset Value Method (NAV), Profit Earning Capacity Value Method (PECV), Fair Price Value Method (FV), Price Earning Multiple Method (PEM), Shareholder Value Added Method (SVA), etc. are applied to all 39 PSUs. In addition to the above, the statistical tools such as ANOVA, descriptive statistics, modified Tobin's Q Ratio, log based Un-Adjusted Returns (UAR) and Market Adjusted Returns (MKAR), *inter alia* are applied to arrive at the ological conclusions with respect to objectives of the study

6. CHAPTER SUMMARY

In the first chapter of Introduction, the genesis of privatization/disinvestment in the world, accompanied by definitions, approaches, rationale, the growth of privatization revenues as a percentage of GNP of selected countries all over the globe and identification of existence of paramount problem of determination of strategy economic valuation and pricing of disinvestment are discussed. General problems of privatization with special emphasis on problem of ological determination of strategy of valuation and pricing of equity shares for disinvestment, keeping in mind the rationale and objectives of the study have also been discussed at length. From the available literatures on the subject, it has been found that no scientific study of this kind has been carried out either in the private sector or in the public sector, either in India or outside of India. Thereafter, the research methodology and selection of statistical techniques such as parametric approach of ANOVA, descriptive statistics, modified Tobin's Q Ratio, log based Un-Adjusted Returns (UAR) and Market Adjusted Returns (MKAR) to arrive at the ological conclusions with respect to objectives of the study are discussed.

In the second Chapter of 'Global Disinvestments-An Overview', alongwith the different techniques of disinvestment, selected Country-wise and Sector-wise methods of privatization have been discussed. While, there are in all 21 methods of privatization in general, most popular and widely used methods are Public Offering of Shares, Private Sale of Shares, Sale of Assets, Fragmentation, New Private Investment, Management / Employee buyout, Management Contract and the lease. Strengths and weaknesses of each of the popular methods have been discussed alongwith different motivation for its choice. Determinants and criterion for selection of methods of disinvestment are also discussed. At the end 9 major countries experiences in the implementation of disinvestment are also discussed

In the third chapter 'Indian Disinvestments- an Overview', disinvestment in India, since inception have been discussed. Among others, genesis of Indian PSUs, types of PSUs, broad statistics of its performance in last 10 years and its broad objectives and broad comparison of its achievements and failures have been discussed. However, it is observed that the global wave of privatization, sputter of command economy, astronomical amount of fiscal deficit of diabetic Indian economy, sub-optimal performance of Indian PSUs, etc., have justified the need for disinvestment in India since 1991-92 through 1999-2000. Disinvestment in detail with specific reference to rounds of

disinvestment, method of sale, number of PSUs in which disinvestment have been made, number of shares sold, the amount realised alongwith average annual realisations per equity share of a portfolio of Indian Government, etc. are computed and compared. From the analysis, it has been found that in India,

- Indian Government pursued 'shadow-boxing strategy' of disinvestment. No political and professional "disinvestment impresario" was available for successful implementation of management of strategy of disinvestment.
- With respect to methods of valuation and pricing of a share of Public Sector undertaking for disinvestment, orthodox and raunchy methods of valuation (such as average of NAV and PECV) have been followed. No integrated marketing efforts seem to have been made to market the strategy of disinvestment. This lackadaisical approach, have as a sequel not considered the repertoire of methods of pricing which are practiced all over globe by the acquirers and the divestors including NPV, SVA, MVAA, etc. The shoehorn and need to consider these methods alongwith orthodox methods of valuation were found from the international survey of pricing methods carried out by Coopers and Lybrand Indian Government has followed 'bundling' method' and 'Tender' method of disinvestment for determination of pricing for disinvestment. In a bid to achieve the targets of the later years, legerdemain method of cross-holding between PSUs have also been resorted to, thereby deviating from the strategy of 'stick to knitting' and 'core-competence'.

Besides the above, recommendations of two important committees relating to disinvestment viz. Rangrajan committee and the twelve reports of Disinvestment Commission have also been discussed. It was observed that none of these committees have discussed and recommended the Network of Pricing Methods practiced all over the world. Moreover, none of the latest methods of valuation such as SVA, MVAA, etc. have been recommended, despite availability of international experiences of disinvestments. Therefore, with a view to peep into 'window of opportunities' that add value and create wealth for the sovereign divestor in India and for Indians, the Network of Pricing Methods normally and commercially practiced in a typical decision of management of acquisitions and divestments, all over the globe and in India have been discussed in fourth chapter viz. 'Theory of pricing methods'. Theory of value, price and valuation process alongwith formulae of the Network of Pricing Methods alongwith its

strengths and weaknesses have been discussed and scientifically analyzed in this chapter. Based on the holistic process of valuation, the researcher has attempted to furnish his own definition of 'valuation' in the para 4.00 of the said Chapter. Thereafter, based on, *a posteriori* observations the Network of seven Pricing Methods is selected for the purpose of this study, which is christened as Selected Network of Pricing Methods – a "PHENAKISTOSCOPE".

While in the fourth chapter, the theoretical aspects of Selected Network of Pricing Methods have been discussed, the fifth Chapter 'Fundamental Comparison of Pricing and Mis pricing' is divided in to two sections In section-I, the summary of important financial data derived for the computation of economic share prices based on the selected methods of pricing, alongwith the discussions have been presented in the tabular form. In Section-II of this Chapter, the derivation of economic prices based on Selected Network of Pricing Methods is presented and is compared with the Disinvestment Prices. The parametric techniques of ANOVA and descriptive statistics are applied, to find the economic and statistical significance of the study. With a view to find out strategic significance of disinvestment prices with the derived economic values, sensitivity analysis of the same is also conducted in this Section. Based on the fundamental comparison of the derived data, strong and strategically, economically and statistically significant evidences have been found which, a *posteriori* evidence the incidents of under pricing in all the major disinvestment.

The sixth Chapter ' Market Comparison of Pricing and Mispricing' is also divided in to two Sections. In the Section-I, the detailed computation of new method valuation for deriving the 'Market Value of All Assets' and values of 'Modified Tobin's Q ratio' for all the 39 PSUs have been furnished. The detailed computation also includes the method of deriving the Market Value of Hard Assets and Soft Assets in order to derive the Market Value of All Assets (MVAA). In Section-II, The market based comparison of disinvestment prices with the market prices both on the short-term basis and on the long-term basis is carried out. In addition to fundamental comparison of under-pricing from Indian disinvestment, in this Section Market Comparison of under-pricing covering short term performance and long term performance of Un-Adjusted Returns (UAR) and Market Adjusted Returns (MKAR) of disinvestment prices have also been conducted. Evidences of statistical significance of under-pricing on short-term time interval of 1st day, 15th day and 30th day for all the disinvestments have been observed. As regards long

term performances, in terms of UAR and MKAR evidences of under performance for the initial years of disinvestment have been observed baring the disinvestment year 1994-95. Besides, comparison of average modified Tobin's Q Ratio also evidences the similar results. In the seventh Chapter 'Conclusion and Suggestions', alongwith the chapter summary, finale of the research results and suggestions for the strategy of valuation and pricing of a share for disinvestment are furnished. At the end alongwith annextures, detailed bibliography is also presented.

7. FINALE OF RESEARCH FINDINGS

Keeping in view the above and based on scientific analysis of disinvestment decisions in India especially with reference to paramount problem of determination of ological and optimal value and price a share of Indian PSUs for disinvestment, the following research results are discovered.

(a) Since, the strategic wisdom of the management of formulation and implementation of intended strategy of disinvestment is two way traffic, SWOT analysis of repertoire of all the major methods of valuations and pricing of a share, which are most popular and widely practiced by the acquirer and the divestor, at an international level, have been scientifically conducted, collated and compared. Thereafter, based on strategic, economic and scientific analysis of each method of pricing, the Network of seven methods of pricing for disinvestment decision has been selected for the purpose of study. The Selected Network of Pricing Methods includes methods of valuation / pricing for disinvestment such as, Net Asset Value (NAV), Price Earning Capacity Value (PECV), Fair Value (FV), Net Present Value (NPV), Shareholder Added Value (SVA), Price Earning Multiple (PEM), Market Value of All Assets (MVAA) methods While creating the Network of Pricing Methods, due care has been taken to consider not only the Hard Assets but also the Soft Assets, which has sustaining effect on the Cash-Flows. The study under reference has given special emphasis for determination of strategic valuation of Indian PSUs by way of SVA and MVAA methods of valuation in addition to NPV method which is known as Mother of all the Valuation methods. With a view to help endoscope the ological and objective art of valuation and pricing aspects of management of disinvestment, the researcher has tried to discover the instrument of " **A** PHENAKISTOSCOPE" in which the sovereign divestor can view the different

range of economic values derived from Selected Network of Pricing Methods Phenakistoscope is defined as an optic object resembling the 'zoetrope' – a disk in which figures on the inside of a revolving cylinder are arranged about the central and are viewed through slits in its circumference and paper like a single animated figure. In the similar lines, in the process of determination of valuation and pricing of disinvestments, the derived economic value based on Network of seven methods of pricing which are widely practiced both by the acquirer and the divestors all over the globe, are exhibited in a disk. The animated view of developing negotiating capabilities for disinvestment and acquisition decision can be sharply taken by endoscopic analysis of 'phenakistoscope' by the both, *inter alia*, to add value, create wealth and thus to realise total cash flow returns of disinvestment for all the stake-holders The researcher therefore, christens the Selected Network of Seven Methods of Pricing as a useful instrument of "phenakistoscope" for management of strategy of determination of ological and optimal valuation and pricing of disinvestment.

(b) Fundamentally, economic and intrinsic value of equity shares of all the 39 Central Government PSUs in which major disinvestments have been made, are computed and collated based on Selected Network of Pricing Methods. Aplombically, different economic values for different methods of pricing are found. Since each method of pricing have imparted different economic values, to test the validity of the "null hypothesis" parametric approach of statistical tests by applying the technique of analysis of one way variance (ANOVA) to Selected Network of Pricing Methods have been conducted to draw ological and plausible conclusion As a sequel, strong and statistically significant evidences have been found, which, *a posteriori* reject the validity of the 'null hypothesis' that the means of derived economic values based on the Selected Network of Pricing Methods are equal. These ological research findings strategically, economically, objectively, intrinsically and statistically emphasis the need and motivations both for the acquirer and the divestor, to undoubtedly, desideratum the use the Selected Network of Pricing Methods for determining range of economic values, *inter alia*, to compare cost and benefit of **synergy vs. anergy** of disinvestment strategy. Besides, strong, economically and statistically significant evidences are also found which suggest the use of SVA, NPV, MVAA methods which are

relatively more scientific, modern and value driven in the implementation of the intended strategy of valuation and pricing of disinvestment. To buttress the above mentioned findings, PSUs-wise and method-wise descriptive statistics in the form of Mean, Median, Standard Deviation, Kurtosis, Skewness, Range – Minimum and Maximum of derived economic values are computed and collated. The observed results of descriptive statistic suggests that range of economic values derived by employing each Selected Methods of Pricing imparted diagonally different values which help developed the negotiating capabilities in the process of due diligence. Moreover, the dynamics of derived range of economic values help convince all the concerned stakeholders the strategic impact of disinvestment vs. investment.

(c) Disinvestment Yearwise (DY) Mean Value of Disinvestment Prices (MVDP) of shares of PSUs are also compared and collated with Mean Value of Derived economic Prices (MVDEP) based on SNPM. The observed research results establish the fact of under-pricing of shares of a portfolio of disinvested PSUs. Strong and economically significant evidence of under-pricing are also found based on fundamental comparison of derived economic values of Selected Network of Pricing Methods with mean value of Disinvestment Price. Fundamentally the economic loss due to under realisations is more than the amount realised from the disinvestments, ranging from per equity share (of Rs.10/-) under realisation of Rs.86.83 for 1991-92, Rs.74.61 for 1992-93, Rs.31.95 for 1994-95 and Rs.43.00 for 1995-96 respectively. Moreover, strong economic evidences are found, which makes the use of NPV, SVA, MVAA methods of pricing a desideratum, for fetching better economic realisations, which were not tried by the sovereign divestor in the past. The above observations are presented in the tabular form as under:

TABLE

MISPRICING FROM MAJOR DISINVESTMENTS IN INDIA

YEAR	*MVDP (Rs.)*	*MVDEP (Rs.)*	*UNDER REALIZATIONS PER SHARE OF Rs. 10/- (Rs.)*
1991-92	34 85	121 68	**(-)86.83**
1992-93	42 87	117.48	**(-)74.61**
1994-95	244.96	276 91	**(-)31.95**
1995-96	110.15	153 15	**(-)43.00**
AVERAGE	108 25	167 30	(-)59 05

(d) From the sensitivity analysis of derived economic prices with mean value of disinvestment price, strong and strategically significant evidences are also found that concludes, that the better economic value could have been added, more wealth could have been created and thus, more total returns in cash flow form could have been realised, for welfare of scaling Indians and Indian economy. Strong and significant evidences have been found which suggests that even at 70% level of mean value of derived economic prices (i.e. discount upto 30%), phenomena of under-pricing is observed. Alternatively, one more strategic comparison of mean value of disinvested price with mean value of a minimum and a maximum of range of derived economic prices also evidences the strong evidence of under-pricing at 20% to 58% level of derived economic prices. In other words hiatus of discount to mean value of a minimum and a maximum of range swings from 42% to a high of 80%, thereby evidencing the phenomena of under-pricing.

These resultant under-realizations, due to under pricing of share of PSUs disinvested in India could have been abated to a great extent, if not eschewed in toto, if in the process of determination of disinvestment price, new scientific Methods of Pricing such as NPV, SVA, MVAA, etc. have been recognized and considered. Besides, these mainstream strategic and economic adverse effects of under realisations, knock-on effects of diddles of sub optimal strategy of valuation and pricing of disinvestments includes:

- ❖ Increasing risk to tax-payers who pays more taxes for bailing out sub-optimal PSUs, while inside stake-holders appropriate most of tax-payers fair share of the networth of valuable firms.
- ❖ Demoralizing cost, which in turn demotivate all the stakeholders of disinvestment and of National Developments.
- ❖ Cross-border drifting of wealth in the process of globalization by exotic investors, *inter alia* due to under-valuation of disinvestments.

Therefore, determination of optimal valuation with proper risk-assessment of opportunity costs and benefits of both, the net hard assets and soft assets are s*ine qua non* for Indian economy, for successful implementation of strategy of disinvestment.

(e) While in the fundamental comparison of Disinvestment Pricing, strong evidences of strategic, economic, and statistical significance of under pricing are found, similar evidences have also been found from the research result of market based comparison of disinvestment prices. Scientific comparison of Un-Adjusted Returns (Raw Returns) and Market Adjusted Returns (MKAR) for short term period of initial / 1st day returns, 15th day returns and 30th day returns are computed and collated by comparing the disinvestment price with market price of respective time period Strong and statistically significant evidences of under pricing based on Un-Adjusted Returns and Market Adjusted Returns on short-term basis as aforesaid are found. Similar test have also been conducted disinvestment year-wise (DY) on long term market comparison of Un-Adjusted Returns and Market Adjusted Returns, *inter alia,* by comparing market prices of 1st year of disinvestment followed by average yearly prices through 1997-98. For the disinvestment year 1991-92 and 1992-93 in the first two years of post disinvestment, evidences of mis-pricing in the form of under-pricing of divested equity shares are found. For disinvestment year 1994-95 no similar evidence of market base under pricing is found, *inter alia*, due to sombre stock market scenario in India accompanied by anthology of security scam However, similar evidence of under pricing is found for the disinvestment year 1995-96.

After two years of disinvestment, the evidences of under-performance of disinvestment of PSUs in the Indian capital market are found, which are in keeping with the research results of long term under performance of IPOs by several researchers. Among other reasons, under performance is, *inter alia* due to decelerating the effect of information asymmetry, new methods of price discovery, poor corporate governance of PSUs, involvement of politicians and bureaucracy in the day to day management of PSUs, etc.

(f) Tests of mis-pricing in general and in particular, under performance in the long run are also conducted by computing and comparing the average value of modified Tobin's Q Ratio for the disinvested PSUs. The observed value of 0 84 average modified Tobin's Q Ratio of disinvested PSUs also substantiates the fact of under performance in the market, *inter alia*, not duly recognizing the true economic and intrinsic value and wealth of Indian disinvested PSUs by the

market. These computations are unique in nature and in character, which will help the sovereign divestor to market its disinvestment strategically.

To wit, in general Indian disinvestments have been under priced both in term of Fundamental comparison of Disinvestment prices with the derived economic prices based on the Selected Network of Pricing Methods and market based comparison of market prices with disinvestment prices. *A posteriori*, it has been proved on record that management of strategy of determination of ological valuation and pricing of a share of PSUs for disinvestment was determined by **shirt –sleeves** methods of valuation Therefore, to eschew the same in future, the researcher deems it fit, *inter alia*, to discuss the **crony-relationship** between valuation and pricing of disinvestment in the holistic process of disinvestment with the '**cornea**'. The cornea is window between the eye and the world If, it become scarred because of an accident or decease, the person become blind and the only solution is new cornea. In management of disinvestment strategy also, the strategy of valuation and pricing of disinvestment candidate is like 'the cornea', through which all the stakeholders endoscope the costs (loss/opportunity cost to economy/citizens/tax-payers) and benefits (success) of disinvestments. If, the valuation and pricing of disinvestment is sub-optimal, it may put an end to the life of disinvestment strategy.

(g) For ready reference the researcher deems it fit, *inter alia* to furnish at the end, the pictorial presentation of an instrument of **'a Phenakistoscope'** representing the Selected Network of Pricing Methods (SNPM) and also the Chart depicting the results of Mispricing (under pricing) from major disinvestments in India, for the data presented in the table (*supra*) based on the Fundamental Comparison of Pricing and mispricing

After ological analysis of global and Indian disinvestment in the past 21 years, *a posteriori*, the researcher *aplombically* came to conclusion that for economic, efficient and effective management of strategy of valuation and pricing of disinvestment, the endoscopic view of phenakistoscope comprising of Selected Network of Seven Methods of Pricing is *sine qua non.*

8. SUGGESTIONS

It is undisputed fact that the public sector, not only in India but also all over the globe, is the largest consumer, the biggest employer, the biggest owner of the property, the biggest investor of portfolio of shares, the largest insurer and have had the largest assets and the biggest debts. It is reality of the day that the largest sovereign investor turned into the largest sovereign divestor. Whereas, the Global Financial Markets are becoming convergent, borderless, integrated accompanied by new economy stocks and innovative valuations methods, the pricing of equity shares may for the purpose of investment or disinvestment assumes paramount and cygnet importance for the Government. Since, the sovereign divestor is pursuing implementation of strategy of disinvestment of it's the largest portfolio of assets/equities the ological, optimal and plausible valuation and pricing of assets / equities place paramount importance. In order to fetch better optimal realisations from disinvestment, the following suggestions are made.

- In this study, the researcher has provided the **kinky-potent recipe** tool of **phenakistoscope** in the form of Selected Network of Pricing Methods which may be used as desideratum, for both the acquirer and the divestor in order to determine range of strategic and economic values of assets and equity to be divested / acquired. Endoscopic analysis of phenakistoscope must be conducted before taking decision for disinvestment, *inter alia*, to determine the range of economic prices which will help convince ologically to all the involved stake-holders of disinvestment.
- Since, the endoscopic analysis of phenakistoscope is also being conducted simultaneously by the prospective investor / acquirer, it is desideratum for the divestor to cater larger and better figures of values of PSUs in it so that optimal realizations could be achieved. In order to place better values and prices in the phenakistoscope, at the pre-disinvestment stage itself, the divestor must fundamentally and radically restructure its corporate strategy, business strategy and strategy of finance management in keeping with the expectations and perceptions of the prospective investors/acquirers. Fundamentally the expectations of the prospective buyer are reflected in the new methods of pricing such as SVA, NPV, MVAA, etc. Necessary strategic changes must be carried out in the financial map of PSUs at the pre-disinvestment stage itself so as to enhance the upper range of economic values in a phenakistoscope. This exercise must be carried out well in

advance and if possible atleast before announcing the strategy of disinvestment. However, quality and transparency of financial reporting must be ameliorated for winning the trust of investors.

- After the re-structuring the corporate and financial fundamentals at the pre-disinvestment stage, ological valuation of "Soft Assets" which are not reflected on the Balancesheet but invariably do matters much, must be quantified and marketed for better realisations. Indian PSUs have sizable Soft Assets in the form of Human Capital comprising of technical know-how, skills and expertise and technical capabilities, organisational capital, customer capital, market perceived quality profiles, customer value map, a what / who matrices, research, design, development, training, Competitive advantage being a sovereign investor, etc. Simultaneously, 'Soft Liabilities' such as lack of labour resilience, lack of management autonomy resulting into sub-optimal management competence and market reputation, in the public perceptions must be decelerated to 'nil' or by following the guiding strategy the Soft Liabilities must be converted into Soft Assets. Integrated marketing of Soft Assets and Soft Liabilities in a positive way is *sine qua non* in market economy, *inter alia*, to identify **stash values** in the process of management of disinvestment. Therefore, the strategic and economic value must include both the Hard Assets / Liabilities and Soft Assets / Liabilities. In this study, the researcher has tried to suggest a simple, facile and well accepted approach to determine the market value of net Hard and Soft Assets in Chapter-IV through Chapter-VI (*supra*), which may be used as one of the method of valuation.
- In a market economy, the prospective investor/acquirer also put value on other soft issues and factors Among others they are strategic intent, availability of strategic choice, strategic positioning of PSUs in an industry sector (both at pre and post disinvestment stage), positioning in product life cycle, quality of business processes, composition of portfolio of products / businesses, brands, innovation (both continuous and discontinuous), feasibility of strategic alliances, customer profitability analysis, product profitability analysis, relationship marketing, motivation level of human resources, existence of experience curve and learning curve effect, product profitability analysis and existence of cross-subsidization based on Activity Based Costing / Management, quality of performance measurement system, tax aspects of privatization, methods of payments of

acquisitions, possibility of realizing – marketing synergy – operating synergy – investment synergy and management synergy, entry advantages and exit barriers, positioning in product-market mix (Ansoff's Growth Vector) value chain advantages and availability of strategic choice in the form of competitive strategy (how to compete after deregulation of sovereign monopoly), product – market strategy, and institutional strategy of methods of growth. These soft factors should also be considered by the strategic acquirer in determination of strategic value of PSUs alongwith premium / discount for acquiring controlling interest. All these have consequential effect on future cashflows and its riskyness that also affect the strategic valuation. Therefore, in addition to, ological determination of range of economic values for disinvestment, market in its wisdom also recognize the above mentioned soft factors. As a result of all together, the market has reacted sub-optimally for value and prices of shares of Indian PSUs. Above all, in view of the New Principles of Modern Financial Theory and Practice in the Market Economy, the Risk Management of the PSUs is *sine qua non* for the purpose of creating values, adding wealth and thus, to augment and to realise the total business returns for all the stake-holders.

- *Ceteris Paribus*, inefficient contracting prevents efficient outcomes in Public Firms i.e. government often refrain from signing incentive contracts with their managers and workers, which can be seen as an exogenous impediment to optimal performance. Same analogy of logic can also be applied to privatization officials who are provided with fixed pay salary. Metaphorically, privatization officials are selling the family heirlooms of the state. Therefore, citizens demand accountability and pay officials for collecting and disclosing the information that every citizens need to efficiently enforced the duty of loyalty, competence and care that every officials owes them. For accomplishing the fair and optimal value from disinvestment against all the greed of private kickbacks, '**incentive compensation**' should be provided to privatization officials with contracting information and monitoring structure that reliably rewards them.
- *Ceteris Paribus*, choice of methods of payment for acquisitions also affects the abnormal returns. In acquisitions for cash received actual abnormal returns that were higher than what they were expected by paying stocks. However, manager choices were related to the effect of taxes and asymmetric information. Besides,

timing of disinvestment, behavioral aspects of capital markets in India and abroad, effects of fluctuations in Foreign Exchange rates of Rupee, market efficiency, relative returns of investments from gold and other securities, political stability, etc. also affects the fundamental and market performance of economic prices for disinvestment.

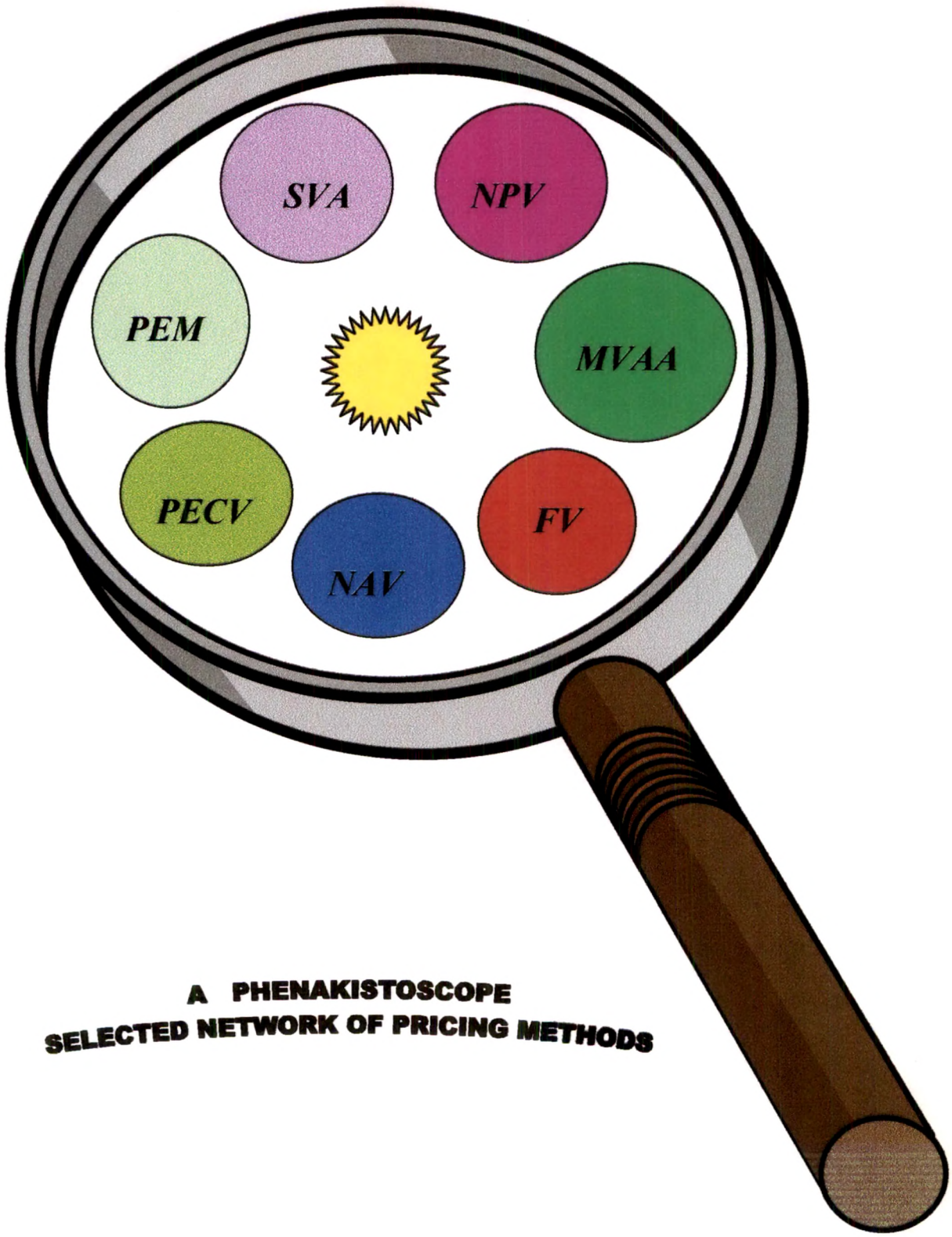
- Last but not the least, above all India needs political and professional team of **'Disinvestment Impresario'**, who act as a **'Team of Stickler'** and not as a **'Team of Squeamish'**, to implement successfully and timely the strategy of disinvestment with eagle eyed vision on ological determination of strategy of valuation of assets/equities of PSUs vis-à-vis the objectives of disinvestment. India need to produce the **'Disinvestment Strategists'**, *inter alia*, to eschew opportunistic and adhoc disinvestment.

To wit, it is needless to reiterate that in the holistic process of formulation and implementation of intended strategy of disinvestment, the ological determination of strategy of optimal valuation and pricing of disinvestment for the achievement of avowed objectives of the strategy of disinvestment is *sine qua non* for the reasons explained in the study. To further ameliorate the value, wealth and the total cash flow return for the divestor and other related stakeholders, the **discovery of a phenakistoscope** for ological determination of strategy of valuation and pricing of disinvestment by the researcher in the study will **bestow as a potent recipe** for all the stakeholders not only in India, but all over the globe for the wellbeing and welfare of global society for the fellow human beings at low cost with better values accompanied by equitable global economic peace.

9. PICTURE AND CHART

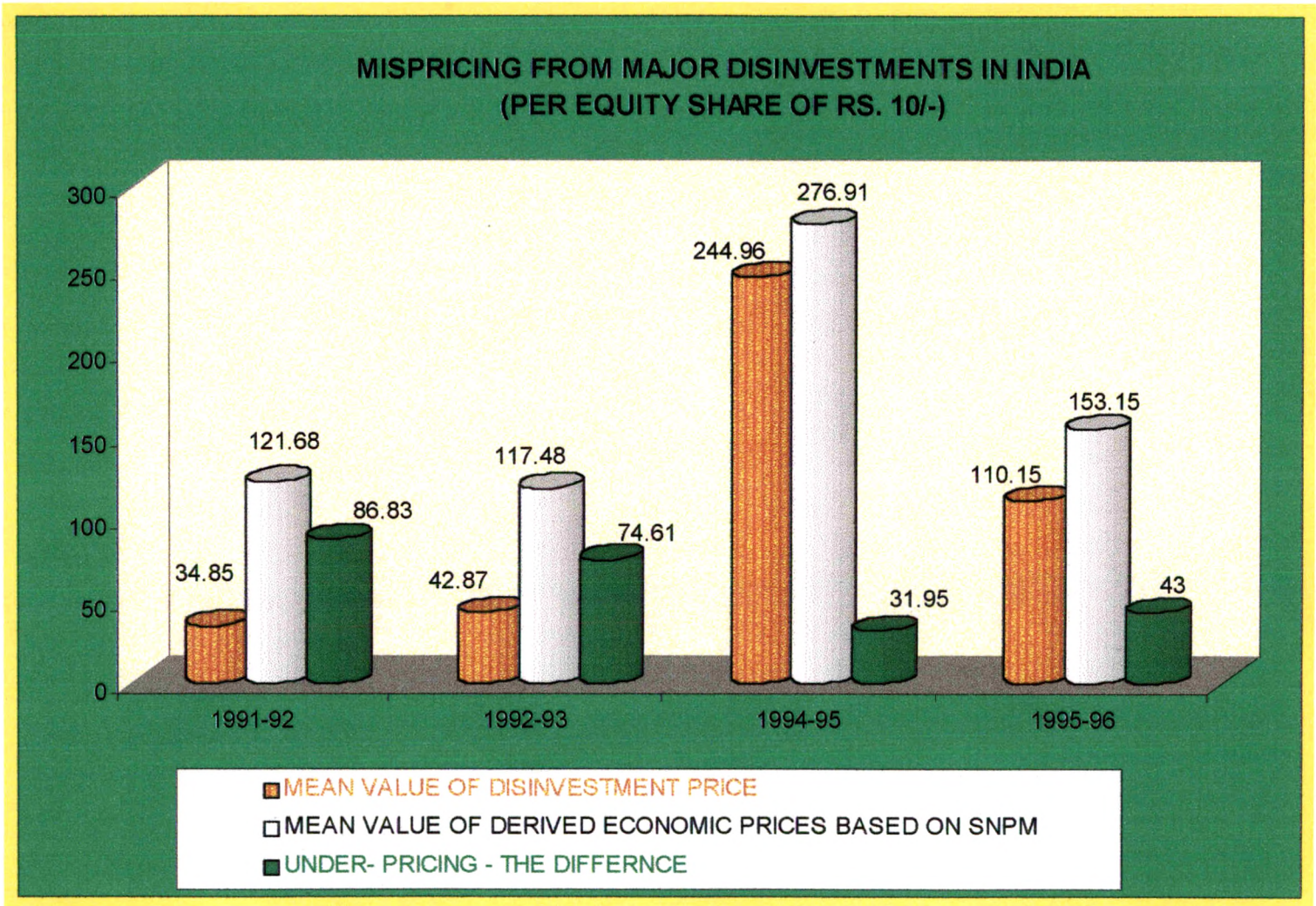
As discussed hereinabove, the picture of a Phenakistoscope and the Chart depicting the Mispricing from major disinvestment in India are presented on the next pages.

9. PICTURE OF A PHENAKISTOSCOPE



A PHENAKISTOSCOPE
SELECTED NETWORK OF PRICING METHODS

9. CHART


MISPRICING FROM MAJOR DISINVESTMENTS IN INDIA
(PER EQUITY SHARE OF RS. 10/-)
300
250
200
150
100
50
0
34.85
121.68
86.83
42.87
117.48
74.61
244.96
276.91
31.95
110.15
153.15
43
1991-92
1992-93
1994-95
1995-96
MEAN VALUE OF DISINVESTMENT PRICE
MEAN VALUE OF DERIVED ECONOMIC PRICES BASED ON SNPM
UNDER- PRICING - THE DIFFERNCE