Disinvestment Of Public Sector Undertakings In India-An Impact Study

Dr. M. K. Ramakrishnan
****Sandhya R.***

INTRODUCTION

In the post independence era, the newly elected Government of our country felt the need for rapid industrialization and rebuilding the nation from its under developed state caused by the British rule. With this end in view, the Government took the lead and introduced five year plans to achieve progress in industry, agriculture, health, education and many other allied sectors contributing to economic development. Governments at central and state level set aside a large portion of its resources for the purpose of promoting Public Sector Undertakings(PSU) which are owned and controlled by the Government. During this period, large number of PSU's sprang up in entire spectrum of industrial activities ranging from infra development to food and agriculture based sectors. Being a mixed economy, the Government also encouraged private investment in industrial field. The key feature of business activity during that period was the absence of competition between public and private sector through a system of reservation, licensing and import barriers. This has gradually reduced the efficiency of both public and private sector of our country in the later years.

During the later part of 80's and early 90's, a paradigm shift took place in the industrial landscape of our country marked by de-reservation, de-licensing and lifting of tariff barriers with a view to keep pace with global trends and to bring efficiency by promoting competition. To cope with the situation, a series of restructuring initiatives were introduced in PSUs and private sectors of our country.

Disinvestment was adopted as a strategy for bringing efficiency in the PSU's by allowing partial or complete entry of private entrepreneurs in the governance of PSU's. The disinvestment strategy also helps the Government to divert funds from industrial activities to its core functions such as defense, law and order, education, health care etc. The disinvestment strategy of PSU's may take different forms ranging from complete transfer to sale of minority shares to private sector. This article studies the impact of disinvestment of PSU's on its financial performance. It stems from the argument that privatization will optimize resource utilization and bring efficiency in to the organization. In many ways, India provides an excellent testing ground for hypotheses about privatization and its impact as the country has a large and well diversified public sector setup in the post independence period.

PRIVATIZATION INITIATIVES IN INDIA

There are several forms of privatization adopted by the Government all over the world. It ranges from denationalization to cold privatization. Privatization in India generally goes by the name of 'disinvestment' or 'divestment of equity.' Disinvestment is a wider term extending from dilution of the stake of the Government to a level where there is no change in control to dilution that results in the transfer of management. The policy of promoting PSU's took a paradigm shift with the announcement of Industrial policy on July 24th 1991, in which the Central Government expressed its intention to bring private sector participation through a system of disinvestment of PSU's except in arms and ammunitions and allied items of defense equipment, atomic energy and minerals. It felt the need for disinvestment because several PSU's had shown a negative return on capital employed. Many of them reported even negative net worth representing complete erosion of invested capital by the Government. This prompted the Government to adopt a new strategy keeping in line with the global trends to reform and improve the PSU's performance.

In the first round of disinvestment, the Government offered bundles of shares of various PSU's (each bundle carrying a

**Lecturer (Selection Grade In Commerce)*,The Zamorin's Guruvayurappan College, Calicut, Kerala.
Email: mk_zgc@yahoo.co.uk
***Research Scholar,* Department of Commerce, The Zamorin's Guruvayurappan College,Calicut,Kerala.

notional reserve price) to local financial institutions. Later, the bidding process was opened to foreign investors and the public at large. The method of disinvestment was widened in 1996-97 when disinvestment was affected through both the GDR (Global Depository Receipts) route and public issue in the domestic market. After the initial round of disinvestment in 1991-92, it was further guided by recommendations made by a Committee on Disinvestment set up in 1993. Later, realizing the sensitivity in political terms of the whole process, the Government constituted in 1996, an independent body called The Disinvestment Commission. The Commission was asked to advice on such matters as to the extent of disinvestment, mode of disinvestment and selection of financial advisors to facilitate the process and so forth to strengthen the disinvestment program. Table 1 presents data to study the actions on the disinvestment front by the Government of India since 1991.

Table 1 :Disinvestment Of PSU's (Rs. In Crores)

YEAR	MODES OF DISINVESTMENT			TOTAL
	MINORITY SALE	STRATEGIC SALE	OTHERS	
1991-92	3,037.74	0.00	0.00	**3,037.74**
1992-93	1,912.51	0.00	0.00	**1,912.51**
1993-94	0.00	0.00	0.00	**0.00**
1994-95	4,843.10	0.00	0.00	**4,843.10**
1995-96	168.48	0.00	0.00	**168.48**
1996-97	379.67	0.00	0.00	**379.67**
1997-98	910.00	0.00	0.00	**910.00**
1998-99	5,371.11	0.00	0.00	**5,371.11**
1999-00	1,479.27	105.45	275.42	**1,860.14**
2000-01	0.00	1,871.26	0.00	**1,871.26**
2001-02	0.00	3,090.09	2,567.60	**5,657.69**
2002-03	0.00	2,252.72	1,095.26	**3,347.98**
2003-04	12,741.62	2,805.79	0.00	**15,547.41**
2004-05	2,700.06	64.81	0.00	**2,764.87**
2005-06	0.00	1,569.68	0.00	**1,569.68**
2006-07	0.00	0.00	0.00	**0.00**
2007-08	0.00	2,366.94	0.00	**2,366.94**
TOTAL	**33,543.56**	**14,126.74**	**3,938.28**	**51,608.58**

Source: The Government Of India, Ministry Of Finance, Department Of Disinvestment,"White Paper On Disinvestment Of Central Public Sector Enterprises" Annexure 7, July, 2007.

It is evident from the table that two methods of disinvestment form the backbone of the disinvestment strategy of the Government. They are minority sale and strategic sale. Out of the proceeds of disinvestment till 2008 amounting to Rs. 51608 crores, they together occupy 92 Percent of the total proceeds. The difference between the two modes lie with the extent of dilution of control in PSU's .Strategic sale involves transfer of control to private entrepreneurs where as, minority sale involves dilution of government stake without transfer of control. Another marked feature of Indian disinvestment experience explained by the table is that most of the disinvestment in the early periods of privatization was marked by minority sale. It took nearly ten years to introduce strategic sale into the disinvestment strategy. This clearly shows the conservative approach of the Government in the implementation of the disinvestment policy.

OBJECTIVES OF STUDY

The main objectives of the study are:

1. To study the impact of disinvestment on the financial performance of the target companies.

2. To study the impact of the methods of disinvestment on the financial performance of target companies.

3. To provide inputs for policy formulations in the area of disinvestment.

METHODOLOGY AND DATA

The present study is a case study. The cases are drawn from the list of companies that were disinvested during the year 2003-2004 through minority sale and strategic sale. It was in that year that the central government has mobilized maximum amount through disinvestment. Further, the Government has used both methods of disinvestment in that year to carry out the disinvestment program. The units selected for the study include two companies representing minority sale and one company representing strategic sale. The companies representing minority sale are Dredging Corporation of India Ltd (DCIL) and Gas Authority of India Ltd (GAIL).The company representing majority sale is Hindustan Zinc Ltd (HZL). The database for the study includes published financial information of the companies, financial portals, journals and various other Governmental and non Governmental publications .

PERIOD OF COVERAGE

The study pertains to a period for 5 years from 2003 to 2008. Financial year 2003-04 is taken as the base year(Pre disinvestment period) in which disinvestment of the companies was completed.A period of 4 years that is 2004-05 to 2007-08 represents post disinvestment period. The performance of the companies in that period was compared with the base year to fulfill the objectives of the study.

The study is based on fundamental analysis of financial information from published sources. We have used accounting ratios extensively to study the financial performance of the target companies. Statistical tools were used to summarize and interpret the results of the study.

REVIEW OF LITERATURE

Disinvestment of PSU's as a method of privatization has created a lot of interest among the academic community all over the world. Our country has a large and diversified pool of PSU's set up in the post independence period. In the late 90's, India joined the band wagon of the supporters of privatization in different parts of the world. This section is devoted to a review of literature on some studies on disinvestment that have been carried out in India and abroad and are of greater significance.

Foreman-Peck and Manning (1988) compared the performance (using total factor productivity) of British Telecom (after it was privatized) with that of five telecommunications enterprises elsewhere in Europe and came up with ambiguous results. They found that British Telecom was apparently less efficient than that of its counterparts in both Norway (where the company was state-owned) and Denmark (where ownership was mixed) but more efficient than those in Spain and Italy (where ownership is mixed).

Bishop and Kay (1989) compared the performance of a number of divested enterprises in the shipping, airline, gas, telecommunications, oil and automobile industries with that of undivested enterprises in the coal, rail, steel, and postal sectors in the United Kingdom, using indicators such as revenue, employment, profits, profit margins and total factor productivity They found an improvement in enterprise performance in both sets of firms. They concluded that the business cycle and the very threat of divestiture could explain the improvements in performance. **Adam, Cavendish, and Mistry (1992)** used country case studies from eight developing countries and found improvements in efficiency in Malaysian firms after divestiture. Among the most detailed studies on the effect of privatization to date is by Megginson et al(1994) . They compared the pre- and post- privatization financial and operating performance of 61 companies from 18 countries and 32 industries during the period 1961 to 1990. They found increases in profitability, efficiency, capital spending, employment (which they admit is a surprising result) and real sales after divestiture. It is worth pointing out, however, that their study found the increase in profitability (measured by return on sales) to be insignificant for regulated industries, such as utilities and banking etc. One shortcoming of this study is that it does not control for changes in the economic environment (which in itself could contribute to improved performance in the post-divestiture period) or for pre-privatization restructuring. This problem has been addressed by **Frydman, Gray, Hessel and Rapaczynski (1997)** in their study of transition economies, part of a substantial body of work on privatization in Eastern Europe. The authors argue that it is not enough to compare pre- and post privatization performance in selected firms. If better firms were chosen for privatization, selection bias could occur. To avoid this bias, the authors combine the two approaches- comparing state and private firms, in addition to comparing pre-and post-privatization performance The authors' analysis was based on a sample of about 190 mid-sized companies in the Czech Republic, Hungary and Poland and covers the period 1990 to 1994 (median employment in the sample: 360

full-time employees; median sales: $6 million). The authors report that the privatization had a dramatic impact on performance, measured by four different variables: revenue, employment, revenue per employee and cost/revenue ratio.

Some important studied focused on the privatizations initiatives of our country are mentioned below.

Ajay Shah (2007) in his article presented a strong cause for privatization of PSU's in India. The difficulties of governments that run businesses are well-known. The PSUs face little "market discipline". There is neither a fear of bankruptcy, nor are there incentives for efficiency and growth.

Sumit K. Majumdar (2005) feels that privatization initiatives have not gathered momentum in India . His enquiry in to the critical success factors for privatization of relevance to the Indian situation are four factors: commitment, competition, transparency and mitigation. These factors interactively make privatization yield the necessary results. Of these four factors, India scores highly on competition and transparency but it scores poorly on commitment and mitigation. A consistent commitment to the cause of privatization, as displayed by Ms Margaret Thatcher's Conservative government, in the early 1980s in Great Britain, is necessary for privatization to succeed.

According to C K Prahlad and others (2000), the goal of privatization should be to improve the competitiveness of India's industrial infrastructure and enable it to become world class. Privatization should not be motivated only by our current account deficits. The social implications of privatization, namely, unemployment and the need for a social safety net must be dealt with openly and fairly in order to achieve a win-win situation to all. To this end, current employees of public sector units should be allowed to share in the benefits of privatization.

R. Nagaraj's (2005) study on the options for disinvestment revealed that disinvestment actions by the Government of India did not secure much revenue, as the stock market was subdued during much of the 1990s on account of a series of scandals that repeatedly rocked the financial markets. As an alternative, he suggested the Japanese and German style interlocking of ownership of complementary PSU's tied together with a bank that enforces greater managerial accountability, and encourages long term outlook of output growth and acquisition of technological capabilities.

D. Sampathkumar (2007) studied the impact of privatization on the financial performance of the divested firms and found that only three of the nine enterprises in which Government ceded management/ownership control in early 2000 have significantly improved their output and profits. However, the researcher has not considered the method of privatization on financial performance .Though this is not an exhaustive survey of literature and findings of empirical work that has gone in to this area, we feel that it does provide analytical framework enabling us to undertake the present study. The forgoing review of literature on privatization initiatives around the world and India reveals that comprehensive studies on the impact of privatization on the financial performance of target firms have not been undertaken in India. The present study intends to fill the gap in literature on this aspect.

ANALYSIS OF RESULTS

The importance of financial analysis stems from the fact that every activity of a firm has financial repercussions. Therefore, the analysis of financial performance is the best way to study the effectiveness and efficiency of firms activities. It is essentially a fundamental analysis intended for identifying the fundamental drivers of company performance and value with the help of techniques such as financial ratios. Ratios allow for reduction of financial data to a manner that facilitate comparison and ultimately, the interpretation of the significance of that financial data. Thus, it enables comparison between firms of different size and also over extended time periods. Ratio analysis is extremely helpful in providing valuable insights in a firms' financial health. This section deals with the analysis of financial performance of target companies during the period 2003-2008 under two time frames-pre and post disinvestment periods.. The ratios used in the present analysis will measure the financial performance from three angles. **They are Profitability ,Liquidity and Resource Utilization Levels.**

ANALYSIS OF PROFITABILITY

Profitability is a common measure of success of a commercial undertaking. Profitability besides motivating entrepreneurs, is also essential for generating resources to continue and expand business operations in an uninterrupted way. In this section, an analysis of profitability is undertaken with the help of some popular measures of profitability.

NET PROFIT RATIO

Net profit ratio establishes a relationship between net profit and sales. It indicates the efficiency of the company in manufacturing, administration ,selling and other core business functions.

Net Profit Ratio = Net Profit / Sales

The Net profit ratios of the Target companies are presented in the Table 2.

Table 2: Net Profit Ratio

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	21	21	21
Post Disinvestment	2004-08	19.63	42.75	31.19
CAGR(%)		**-1.68**	**19.45**	**10.39**
Source: Compiled From Financial Statements				

One of the objectives of privatization is to enhance the profitability of a public sector undertaking .The study revealed that generally, disinvestment has caused improvements in the profitability of enterprises. The combined profitability of disinvested companies has grown at compounded annual growth rate (CAGR) of 10 percentage in the post disinvestment period. However, the improvement in profitability is more significant in the case of strategic sale. Strategic sale has boosted net profit of the enterprise by a CAGR of 19 percentage whereas, their counterparts disinvested through minority sale has reported marginal decline in net profit during the period of the study.

RETURN ON CAPITAL EMPLOYED

Return on capital employed (ROCE) measures return in terms of profits before interests and taxes(PBIT) as a function of the total capital employed.

ROCE = (Net Profit Before Interest& Taxes / Capital Employed) X 100.

Table 3. depicts The ROCE figures of the companies .

Table 3 :Return On Capital Employed(ROCE)

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	23.5	27	25.25
Post Disinvestment	2004-08	21.25	56	38.625
CAGR(%)		**-2.48**	**20**	**11.21**
Source: Compiled From Published Annual Reports				

ROCE is a product of net margin and the efficiency in which the assets are managed. Improvements in any of the two variables will cause positive effects in the ROCE. The CAGR of this vital measure of profitability has shown conflicting results among the disinvested entities. The CAGR of Disinvestment through minority sale has declined marginally by 2.48 percentage points in the post disinvestment period . A further examination of financial statements revealed that this is mainly attributable to a decrease in profitability. The CAGR of profitability measured as net margin on sales (Net profit before interest and taxes) has shown a negative value of 5.99 percentages in the post disinvestment period showing a decline in net margins. In the case of strategic sale, the higher rate of growth in ROCE was attributable to growth in profitability .In the corresponding period, The CAGR of ROCE has increased significantly by 20 percentage points in this mode of disinvestment. The growth in ROCE is mainly attributable to higher growth rate achieved in net margins The net margins (Net profit before interest and taxes) of this category of disinvestment has shown a CAGR of 25.4 percentages whereas, their asset utilization during the corresponding period has shown negative(-9.98%) results. However, disinvestment in general has helped to increase profitability of target companies . During the post disinvestment period, the combined profitability of disinvested entities has recorded a CAGR of 11.21 percentage points.

EARNINGS PER SHARE

Earnings per share (EPS) discloses the earning potential of a company from the view point of equity shareholders. It

expresses the relationship between earnings as a function of the number of equity shares in issue. The ratio is expressed as follows:

EPS= (Net Profit After Taxes And Dividend For Preference Shares / Number Of Equity Shares)

EPS measures how much of a business profit belongs in notional sense to each units of ownership. EPS of the two groups of companies are presented in Table 4.

Table 4 : Earnings Per Share

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	41	10.00	25.5
Post Disinvestment	2004-08	41.75	104.00	72.875
CAGR(%)		**0.45**	**79.58**	**30.02**
Source: Compiled From Published Annual Reports				

The rate of growth in EPS is a critical variable analyzing the profitability because it factors in the inter business differences in capital base or capital structure. The combined EPS has shown increase since disinvestment as indicated by the CAGR of 30 Percentage. A further examination of the mode of disinvestment on EPS reveals mixed results. The CAGR of EPS under minority sale has increased marginally by less than 1% during the post disinvestment period. However, the corresponding figures attributable to strategic sale is a higher rate of 80%. This highlights the impact of the mode of disinvestment on EPS of the target entities. Thus, disinvestment through strategic sale has helped to unlock value of the equity shareholders which will ultimately lead to the higher objective of shareholder wealth maximization.

The analysis of profitability with the help of some key profitability indices has shown evidences to suggest that strategic sale method of disinvestment has contributed to significant increase in profitability when compared to their counterparts disinvested through minority sale.

ANALYSIS OF LIQUIDITY

Liquidity relates to the capacity of a business to pay its obligations as they become due. Liquidity has short term and log term dimensions. In the short term, the analysis is focused on the current assets , current liabilities and operating cash flows. In the long term, it is influenced by the composition of debt and equity in the capital structure.

SHORT TERM LIQUIDITY

The short tem liquidity profile of the disinvested companies are analysed in the following paragraphs. Two yardsticks used for the present analysis are current ratio and cash flow from operations.

CURRENT RATIO

One of the most commonly used measure of short term liquidity is the current ratio. It measures the relationship between two primary elements of liquidity- current assets and current liabilities. It measures the firms' ability to meet short term liabilities from short term assets. Current ratio may be defined as the relationship between current assets and current liabilities.

Current ratio = Current asset / Current liabilities.

Current assets are all asset classes that are converted in to cash within a period of one year and current liabilities are those liabilities that are repayable within a year. The current ratios of target companies are presented in Table 5.

Table 5 : Current Ratio

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	0.33	1.36	0.845
Post Disinvestment	2004-08	2.0925	1.2375	1.665
CAGR(%)		**58.68**	**-2.33**	**18.47**
Source: Compiled From Published Annual Reports				

Traditional approaches to interpreting current ratio used to emphasize ratios such as 2:1 or 1.5 :I as prudential. Data presented in the table shows that the short term liquidity of the companies have increased substantially since disinvestment as indicated by the average CAGR of 18 %.The improvement in short term liquidity is more significant in the case of minority sale as shown by the CAGR of 59%. This shows that disinvestment has helped the target companies to improve their short term liquidity. However, disinvestment through strategic sale has painted a different picture of liquidity as indicated by a marginal decline in the current ratio in the post disinvestment period. However, a more precise study of short term liquidly is done on the basis of cash flow adequacy in the following analysis.

CASH FLOW FROM OPERATION TO CURRENT LIABILITIES

One of the objectives of financial management is to optimize cash flow from operations .In the absence of adequate supply of cash flow from operations (CFFO),a company will have to find non operating sources to maintain liquidity and level of operations. This is an important complement to the Current ratio since it demonstrates whether or not the business needs to generate funds from non trading sources in order to meet short term obligations. The adequacy of cash flow from operation is a more precise measure of liquidity when it is compared with the current liabilities of the firm. This is measured by the following ratio:

CFFO To Current Liability= CFFO/Current liability

A ratio less than 1 shows that operating cash flows are not sufficient to meet current liabilities. This aspect of short term liquidity of the target companies is presented in Table 6.

Table 6 : CFFO To Current Liability

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	0.53	0.54	0.535
Post Disinvestment	2004-08	0.195	2.56	1.3775
CAGR(%)		**-22.12**	**47.55**	**26.67**
Source: Compiled from published annual reports.				

The cash flow adequacy analysis presented in the Table 6 reveals that disinvestment has boosted the cash flow generating capacity of companies. In the post disinvestment period, it has increased to 1.37 registering a CAGR of 27 percent. However, the method of disinvestment is found affecting the operating cash flows. In the case of minority sale, the capacity of companies to generate funds from operations to cover current payment obligation has decreased considerably from 0.53 to 0 .2 registering a negative CAGR 22 percentage. However, strategic sale has increased the cash flow generating capacity of the company from .54 to 2.56 - achieving a CAGR of 48 percentage. This shows a healthy short term liquidity environment of that mode of disinvestment. Thus, a healthy current ratio displayed by the companies disinvested through minority sale(Table 5) is not attributable to operating cash flows.

LONG TERM LIQUIDITY

The log term liquidity position of the disinvested companies is analyzed with the help of Debt equity ratio.

DEBT EQUITY RATIO

The debt equity ratio will measure the extent to which debt financing has been used in the business. The ratio indicates the proportional claims of owners and outsiders against the firm's asset. Debt equity ratio measures the financial leverage of a firm.

Debt Equity Ratio =Debt / Owners' Equity.

The debt equity ratio of the two classes of companies are presented in Table 7.The Table 7 provides insight into the financial leverage of the disinvested entities. It is evident that the debt component of the disinvested companies has reduced in the post disinvestment period as indicated by the negative CAGR of 22 percentage. A comparison between the mode of privatization and on debt equity relationship reveals that the debt reduction initiatives was more pronounced in strategic sale as shown by higher decline in CAGR of this mode of disinvestment. The reduction of debt will ease pressure on the long term liquidity of the disinvested companies. It will enhance their borrowing power for growth and expansion. The lower Debt equity ratio indicates the reduced financial risk exposure of these

Table 7 : Debt Equity Ratio

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	0.19	0.40	0.295
Post Disinvestment	2004-08	0.1025	0.11	0.1075
CAGR(%)		**-14.30**	**-27.18**	**-22.30**
Source: Compiled From Published Annual Reports.				

companies. The analysis further suggests that companies disinvested through minority sale can consider induction of additional dozes of debt capital to unlock value to equity share holders.

The forgoing analysis of liquidity from both short term and long term view points provide ample evidences to prove that disinvestment has caused improvements in liquidity of companies. However, the improvements are more significant in strategic sale mode of disinvestment.

ANALYSIS OF ASSET UTILIZATION

Idleness of invested fund will surely dampen profitability .Thus, efficient utilization of resources is critical for success .This aspect is studied in the following analysis with the help of some working capital and fixed capital measures. In order for a business to function efficiently, there must be funds available to pay off debts. This requires efficient management of all aspects of working capital (usually receivables, inventory and payables). Activity ratios quantify the trading activity of a business in a way that recognizes the direct relationship between the activity and the availability of adequate cash resources on an ongoing basis .An examination of this aspect is undertaken here with the help of two ratios- debtors turnover ratio and inventory turnover ratio. Payable turnover is not attempted for of adequate reliable data from published accounts.

DEBTORS TURNOVER RATIO

Debtors /receivables are claims to future inflow of cash. As debtors represent a significant proportion of the current assets, its collection efficiency is critical in working capital management. Debtors turnover ratio indicates the velocity of debt collection of a firm, a factor contributing to the movements in operating cash flows. In simple words, it indicates the number of times the debtors are turned over during a year. It measures the collection efficiency of the firm. For the purpose of the analyses, it is expressed as Debtors turnover in days(Average collection period).

Debtors Turnover In Days = (Average Debtors/Total Credit Sales) X 365

In this analysis, total sales data is used in place of credit sales for want of reliable information from published sources.

Table 8 : Debtors Turnover (Days)

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	59	29	44
Post Disinvestment	2004-08	71	31	51
CAGR(%)		**4.74**	**1.68**	**3.76**
Source: Compiled From Published Annual Reports.				

The above Table presents Average collection period of disinvested companies .The collection period of disinvested entities on an average has increased in the post disinvestment period from 44 days to 51 days. However, the study of collection efficiency based on the mode of disinvestment reveals a different picture. Collection efficiency of disinvested companies under minority sale has decreased significantly from 59 days to 71 days whereas, the corresponding figures under strategic sale has shown marginal decline in efficiency from 29 days to 31 days during the corresponding period. Thus, it can be concluded that disinvestment has caused decline in collection efficiency of firms.

INVENTORY TURNOVER RATIO

Investment in inventory consume a major part of working capital in a typical manufacturing company. Therefore,

effective control on this segment of working capital is critical for improving the operating cash flows of the firm. Inventory turnover ratio measures the velocity of conversion of stock into sales. It indicates whether inventory has been efficiently used or not. It evaluates the efficiency with which a firm is able to manage its inventory. In the present analysis, inventory turnover is expressed as inventory days representing inventory conversion period. It is calculated as follows .

Inventory Days = (Average Inventory / Cost Of Goods Sold) X 365

Table 9 depicts inventory days figures of disinvested companies.

Table 9 : Inventory Turnover (Days)

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	15	124	69.5
Post Disinvestment	2004-08	16	92	54
CAGR(%)		**1.63**	**-7.19**	**-6.11**
Source: Compiled From Published Annual Reports.				

It is evident from the Table 9 that the inventory management efficiency has improved during the post disinvestment period as indicated by the decrease in inventory days from 69.5 to 54. Usually, a low inventory period indicates the efficient management of inventory. Owing to the relatively larger proportion of Inventory in the working capital investment , a small decrease in the ratio is likely to cause more improvements in the operating cash flows of the company. It is evident from the Table that strategic sale has caused significant improvements in the ratio. The inventory days has decreased from 124 to 92 representing a negative CAGR of 7 percent in this mode of disinvestment. However, minority sale could not achieve improvements in inventory days as indicated by the increase from 15 to 16 days since disinvestment. A further analysis of the financial data revealed that inventory represents a significant part of current assets in the case of the company representing strategic sale. The average inventory to receivable ratio of 1.02 is much higher that the corresponding ratio of .35 for companies disinvested through minority sale .Thus, the improvements in inventory management has boosted the overall working capital turn over and operating cash flows in strategic sale. This aspect is studied in the following analysis.

WORKING CAPITAL TURNOVER RATIO

Let us now turn our attention to the overall efficiency achieved by the companies in the management of Working capital. Working capital turnover ratio indicates the velocity of utilization of net working capital. This ratio indicates the number of times the working capital is turned over in the course of a year. Higher the ratio, the better will be the utilization of working capital and the resulting operating cash flows.

Working Capital Turnover Ratio = Total Sales / Net Working Capital.

The Working capital turnover ratios of the target companies are presented in Table 10.

Table 10 : Working Capital Turnover

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	22	14	18
Post Disinvestment	2004-08	6.13	24.25	15.19
CAGR(%)		**-27.36**	**14.72**	**-4.16**
Source: Compiled From Published Annual Reports.				

The above table presents the working capital turn over ratio for studying the working capital efficiency of disinvested companies. It is evident from the data that working capital efficiency has declined marginally in the post disinvestment period. A detailed analysis of the mode of disinvestment on working capital efficiency reveals that strategic sale helped to improve working capital efficiency. The working capital turnover of this mode of disinvestment has increased from 14 to 24 registering a CAGR of 15 percentage. Corresponding data relating to minority sale shows a decline in the ratio from 22 to 6. This is explained by our earlier analysis of operating cash flows of those companies in the post disinvestment period(See Table 6).

FIXED ASSET TURNOVER RATIO

In a manufacturing company, a sizable part of its capital is tied up in fixed assets. Fixed asset turnover ratio measures the efficiency in the utilization of funds tied up in this form of assets. This is a measure of relationship between net fixed capital investment and the corresponding sales revenue.

Fixed Asset Turnover = Sales/ Fixed Assets.

Table 11 presents fixed asset turnover data for the purpose of the analysis. Fixed assets for the purpose of analysis also include capital work in progress reported by companies.

Table 11 :Fixed Asset Turnover

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	1.34	2.06	1.7
Post Disinvestment	2004-08	1.61	2.37	1.9875
CAGR(%)		**4.69**	**3.51**	**3.98**
Source: Compiled From Published Annual Reports.				

It is clear from the table that the companies have generally improved their fixed asset utilization levels after disinvestment . This is disclosed by the CAGR of 3.98 percentage achieved by them since disinvestment. Significant differences do not exist between the two modes of disinvestment where companies representing minority sale achieved a marginally higher growth rate in fixed asset utilization as shown by their CAGR of 4.69 percentage.

The study of asset utilization levels reveals that disinvestment as well as the modes of disinvestment have caused improvements in the asset utilization levels of PSU's . The positive signals on this aspect of financial performance are more pronounced in the case of strategic sale.

The forgoing analysis of the financial performance of the target companies reveals that there exists wide differences between the financial performance of the two class of companies in the post disinvestment period. The differences are visible in all the three critical aspects of financial performance Viz: profitability, liquidity and asset utilization.

Let us now turn our attention to the combined impact of all the critical aspects of financial performance on the overall financial health of the target companies. For the purpose of analyzing the financial health, Altman (1977) has developed a multivariate model using Multiple Discriminant Analysis (MDA) to predict financial distress of a firm. The model was originally developed to study the financial distress of public companies whose shares are listed in the stock exchanges. The model will generate a Z score to study the level of financial health of a firm.

The model is expressed as follows:

$$Z = 1.2(X1) + 1.4(X2) + 3.3(X3) + .6(X4) + 1(X5)$$

Where:

X1= Working capital/ Total assets

X2= Retained earnings/ Total assets

X3= Earnings before interest and Taxes/ Total assets

X4= market value of equity /Total liabilities

X5= Sales/ Total assets

A Z score below 1.81 indicates high probability for bankruptcy or financial distress. A score above 2.99 indicates a low probability for bankruptcy.

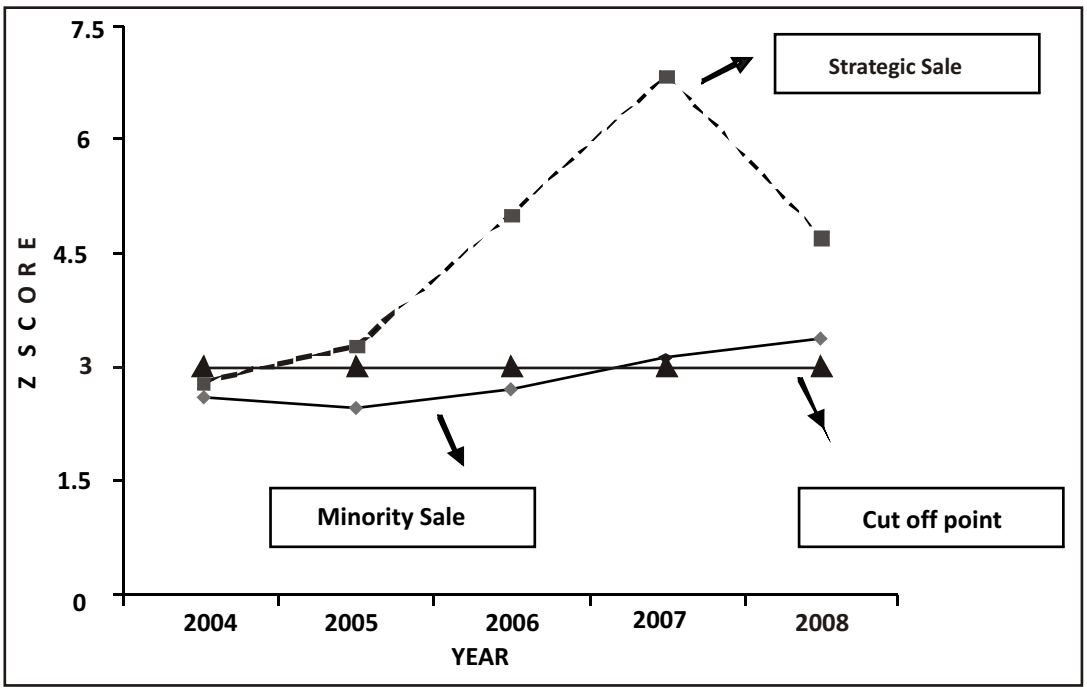
A score between 1.81 and 2.99 indicates grey areas where managerial actions are needed to improve the financial health of the firm.Z scores of the Target companies are presented in Table 12.

Table 12 : Z Score

Time Frame		Minority Sale	Strategic Sale	Average
Pre Disinvestment	2003-04	2.88	2.31	2.595
Post Disinvestment	2004-08	2.91	4.95	3.93
CAGR(%)		**0.26**	**20.99**	**10.93**
Source: Compiled From Published Annual Reports.				

It is obvious from the Table 12 that even though the financial health of the target companies has increased after disinvestment, the comparative analysis clearly highlights the impact of the mode of disinvestment on the overall financial health reflected through the Z score. Strategic sale has clocked 20.99 percentage CAGR in Z scores. During the same time frame, companies disinvested through minority sale could achieve only 0.26 percentage CAGR in their Z Scores. The average Z score of those companies have increased marginally from 2.88 to 2.91. The Z score analysis is further amplified through Figure 1, which tracks the trend in Z scores of companies. It is clear from the figure 1 that the over all financial health has grown rapidly in the case of strategic sale when compared with their counterparts representing minority sale. However, in the later years after disinvestment, some positive trend in financial health is visible in respect of companies representing minority sale .

Figure 1:Z Score



Source: Compiled From Published Annual Reports.

This clearly supports the results of many of the forgoing analysis relating to liquidity, profitability and Asset utilization aspects of target companies performance in the post disinvestment period.

The forgoing study of the impact of disinvestment on the financial performance has revealed that disinvestment of Public sector enterprises will lead to the improvements in financial performance of the target companies. Empirical evidences also suggests that the method of disinvestment strategy will influence the financial performance of the disinvested companies.

FINDINGS AND SUGGESTIONS

Disinvestment of public sector undertakings is gaining momentum in many parts of the world. Our country, with a vast pool PF public sector undertakings set up at central and state Government levels provide ample opportunities to adopt disinvestment strategy in the context of restructuring and reviving the PSU's to meet the challenges of globalization .In the present study, we have examined the impact of disinvestment on the financial performance of disinvested companies. The study examined the financial performance of companies from liquidity, profitability and asset utilization dimensions of financial performance. It was found that disinvested entities generally improved their performance in all the three critical aspects of financial performance in the post disinvestment period. However, there exists significant relationship between the mode of disinvestment on the financial performance .Disinvestment through strategic sale has achieved remarkable progress in all the three aspects of financial performance than their counterparts representing minority sale. The Z score analysis based on Altman model supports this finding of the

study. Therefore, it can be concluded that though disinvestment is likely to cause improvements in financial performance, the mode of disinvestment is the critical factor affecting the financial performance.The modes of disinvestment put for scanning in the present study were strategic sale and minority sale. The strategic sale provides companies more freedom and opportunities to carry out structural changes for achieving rapid growth and to improve their competitiveness. Since strategic sale involves transfer of control from government to private entrepreneurs, such decisions will definitely affect stakeholders interests. Therefore, proper analysis of the relevant micro-macro environment of the target companies should play a major role in the selection of the mode of disinvestment. It requires balancing the stake holder interests and Government's aspirations. Unmindful use of disinvestment will attract sharp criticism and resistance from employees, political parties and general public. Every disinvestment decision is to be studied separately by evaluating its pros and cons. The method of disinvestment successful in one situation or time may not yield similar results in another context. This requires clarity as well as consensus in objectives of disinvestment of the target company. The objectives may range from survival to value creation for customers. The mode of disinvestment should be aligned to the objectives of disinvestment of the target company. For instance, PSU's which are exposed to high level of competition / technological changes , disinvestment through strategic sale will yield better results than minority sale. Minority sale on the other hand will bring positive results in industries where the level of competition is low or the impact of environmental factors are relatively stable / predictable. One of the challenges of disinvestment faced by Government is resistance from employees and other stake holder groups. The resistance can be managed partially by preferential allotment of equity capital to the employees. Timing of disinvestment is also critical for maximizing the proceeds of disinvestment. The state of the stock market, FII activities, Global business trends etc are to be analyzed while timing a disinvestment. Disinvestment requires strategy and the Government should take utmost care in timing, and choosing the method of disinvestment in order to realize maximum results from the process.

BIBLIOGRAPHY

1. Adams, Christopher, Cavendish, William, and Mistry, Percy, "Adjusting Privatization: Case Studies From Developing Countries", James Curry, London, 1992.
2. Ajay shah ,"How important is privatisation in India" The Hindu, March 21, 2007.
3. E. Altman, R.Haldeman and P. Narayanan, "Zeta Analysis: A New Model to Identify Bankruptcy Risk of Corporations," Journal of Banking & Finance, 1, 1977.
4. Bishop, Mathew R., and John A. Kay, 1989, "Privatization in the United Kingdom: Lessons from experience", World Development, 643-657.
5. Foreman-Peck J., and D.Manning , "How Well is BT Performing ? An International Comparison of Telecommunications Total Factor Productivity, University of Newcastle, Department of Economics, Newcastle-upon-Tyne, England, 1988.
6. Frydman Roman, Gray Cheryl, Hessel Marek and Rapaczynski Andrzej "PrivateOwnership and Corporate Performance, Some lessons from Transition Economies", The World Bank, Policy Research Working Paper 1830, (1997).
7. Megginson, W.L., R.Nash, and Matthias Van Randenborgh), "The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis", The Journal of Finance, Vol. XLIX, No. 2, June 1994.
8. R Nagaraj (2005), Indira Gandhi Institute of Development Research Mumbai 400 065.
9. C K Prahlad et al, Proposal on Privatization in India: Ideas on Implementation January 15, 2000.
10. D. Sampathkumar ,"Mixed fortunes for PSUs privatised in 2000" The Hindu December 8, 2007.
11. Sumit K. Majumdar, "Why privatisation is failing in India" the Hindu June 3 2005.