Addis Ababa University
College of Business and Economics
Department of Public Administration and Development Management

A Comparative Analysis of Pre and Post Privatization Performances of State Owned Enterprises (SOEs): The Case of Chemical Industry

By

Binyam Tesfaye: GSE/1374/05

Advisor: Dr. Elias Berhanu

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Department of Public Administration and Development Management

This is to certify that the thesis prepared by **Binyam Tesfaye** entitled **A Comparative Analysis of Pre and Post Privatization Performances of State Owned Enterprises: The Case of Chemical Industry** which is submitted in partial fulfillment of the requirements for the degree of Masters in Public Management and Policy (MPMP), complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Approved by Board Examiners:

Elias Berhanu (PhD.) Signature _____
Advisor

Berhanu Temesgen Signature _____
Internal Examiner

Tariku Atomsa (PhD.) Signature _____
External Examiner

_____ Signature _____
Chief of Department or Graduate Programs Coordinator

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Binyam Tesfaye

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List of Acronyms and Abbreviations

EPA	Ethiopian Privatization Agency
NSPF	Nefas Silk Paints Factory
PEs	Public Enterprises
PPESA	Privatization and Public Enterprises Supervising Agency
ROA	Return on Asset
ROE	Return on Equity
ROS	Return on Sales
SOEs	State Owned Enterprises

Abstract

This paper is intended to examine the pre and post privatization performance of privatized SOEs in the Chemical Industry of Ethiopia. The main concern is to see the financial and operational performances of the case enterprises. The study is based on literature review and used secondary data predominantly. Moreover, some primary data sources were used. Four case firms namely: Alkyd Resin S.C, Addis Ababa Foam and Plastic, Nefas Silk Paint and Addis Ababa Bottle and Glass Factories were taken as point of the study. Primary data were gathered from the respective firms through interview and Annual Audited Financial Reports were reviewed as secondary data source. The study summarizes the privatization performance of the case enterprises in terms of profitability and efficiency measures. The empirical evidence on the financial and operating performances of the privatized enterprises shows a mixed result. The result suggests that the profitability indicators ROS and ROA on average showed a better performance while ROE on average showed a decline. The efficiency measures both sales and income efficiency showed a better performance in all the case firms and the industry [case firms taken as industry] as a whole. While the efficiency measures in terms of the total and fixed asset turnover exhibited a declined performance. The performance indicators as measured by changes in output, change in employment has on average showed a positive increment. The leverage, as expected as in the literature, resulted in a decline at industry level. The current ratio has also improved after privatization. Moreover, the results indicated an increase in production per employee. The findings of this research showed a mixed impact of privatization over firms' performance.

Chapter One: Introduction

1.1. Background of the Study

After decades of poor performance and inefficient operations by state-owned enterprises, governments all over the world earnestly embraced privatization. Thousands of state-owned enterprises (SOEs) have been turned over to the private sector in Africa, Asia, Latin America, and Eastern and Western Europe. This trend was spurred by the well-documented poor performance and failures of SOEs (Boardman and Vining, 1989) and the efficiency improvements after privatization around the world (Megginson et al., 1994; La Porta and López-de-Silanes, 1997; Frydman et al., 1997; Dewenter and Malatesta, 2001; Megginson and Netter, 2001; among many others).

The reasons for pursuing a privatization policy are related to the policy's potential benefits, and most often the policy is part of a macroeconomic reform package with other components to stimulate the nation's economy. The stimuli may be in terms of investment, improved products and services, foreign market access, or increased capital. Some sources state that privatization is the "strong" policy called for because other measures, such as attempts to improve SOEs, do not go far enough; privatization is what is needed, for example, to get rid of excess labor and increase economic competition (Pack, 1987). Lending and/or international agency pressure or persuasion is another compelling reason cited by authors for governments to pursue privatization, as following their recommendations may lead to fresh loans or an increase in donor funding (Leeds, 1991).

There are both political and economic motives for privatization, and while economic motives are more widely discussed in the literatures, the two are intertwined. Authors state that governments are, for example, seeking to improve income distribution and mitigate public service inequalities in the country. Often governments yearn for stability (both political and economic) in times of crisis, and thus implement privatization as the means to a specific end. The various motives are directly related to the success of a country's privatization process, as many authors claim that it can only be measured by comparing results against the specific objectives and goals of the government (Aharoni 1997).

In its narrow sense, the term privatization is frequently used to refer to the sale of the assets or shares of SOEs to individuals or private firms. However, privatization in its broadest sense "encompasses the general reassignment of property rights from the state to the individual" (Berg and Shirly, 1987:2). The process of privatization covers not only the ownership and management transfer of Public Enterprises to the private sector through sales, but also other forms of privatization such as lease arrangements, management contracts, cut backs, liquidation, deregulation, etc. In general, the main objectives of privatization often include the following:

1. Achieving wider share ownership;
2. Introducing more competition;
3. Changing the public private sector mix;
4. Improving the performance of SOEs;
5. Ensuring adequate revenue; and
6. Reducing the frequent political interference in the day to day activities of PEs.

Although the term 'privatization' was originally used to describe economic policies of the National Socialist Party in Germany during the 1930s (Bel, 2006) it only gained popular international prevalence in the late 1970s and early 1980s when newly elected governments in countries such as Great Britain, France and New Zealand commenced programmes of divestiture of SOEs. The scale of such programmes worldwide has been enormous and it is estimated that at the turn of the new millennium the volume of privatization had exceeded €1 trillion. However, global privatization activity has not been confined to the sale of SOEs, as the term has been applied to a range of other public sector reforms including liberalization, de-regulation and contracting out. This wide application of the term 'privatization' highlights a need for clarity about its precise meaning and scope.

Starr (1988) provides a useful working definition of privatization as any shift in the production of goods and services from public to private. According to Starr this more focused definition of privatization includes the following sub-categories:

1. The cessation of public programmes and disengagement of government from specific kinds of responsibilities. At a less drastic level, the restriction of publicly produced services in volume, availability, or quality which may lead to a shift by consumers toward privately

produced and purchased substitutes (called 'privatization by attrition' when a government lets public services run down);

2. Transfer of public assets to private ownership, through the sale or lease of public land, infrastructure, and enterprises; and

3. The withdrawal of government from production but not the financing of services, for example, through contracting-out or vouchers.

An important question is being raised whether the process of privatization or transferring state-owned enterprise (SOE) to private ownership improves operating and financial performance. Whether differences in profitability, output, operating efficiency, leverage, capital investment and employment variables exists in post-privatization? Consequently, the objective of this study is to assess the operating performance of privatization processes of Ethiopia in its pre-post scenarios. To the best of authors' knowledge, no study is conducted in Ethiopia to assess the pre-post performance of privatization process. The study conducted in Ethiopia privatization context largely focuses case studies approach or partial analysis of one sector/industry with limited number parameters of efficiency. The results are mixed, sometimes inconclusive and these studies are too old to rely on. Largely, these studies suffer from limited availability of observations or transactions, relying on limited variables and limited efficiency parameters etc. This study is designed to assess the process based on case study approach with emphasis on financial and operational performance indicators of and with a larger number of observations of transactions to compare both pre-post scenarios of privatization process in Ethiopia.

1.2. Statement of the Problem

The performance of Ethiopian state owned enterprises was very weak. Eshete (1994: 24-27) mentioned the internal and external factors that caused the poor performance of Ethiopian public enterprises. The public manufacturing enterprises had also a lot of problems. The machineries they were using were obsolete, broken and not properly maintained. Spare parts and raw materials were not sufficiently available due to lack of foreign currency. Many of the public enterprises lacked capital to operate effectively. This was manifested in their lack of expansion, maintenance and creation of employment opportunities. So to alleviate these problems, the

government of Ethiopia has introduced privatization; Does privatization really solve these problems? In order to see and verify this issue, this study will try to see the pre and post privatization performances of some selected privatized SOEs especially in the Chemical Industry.

1.3. Research Questions

- What were the pre and post privatization performances in the case of privatized SOEs in terms of profitability and efficiency measures?
- What factors had influenced the performance of privatized SOEs?
- How far did the local investment improved after privatization in the case of privatized SOEs?
- How far did the employment level improved in the case of privatized SOEs?
- To what extent privatization had an impact on the productivity (output) of privatized enterprises?
- What could be the decline in leverage ratio after privatization of the enterprises as claimed by literature?

1.4. Objectives of the study

a. General Objective

The broad objective of this study is to investigate the financial and operational efficiency performances of SOEs in the pre and post privatization periods.

b. Specific Objectives

The specific objectives of this study are:

- To examine the impacts of privatization on the selected enterprises in the Chemical industry using profitability and efficiency parameters;
- To examine the effects of privatization in terms of the productivity, change in employment and leverage performances of the case privatized SOEs;
- To examine the factors that influenced the performance of privatized SOEs;

- To examine the improvement in the local investment after privatization in the case of privatized SOEs;
- Based on findings to draw conclusion and give recommendation.

1.5. Significance of the Study

It has been more than two decades since Ethiopia embarked on privatization. Until 2013, according to PPESA, more than 370 companies comprising a huge amount of human and material resources have been privatized. As the resources and number of employees that are working in privatized enterprises are substantial, this has enormous economic and social effect to the country as a whole. The contributions which could be derived from these enterprises to the nation is a lot, and there are still many enterprises to be privatized in the hands of PPESA, so it is of a much significance to carry out this study.

This study :

- Inform policy makers about the real implications and effects of privatization;
- Recommend solutions for the problems observed;
- Pinpoint the strengths so that concerned bodies will keep them stronger;
- Try to fill lack of evidence by extending the issue to the specific context of Ethiopia;
- Draw attention to managers, stakeholders, government, employees and lending institutions while assessing the relationship between firms' ownership structure and performance in the eyes of privatization;
- Help interested parties in deciding on the privatization investment in terms of its effect on performance. This in turn will assist businesses to plan and implement actions aiming at improving firm's performance by evaluating the existing performance results;

Moreover, the finding of the study may open up future directions for study to those who are interested in dealing with the effect of privatization on financial and operating performance with wider coverage.

1.6. Scope of the Study

The study used three years before and three years after privatization financial and operational data of privatized Chemical SOEs. The data years considered for analysis ranges from 2007 to 2013. The study also focused only on operational and financial performance indicators of privatized SOEs. For the purpose of the research, only privatized SOEs in the Chemical Industry are considered.

1.7. Limitations

Due to limited time and resources collecting basic data was limited to chemical enterprises which are located in Addis Ababa. The data collection process was difficult and most of the data which were required for the study were not sufficiently and easily available. Respondents were not also easily available and most of them were unwilling to provide information.

1.8. Organization of the study

The paper has five chapters. The first chapter mainly focuses on the background and objectives, of the study. Chapter two deals with the literature part which is believed to serve as firm bases for the study. Chapter three will emphasize on methodology, and the design parts of the study. The findings and discussion will be presented in the fourth chapter, while chapter five will deal on the summary, conclusions and recommendations.

1.9. Definition of Key Terms

State owned enterprises - are production units which sell, their output and thus directly in involve in the market process unlike defense, provision of law and order which are not marketed (Turner and Hulimes,1997, 176). An enterprise is a public when the state or any other national, regional or local authority holds at least 50% of the capital; it is under state control and reports to the state, and its objectives are of public and multidimensional nature.

Privatization - To Otto, Albert and Shafritz (1991:109), privatization is a broad and long term movement, often fueled with strong and emotional conservative ideology, to reduce

government expenditure, to return government assets and operation to private enterprise and thereby to increase the efficiency and effectiveness of government.

Other writers like Cowan (1990:6) and Starr (1987:124) define privatization as the transfer of function, production and organization from the public to the private sector. Hemming and Mansoor (1988:31-32) see it from the angle of transfer of ownership and control specifically to asset sales. On the other hand, Bienen and Waterbury (1989:617) explain that privatization is the sale or leasing of assets whereby the government holds the majority. Besides, White and Bhatia (1998:10) defined privatization as the transfer of operational control of an enterprise from the government to the private sector. Similarly, the World Bank (1997:10) defined it as a permanent transfer of control. Generally, all the definitions have things in common that privatization is a partial or full transfer of enterprises to perceived or practical problems.

As per proclamation 146/1998, Privatization means the transfer, through sale, of an enterprise or its unit or asset or government share holdings in a share company to private ownership and includes:

- The making of an enterprise a government contribution to a share company to be formed with the participation of private investors, and;
- The privatization of the management of an enterprise.

Chapter Two: Review of Related Literature

2.1. Definition and Concepts of Privatization

There appears to be no universally agreed definition among scholars regarding the conceptual meaning of privatization. In the most common concept, this term refers to all initiatives designed to increase the role of private entities for applying society resources to produce products and services by decreasing and restricting government or official's roles (Heydari, 2001). In Merriam-Webster Dictionary, the word "Privatization" is defined as "transforming something from state control or ownership to private ownership" (1983, 524).

Jiahua (2007) on the other hand defined privatization as the process in which market mechanism and Adam Smith's theory, Invisible Hand, are again going strong, assessment of government's actions is criticized and thus public sector (government) decides to limit the range of its action and to transform "ownership or management" of some economic entities from state control or ownership to market mechanism. Perhaps, in a comprehensive sense, privatization can be defined as a kind of market-oriented process, moving toward adjusting the role of government and market in economic actions and obviating government monopoly, particularly or generally, over parts of national economy.

2.2. Reasons for Privatization

In the 1950s and 1960s, governments all over the world played an important role in directing and exercising control over their economies. This involved the establishment and administration of large enterprises particularly in the areas of energy supply, transport, communications, basic metal industries, and so forth. The most important factors in the genesis and development of state-owned enterprises included:

- the need to maintain control over strategic sectors and to ensure the delivery of essential services;
- the inability of the private sector to undertake certain large investments that were essential to the economy; and
- the need for the promotion and development of indigenous entrepreneurs to strengthen domestic growth and diversification.

It was natural during this period for governments and state entities to play a significant role in fostering economic growth and assuming social responsibility to moderate inequalities. In the case of transition countries such as Hungary, the public sector developed and grew with the process of nationalization at the beginning of the socialist era following World War II and from the investments made by the socialist states.

When the oil-price shock triggered economic problems of high inflation and economic stagnation that were not resolved with conventional Keynesian policies, the neo-liberal paradigm supported earlier by only a limited group of economists and politicians became more and more dominant. A number of studies were published criticizing the state's role in the economy, some of which pointed to the supposedly inherent non-viability of state-owned industrial firms on the premise that state ownership inhibited the efficient functioning of any such enterprise. Initially, emphasis was placed on the distortion in prices and quantities derived from state action, but the critique later centered on the supposed "inefficiencies" in the public allocation of resources compared with the "always efficient private allocation." Privatization was advocated as the answer to improve both microeconomic (the individual enterprise) and macroeconomic performance.

Given the deficiencies of public enterprises, the difficulties they seemed to be causing the economy, and a desire to increase access to assets by private interests, privatization of these enterprises was seen by international financial institutions as the ideal choice for governments. The primary stated goal of all privatization efforts was to promote the private sector as an engine for growth and to increase efficiency and productivity in the economy.

In general, it was claimed that privatization policies would improve efficiency of resource use, foster competition, enhance the role of the private sector, obtain higher rates of domestic savings and investment and, last but not least, attract and provide opportunities for foreign investors. In addition, privatization would, it was said, reduce the size of the state, reduce the fiscal deficit, provide better services and give the state immediate resources that would be used to reduce short-term debt and invest in social infrastructure or reduce other social expenditures.

2.3. Historical Background of Privatization

Privatization came in to existence in 1980's Britain's Thatcher government, privatization now appears to be accepted as a legitimate often a core-tool of state craft by government of all countries regardless of the intensity where it is applied. Privatization is one of the most important elements of the continuing global phenomenon of the increasing use of markets to allocate resources.

Now a days, privatization and in some cases commercialization have grown in popularity in both developed and developing countries. It has also become an important instrument that government can use to promote economic development, improve the production and distribution of goods and services, stream line government structure, and reinvigorate industries controlled or managed by the state (Rondineli and Iacono, 1996).

The reasons that each country involve into privatization are generally categorized in to three as economic, financial and political (Vickers and Yarrow, 1991). Economic aims are associated with improvements in the performance and efficiency of the privatized firm. Financial reasons are based on the positive effects on public finances, specifically the public deficit, because the State obtains an important source of income from the sale of these enterprises. Finally, political reasons refer to distributional effects on society because privatization allows increasing the number of stakeholders and facilitates the access of citizens to capital markets.

The agency theory (Jensen and Meckling, 1976) justifies the political reason in term of the difference in the principal agent relationship. In SOEs, the principal's objectives are related to the public interest, whereas in private firms, the principal's objectives are related to maximizing the firm's value. Also, the manager (agent) of SOEs has two principals, voters and government, whereas in private companies the principal is the shareholders. According to this theory, there are two fundamental problems: the adverse selection of the agent and the moral hazard because the agent's behaviors cannot be observed at all times (Cohen, 2001). Boycko (1996) also highlight agent problems in the SOEs using a model that shows the gap between the performance and Capital Structure of Privatized Firms in Europe. Privatization has become an acceptable paradigm in political economy of states. It is a strategy for reducing

the size of government and transferring assets and services functions from public to private ownership and control.

Privatization is based the following four core beliefs (Ugorji, 1995):

1. Government is in to more things than it should be. It is intruding in to private enterprise and lives;
2. Government is unable to provide services effectively and efficiently;
3. Public officials and public agencies are not adequately responsive to the public; and
4. Government consumes too many resources and thereby threatens the economic growth.

On the theoretical plane, four distinctive of schools of thought have tried to explain variations of policies applicable to privatization. First, there is free-market ideology of the laissez-fair classical economic theory, which favors the unleashing of the competitive profit motive by emancipating free-market pricing from the interfering hands of state regulation (Samuelson, 1980). It argues that the character of the traders and that of the sovereign are inconsistent, that public administration was negligent and wasteful because public employees have no direct interest in the outcome of their actions. Privatization according to this theory would reap the advantages of market system and competition, namely effectiveness, productivity, and efficient service. This trend will also strengthen market forces with some degree of deregulation, economic liberalization, relaxation of wage and price controls (Ugorji, 1995).

The second school of thought is the public choice approach to policy and political analysis. This approach tries to explains the behavior and provide sets of standards about what the government does. The theory assumes that people are rational, utility-maximizing individual and that economic efficiency becomes the prime criterion for judging the political, social and economic system. Consequently, all the government does is judged in terms of the impact on individual choice and efficiency (Ugorji, 1995).

Public choice posits that the nature of goods and services determines whether they should be provided through the market system or through the public sector. The point is that private goods should be provided by the market where as the government should provide public goods. In sum the theory posited that where public goods provide separable private benefits (e.g.

education) the recipients of the private benefits should be required to pay for net portion of the cost that represents the private benefit (Ostrum and Ostrum, 1991).

Thirdly, populist approach on the other hand argues for allowing citizens more choices in terms of sources of services they purchase. The position is geared towards community enterprises that could be more responsive to the needs of the people they serve. Empowered is seen as the other half equation. As privatization compels government to embrace the efficiency and effectiveness of the market, it must also embrace the community (Ugorji, 1995).

The fourth school of thought is the pragmatist, which advocates alternative approaches to enable the government to provide services with the highest possible efficiency. They believed that private sector may operate efficiently in resource allocation and service; they held that some functions are essentials to the public purpose. Such functions like the provision of public transportation, education and health should be retained by the government and operated on the basis of the advantages that characterize the market operation. Arising out of the above, empirical evidences points to the global acceptability of privatization policy where some of them are discussed below in the empirical literature of financial performance measurement instruments.

2.4. Privatization and Firms Performance: Theoretical and Empirical Studies

Theoretical literature according to Gupta (2001) on privatization considers two types of problems associated with the government ownership: the political problem whereby political interference distorts managers' objectives and constraints, and the managerial problem whereby poor monitoring leads to poor incentives among managers. According to him, in firms that have been fully privatized it is difficult to identify whether the observed improvements in a firm performance occur because the new owners pursue profit maximization rather than other objectives, or because the new owners are better able to monitor managers.

There is a wide range of theoretical and empirical literature relating to the impact of privatization on financial performance of privatized enterprises. The difficulty of reforming state enterprises without privatization and the generally improved performance after privatization support the importance of ownership but do not conclusively prove it. Those who look at the issue

statistically rather than causally argue that ownership change is associated with effective and enduring competition. For example, Shirley and Walsh (2000) sum up the ownership or reform debate based on a review of some 50 empirical studies covering a variety of countries and sectors. They find greater ambiguity about ownership in the theoretical literature than in the empirical literature. The clear majority of empirical studies concluded that privatized and private firms perform better than state enterprises, a finding that is robust across sectors and market structures and across developed and developing countries. Although a few studies find better performance by state enterprises in infrastructure sectors in developed economies, no studies find better performance by state enterprise in any sector or market situation in developing economies. Shirley and Walsh find that private firms do better in fully competitive markets. This advantage persists but is less pronounced in monopolistic markets, and the evidence is less conclusive.

Vickers and Yarrow (1991), reviewing the literature concluded that, private enterprises were more efficient than SOEs in a competitive environment and that, competition may actually be a more important factor than ownership in determining performance. Kikeri (1992) indicate that "in the same vein, in developing countries without a market-friendly policy framework and relatively well-developed regular capacity, privatization is less likely to yield benefits".

Empirically, some analysts concluded that increased exposure to competition accounts for most of positive change shown in privatized enterprises (Parker, 1998). Some journals on privatization strongly suggest that competition has been more important than ownership change in bringing about financial gains.

The advocates of privatization tend to argue that private ownership is more efficient than the public one. Their arguments are based on the claims that the change in enterprise's ownership redefines the enterprise objectives and the manager incentive to reduce costs and increase profit (Shirley and Nellis, 1991). There is a broad consensus that privatized enterprises perform better than SOEs and they are more competitive when compared to previous conditions of government control [(Megginson, (1994); D'Souza and Megginson, (1999)]

Many policy advisors in international research agencies claimed, the benefits of privatization are so obvious. But, there exist some studies that are more skeptical about positive influence of

privatization (Black, 2006). However, Baboukri and Cosset (1998) analyzed the financial performance of 79 newly privatized enterprises in 21 developing countries between 1980 and 1992 and found significant increase in profitability, capital investment, employment and decline in leverage. The change in profitability and efficiency were large in middle-income countries than in low income ones.

Megginson, Nash, and Randenborgh (1994) study 61 privatized firms from 18 countries and 32 industries over the period 1961-1990. They compare these firms' financial and operating performance for three years before and after privatization using financial ratios. Their finding shows significant increases in output, profitability, capital investment spending, operating efficiency, employment, and dividend payout, and a decrease in leverage. D'Souza and Megginson (1999) confirmed these results in an updated study period of 1990-1996 for 85 privatized firms in 28 industrialized countries. In fact the, the 15 privatization studies reviewed by Megginson and Netter (2001) show that firms typically perform better after privatization.

According to Bennett and Johnson (1979), "Without exception, the empirical findings indicate that the same level of output could be produced at substantially lower costs if, output is produced by the private rather than the public sector".

Caves and Christenson (1980) finds "Contrary to what is predicted in the property rights literature, they found no evidence of inferior efficiency performance by the government owned railroad. Public ownership is not inherently less efficient than private ownership….the oft-noted inefficiency of government enterprises stems from their isolation from effective competition rather than their public ownership per se."

Sheikh (1985) conducted the study of the consequences of public ownership on the operational performance of the ghee industry of Pakistan. The study utilized the data on eighteen firms over ten-year period. The author used the national income techniques for calculating public profits and profitability. He finds that the average level of performance after adjusting for changes in prices and capital stock is higher for the period under public ownership as compared to private ownership regime. He further found that improvement in performance was accompanied by improved productivity of capital.

Aharoni (1986) finds "The empirical evidence …lends only limited support to the hypothesis that SOEs are less efficient than private firms. The financial results of SOEs certainly show a dismal picture of losses. However, these losses may be a result of social and political demands on the enterprises. In terms of efficiency, these enterprises' performance is much less bleak. As efficient users of resources, they may have done as well as private firms producing the same product in the same country."

Atkinson and Halvorsen (1986) estimated cost efficiency for a sample of 30 public and 123 private fossil-fuelled electricity generating monopolists and concluded that public and private enterprises did not differ in costs significantly, but both had higher costs.

Boardman and Vining (1989) study finds "There is robust evidence that state enterprises and mixed enterprises are less profitable and less efficient than private corporations". Similarly, Boycko et al. (1993) finds that there is virtually universal consensus that privatization improves efficiency.

Bishop and Kay (1989) evaluated the consequences of British privatization program. The study finds that most privatized industries are grown since privatization and grown more than those industries that have remained in public ownership. However, the study finds that the privatized firms, which are doing well and grown rapidly, were doing better even before privatization. Similarly, the output and profits are grown, margins are increased, and employment has declined. The study finds that privatized industries tend to grow faster and are more profitable, but it seems that the causality runs from growth and profitability to privatization, rather than the other way round.

A thorough empirical study of World Bank by Galal et al. (1994) analyzed the privatization performance of the twelve companies of Britain, Chile and Malaysia. The study raised the question that either the transformation of private ownership increased efficiency? and if yes, then, with how much costs and benefits allocated. The study finds welfare gains in 11 out of 12 companies; no significant case of workers lay-offs and in three cases, performance under private sector was significantly better.

Bousoffiane et.al (1997) by using Data Envelope Analysis (DEA) analyzed the effects of privatization on nine organizations privatized in the UK in 1980s. The study analyzed the technical efficiency of those organizations in pre- and post-privatization periods. The study finds the mixed results. In some cases, there is a clear evidence of an improvement in technical efficiency; in others there is no discernible impact of ownership on performance.

Some empirical research has been carried out in both developed and developing countries to examine the effect of privatization. The studies undertaken in the former attributed the superior efficiency of private firms to market structure rather than to ownership, while the few studies done pointed to marginal efficiency differences between public and private firms (Kikeri, Nellis, and Shirley, 1994).

Earle and Estrin (1997) found empirical evidence that privatization in Russia impacted enterprise efficiency; however, the market structure and budget constraints decreased this effect. Earle and Estrin (1997) further found systematic effects of private ownership on several types of restructuring behavior and on labor productivity.

Grosfeld (1990) showed that Polish privatized firms invested more and had greater capacity to ensure higher output growth. In related studies, Frydman, Rapaczynski, and Turkewitz (1997) and Frydman, Murphy, and Rapaczynski (1998) found that private ownership dramatically improved corporate revenue performance in the Czech Republic, Hungary and Poland although no comparable effect of ownership change on cost reduction was found.

Boubakri and Cosset (1998) examined 79 newly partially- or fully-privatized firms headquartered in 21 developing countries (e.g. Bangladesh, India, Pakistan, Nigeria, Malaysia, and Tunisia) over the period from 1980 to 1990. Boubakri and Cosset reported that newly privatized firms exhibit significant increases in profitability, operating efficiency, capital investment spending, real sales, total employment, and dividends

D'Souza and Megginson (1999) compared the pre-and post- privatization financial and operating performance of 85 companies in 28 countries and 21 industries that were privatized through public share offerings for the period between1990 and 1996. D'Souza and Megginson reported that privatization has led to significant increases in profitability, output, operating efficiency and

dividend payments as well as a significant decrease in leverage ratios. However, Ernst, Edwards, Gregory, and Holt's (1999) examination of 6 Moroccan privatized firms revealed that privatization has a negative or no effect on financial performance.

Osman (2000) explored changes in pre- privatization financial performance and activities of 24 cement companies. He reported statistically significant changes in net period profits and capacity utilization ratios and partially significant changes in investments and production levels in the pre-privatization and post-privatization periods. He further reported a statistically significant decrease in the number of employees and increase in productivity levels.

Perevalov, Gimadi, and Dobrodey, (2000) found empirical evidence on the effect of privatization on performance of medium, large, and extra-large Russian industrial enterprises. Perevalov, et al found that, on average, privatization produces performance improvements in operating profit margin and, to some extent, in labor productivity.

In his examination of 69 Egyptian firms, Omran (2001) reported a positive relationship between ownership structure of companies and their efficiency. He further reported that privatized firms performed better than they had before privatization. Omran further concluded that general liberalization was more important than privatization in explaining behavior.

2.5. Privatization in Ethiopia - An Overview

Ethiopia embarked on the road to liberalization and a market economy in the 1991, after EPRDF came to power; the privatization of state-owned enterprise has become an important element of the nationwide reform program. As a result, The Ethiopian Privatization Agency (EPA) was established in February of 1994 by Proclamations No. 87/1994 and 146/1998 to exercise this task. Since then, EPA has become the lead agency in carrying out the process of privatization of public enterprises. In addition to the powers and duties mentioned, EPA has the power to investigate and decide on claims of ownership in respect of property taken in violation of the relevant proclamations, in accordance with Proclamation No.110/1995 and its amendment proclamation No.193/2000. The Agency is accountable to the Ministry of Trade and Industry and administered by a Board of Directors and managed by a General Manager.

The objectives of the Ethiopian Privatization Agency were:

- To generate revenue required for financing development activities undertaken by the Government;
- To change the role and participation of the Government in the economy to enable it to exert more effort on activities requiring its attention; and
- To promote the country's economic development through encouraging the expansion of the private sector

To see the privatized firms actively involving in the nation macro economy According to Proclamation No. 146, issued in December 1998, EPA is mandated with clearly defined tasks and duties to:

- Implement the privatization program in accordance with the provisions of the proclamation;
- Determine the privatization sequence or define a plan for all enterprises included in the privatization program;
- Undertake the necessary preparatory work for the privatization of enterprises;
- Determine bid evaluation criteria for the selection of investors participating in privatization;
- Prepare the necessary documents to be used in the privatization process;
- Design ways and means of encouraging domestic investors to participate in the privatization of enterprises;
- Take the necessary measures to publicize the privatization program and its implementation;
- Through post-privatization monitoring, ensure compliance of investors obligations, and undertake impact assessment of the privatization process in general and evaluating the financial performance in particular;
- Establish close relations with relevant institutions in the implementation of the privatization program with a view to coordinating their actions;
- Own property, enter into contracts, sue and be sued in its own name.

In addition to the powers and duties mentioned above, EPA had the power to investigate and decide on claims of ownership in respect of property taken over in violation of the relevant proclamations. Regarding restitution, the EPA has the mandate to:

- Register claims of title presented to it in respect of property taken in violation of the relevant proclamations;
- Investigate on the basis of the relevant proclamations the claims and conditions of title submitted to it; to obtain any governmental or private office, organization or establishment as well as from any private person any evidence it deems necessary for such investigation; to hear the testimony of witness and require the production before it of any written evidence;
- Give appropriate decisions on claims in respect of any property taken in violation of the relevant proclamations upon examination of the evidence therefore; and to take the measures necessary for the implementation of same;
- Delegate its powers and duties with detailed implementation guidelines, as it deems it necessary, to the appropriate regional and central government organs;
- Submit to the appropriate government organ proposals regarding claims of title where it finds that they require, beyond examination of evidence, policy or legal determination;
- Issue an order for the purpose of restraining the transfer, to third parties, of any property on which a restitution claim has been lodged, as well as the carrying out of any activity that may result in substantial alteration on such property until decision is made on the claim.

The Ethiopian government, in line with its commitment to encourage the private sector, has so far taken broad based economic reform program. One of the reform measures is a privatization program which has transferred a lot of public enterprises to the private sector.

As long as public enterprises have to continue under state ownership until such a time that they would be privatized, it is necessary to provide them with appropriate guidance and support. Moreover, it is also necessary to support the public enterprises so as to enable them to be competitive and profitable.

In order to arrive at the above-mentioned goals, it became necessary to merge the Ethiopian Privatization Agency (EPA) and the Public Enterprises Supervising Authority (PESA) with a view to coordinating the implementation of the privatization program with the activities of public enterprises. Therefore, Privatization and Public Enterprises Supervising Authority (now agency and hence PPESA) has been established by proclamation no. 412/2004. The agency's powers and responsibilities focus on two major areas i.e. implementing the privatization program as well as provide guidance and supervision to public enterprises.

The major activities of the agency concerning privatization are as follows:

- Undertakes the necessary preparatory work for the privatization of enterprises;
- determines the bid evaluation criteria for the selection of investors participating in the privatization program and designs ways and means to encourage domestic investors;
- evaluates project based partnership proposals submitted by investors and seeks approvals from the Ministry of Industry;
- takes all necessary measures to publicize the privatization program and its implementation;
- through post privatization monitoring, it ensures compliance of investors' obligations, and undertakes impact assessment of the privatization program in general.

2.6. Theoretical and Conceptual Framework

In this section a review of the theoretical framework is presented followed by the conceptual framework. The theoretical framework gives an overview why the decision is taken to privatize state-owned enterprises as well as the theories that support privatization. In the conceptual framework, illustration is made on how privatization affects the financial performance of an organization in terms of liquidity, solvency, profitability and financial efficiency. Each variable is also discussed in detail.

2.6.1. Theoretical Framework

Privatization has been practiced in various countries in the world thus not a new phenomenon in many countries. Graham & Prosser (1991) explain that the British government has been a world leader in the implementation of privatization policies worldwide. Furthermore, a number of

overseas privatization programs are directly modeled on British experiences. According to World Bank (2000), privatization has helped to build infrastructure in western industries & nations for several years. Privatization has been viewed by most of economic actors as an inevitable step of the reforms required for financial performance. In fact the financial performance of an entity is what leads to the discussion of whether it should be privatized or not.

Privatization has proven its economic worth and the shift to private ownership generally improves a firm's financial efficiency. There are few exceptions, but the superiority of private firms over public on several efficiency criteria holds up in most countries, including some that are very poor, and many of the former socialist economies. In their extensive literature review, covering 65 empirical studies at the firm level, and across firms within and across countries, Megginson and Netter (2001) conclude that privately- owned firms are more efficient and more profitable than otherwise-comparable state-owned firms. There are various theories that support the idea of privatization.

In this study, the researcher selected two theories that are relevant to the research area. This is followed by a discussion on financial ratio analysis as the underlying model of this study.

2.6.1.1. Benefit and Cost Theory

This theory argues that privatization will increase market share because privately owned enterprises have better incentives to produce goods and services in whatever quality and quantity to satisfy consumers would desire more. However in this case the companies which tend to succeed are the ones that will be able to meet consumer's needs (market demand and supply forces). This theory then believes that with privatization, the consumers will dictate what should be produced rather than the government choosing.

This mostly reflects short term political pressure for the government as their only produce with the resources that they have causing problems for the management of public sector (Filipovic, 2005).

2.6.1.2. The Maximizing Privatization Revenue Theory

This theory sets out the assumption about the information between the government and the buyers on the true value of the firm to be privatized assuming that the investor (buyer) do not have enough information about the firms profitability. However the theory predicts that the government sale-off of existing SOEs will see to a continuous performance of the function of profit maximization of such firm.

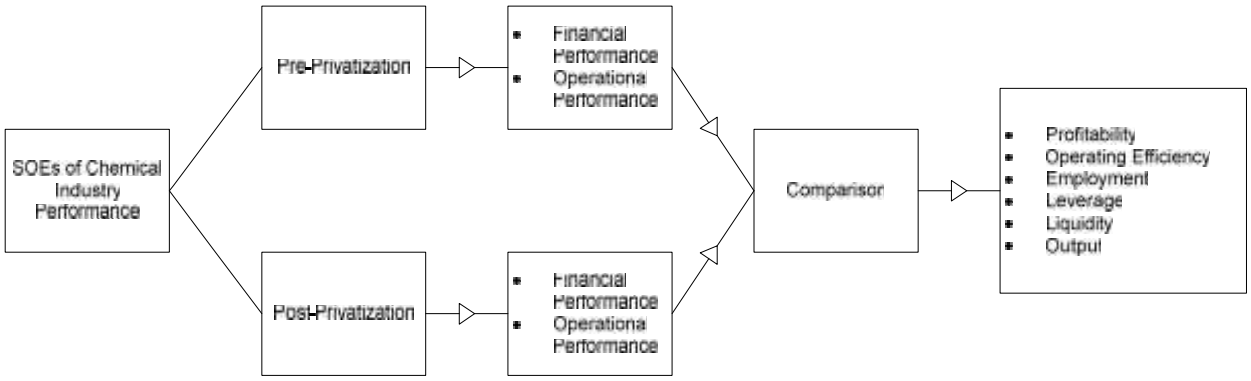
Since the SOE management reports to the relevant government ministry about its financial and operational performance, the government will be able to extract all the information it gets to obtain a reasonable sales price that will equally reflect the true value of the existing SOE before it is privatized.

The bottom line is that as buyer observes the sale of the first SOE, their reaction towards investing in the second SOEs will so much depend upon what premium was made from the first SOE sale or the opportunity that can be made from the second transaction (Roland, 2008; Filipovic, 2005; Vickers and Yerrow, 1991.)

2.6.2. Conceptual Framework

According to Oyieke (2002), privatization involves a movement away from public ownership to private ownership. He argues that such a movement is expected to improve efficiency, profitability and growth. Effects of privatization on an organizations liquidity, solvency, profitability and financial efficiency are expected to be positive hence influence the financial performance of an organization. This effect is then assessed by use of ratio analysis. According to Tuk et al. (1995), the analytical capabilities of ratio analysis have an important place in assessing an organization's current financial state, establishing measures for future strategies and tasks to accomplish its mission, evaluating its performance over time, and deciding how the organization should proceed in the future. These variables and their influence on financial performance are discussed below.

Conceptual framework model of the study



According to the conceptual model, the study compares profitability, operating efficiency, level of employment, leverage, liquidity and output in pre and post privatization period for the chemical industry sector. The comparison is made using the following ratio analysis parameters.

2.6.2.1. Financial Ratio Analysis

The financial function plays a significant role in ensuring that company's objectives are compatible with its resources. Financial information usually serves as the basic instrument of strategic analysis, thus, through the use of published financial data; analysis of the behavior and competence of rival firms within the industry can be performed leading to judgments relating to a company's relative competitive position. It is this information that will enable the firm to realize its strategy and that of its competitors, thus the future survival of the Organization (Mintzberg and Waters, 1989).

Financial analysis therefore forms a very important aspect of corporate evaluations and general business information. The finance function, therefore, performs two major roles in ensuring the survival of a corporate establishment. One is monitoring and evaluating the implementation of its business strategy and involving a reporting role. Second, it serves as a basis for future planning of organizational objectives, which can be used to predict the future of an establishment. Financial analysis of corporate organization is commonly carried out through financial ratios analysis that goes hand in hand with the mission of the organization (Filipovic, 2005)

According to Filipovic (2005), ratio analysis is a good tool to evaluate an organization's profitability, liquidity, solvency and financial stability. According to Abraham (as cited in Turk et al, 1995), the key to analysis and measurement of the financial and operational control and impact is related to the interrelationship between the mission and the financial resourcing and control of the organization.

Further, a financial model provides an appropriate analysis for past performance which will help an organization realize its future directions. Abraham (2006) noted that financial ratio analysis formalizes and quantifies financial data to facilitate comparison within an organization. Ratio analysis provides an efficient means for evaluation of financial conditions and operating performance, by which a decision-maker can identify important relationships, and by which forecasts can be made of an organization's ability to pay its debts. Thus the model is vital in assessing the impact of privatization in an industry in terms of financial performance and act as a decision-making tool for public enterprises within and outside the industry that are lined up for privatization in the future.

2.6.2.2. Liquidity

Liquidity is the ability of a business to meet financial obligations as they come due in the short term, without disrupting the normal operations of the business. Liquidity is measured by current ratio, a measure of a firm's short-term solvency.

This is measured by the ratios of total debt to total assets and debt to equity. It refers to use of fixed costs in an attempt to increase profitability. Firms demand liquidity in anticipation of future financing needs either because it is cheaper to get financing now or because there is a risk that financing will not be available if the firm waits until the need for funding arises. An entrepreneurial firm has an investment opportunity with a known outcome, but only part of the return is pledge-able to investors. When the pledge-able income is insufficient to cover the full investment cost, the firm has to cover the gap with funds it has accumulated from the past. As a result the firm's investment is constrained by the firm's net worth. Liquidity, as measured by the ratio of current asset to current liability, is expected to improve as a result of privatization.

In developing countries, most of the findings on assessment of financial performance before and after privatization concluded that privatization improves the performance of the enterprise particularly a significant increase in liquidity ratio (Kikeri and Nellis, 2004).

2.6.2.3. Solvency

Solvency is defined as credit worthiness of a company. The solvency ratio measures the size of a company's after-tax income; excluding non-cash depreciation expenses, as compared to the firm's total debt obligations. It provides a measurement of how likely a company will be to continue meeting its debt obligations.

Note that the lower a company's solvency ratio, the greater the probability that the company will default on its debt obligations (Pinheiro, 1996). Zhara, Ireland, Gutierrez and Hitt (2000) explained that one of the factors that influences the selection of enterprises for privatizations include their cost of operations and solvency. For example, poorly performing public enterprises frequently are among the first to be privatized, perhaps to buffer the taxpayer from their operating costs. This improves profitability and thus overall performance of the company.

2.6.2.4. Profitability

Profitability is the quality of affording gain or benefit or profit. Return on sales, return on asset and return on equity are the indicators used to measure profitability. Most studies find that privatization has a positive impact on the profitability of firms (Megginson and Netter, 2001).

The study by Megginson, Nash and Netter (1997) that compared the pre- and post-privatization performance of 61 companies in 18 countries and 32 industries; showed a significant increases among newly private firms in profitability, output per employee, capital spending, and employment. It also found that the financial policies of these firms start to resemble those typically associated with private entrepreneurial companies with lower leverage and higher dividend pay-out ratios. The study was able to rule out price increases as a frequent source of profitability increases. It also showed that privatization has a positive effect on a firm's operating and financial performance while maintaining employment.

2.6.2.5. Financial Efficiency

Privatization programs implemented by governments over the past three decades have changed the size and efficiency of global financial markets, altered the practice of corporate finance in economies that experienced large privatizations, and impacted the returns earned by individual investors who purchased stock in a privatized company (Megginson, 2010). According to Adegbite (2000) privatization does not only improve financial efficiency but helps in streamlining the financial procedure as a factor that leads to designing of good financial policies as well as implementation of the same in order to improve the firm's financial performance.

Additionally, privatization has improved in doing away with bureaucratic activities experienced in state owned enterprises thus making financial information of the firm available to the members of the public, that is, public awareness and transparency. This has led to transparency in privatized enterprises, as well as enabling the public to participate in contributing to the development of the organization (Adegbite, 2000).

2.7. Privatization and Profitability

As firms move from public to private ownership, their profitability level should increase. First, given that stakeholders wish to the firms' managers should place greater emphasis on profit goals (Yarrow, 1986). Second, privatization typically transfers both control rights and interest for profit and efficiency relative to pleasing the government with higher output or employment (Boycko, Shlefier and Vishny, 1996). Profitability is positively correlated with leverage, because highly profitable companies tend to use more debt because of tax incentives. Another factor that may affect the firm's debt equity choice is the tangibility of assets. According to bankruptcy costs theory, tangible assets keep their value even in bankruptcy, so firms with more tangible assets can support higher levels of debt at lower costs because of the ability of firms to collateralize their debt (Jensen, 1992).

By contrast, Titman and Wessel (1988) assert that firms with fewer intangibles may choose higher debt levels to limit their manager's consumption of perquisites because bondholders or bankers will closely monitor such firms. Furthermore, according to Rajan and Zingales

(2008), size is positively correlated with leverage; nevertheless, very large firms pay less than small firms to issue equity, so they prefer to issue equity in the capital markets (Ryen, 1997). As in Megginson, Nash and van Randenborgh (1994), the results are more significant for the return on sales (at the 1 percent level) and return on assets (at the 10 percent level) ratios.

2.8. Privatization and Operating Efficiency

Efficiency gains are always expected from the change in ownership structure in competitive sectors. Following privatization, firms should employ their human, financial and technological resources more efficiently because of a greater stress on profit goals and a reduction of government subsides (Kikeris, Nellis and Shirley, 1992; Boycko, Shlefer and Vishny, 1996). As a result of new investment, new technology and improved governance, privatization is expected to lead increase in efficiency. Most empirical studies conclude that SOEs significantly improve their efficiency after privatization. In the international area, Megginson (1994) compare the pre- and post-privatization financial and operating performance of companies and find an increase of sales and capital investment spending and a decrease of debt levels after privatization. Dewenter and Malatesta (2001) carry out a cross-sectional and longitudinal analysis and found similar result.

2.9. Privatization and Capital Investment

Government expects that greater emphasis on efficiency will lead the newly privatized firm to increase its capital investment spending. Once privatized, the firm should also increase its capital expenditures because it has greater access to private debt and equity markets and it will have more incentives to invest in growth opportunities (Megginson, Nash and Van Randenborgh, 1994, (Boubakri and Cosset, 1998).). When efficiency is increased there is likely to be a corresponding increase in capital investment since access to private debt and equity market is less probabilistic. Greater emphasis on efficiency is anticipated to lead newly privatized firms to increase their capital investment spending.

2.10. Privatization and Output

Following privatization, output should increase because of greater competition, incentives and more flexible financing opportunities (Megginson, Nash and Van Randenborgh, 1994).

On the other hand, the theoretical models of Boycko, Shlefer and Vishny, (1996) predicts a fall in output since the government no longer subsidizes the newly privatized firm to maintain inefficiency of high output level. First, following privatization the government should subsidize the firm to maintain high levels of output and employment rather than just order these levels and make the manager/shareholder absorb the cost of low profits (Boycko, Shleifer and Vishny, 1993).

Second, newly privatized firms with a high degree of market power could increase their revenues through a rise in the sale price per unit rather than an increase in the output level per employee (Megginson, Nash and van Randenborgh, 1994). Privatization, when correctly conceived and implemented, should foster efficiency; stimulate investments and thus new growth and employment (Kikeri, Nellis and Shirley, 1992). Following privatization, output should increase because of greater competition, better incentives and more flexible financing opportunities (Megginson, Nash and van Randenborgh, 1994). On the other hand, the theoretical model of Boycko, Shleifer and Vishny (1993) predicts a fall in output since the government no longer subsidizes the newly privatized firm to maintain inefficiently high output levels.

2.11. Privatization and Employment

A study by Kikeris, Nellis and Shirley (1986), suggests that once a firm is privatized it absorbs surplus labor through new capital investment and more productive use of the prevailing organizational resources or assets it has transferred with. Megginson, Nash and Van Randenborgh (1994), suggests that privatization does not necessarily mean a decline in employment level. In contrast, (Kalu, 2001) states that the immediate effect of most privatization program has been that of employment loss not only because there tends to be substantial overstaffing in public enterprises, but also because new owners typically prefer to begin with less than ideal levels of employment to allow for greater flexibility in both the number of workers and the contracts under which they are employed. In other words privatization is assumed to have negative effect on employment in the short run but expected to have a positive effect in the medium and long run (Kalu, 2001). Finally, Laporta and Lopez-de-Silanes (1997) find a sharp decline in employment for Mexican privatized firms.

2.12. Privatization and Leverage

The switch from public to private ownership is supposed to lead to a reduction in the proportion of debt in the capital structure since the government might end debt guarantee which in other words will increase the cost of borrowing due to firm's new access to public equity markets. Megginson, Nash and Randenborgh, (1994) suggests that leverage to decrease after privatization because of the removal of government debt guarantees the firms' borrowing that result in an increase in costs and because newly privatized firms should have enhanced their access to public equity markets. Finally, according to Laporta and Lopez-de-Silanes (1997), privatization has resulted in decrease in leverage ratio.

From the above discussion of the international experience it is evident that the impact of privatization on financial performance is mixed. While some studies indicate that privatization could lead to an improvement in firms performance and others studies show the contrary (negative impact). Yet some other studies found that no difference in financial performance between privatized enterprises and those enterprises still owned by the state (neutral impacts).

Chapter Three: Research Methodology

3.1. Methods of the Research

The study is non experimental in approach. First, non experimental refers to research that lacks manipulation of the independent variable by the researcher. Hence; the researcher studies what naturally occurs or has already occurred; and how variables are related. The researcher chose non experimental because the research cases are not subject to experimental manipulations or randomization (Kate Ann Levin, 2006:24D5).

A case study is a way of organizing data and looking at the object to be studied as a whole. All aspects are considered, which means that the development over time of the event constitutes an important dimension. According to Paton (1990), a case study seeks to describe a unit in detail, in context and holistically. A case study becomes particularly useful when one can identify a case rich in information- rich in the sense that a great deal can be learnt from a few examples of the phenomena under study. In this regard the study will be conducted on a case study approach.

3.2. Data Sources and Types

The research is conducted predominantly on secondary data sources. The secondary data is composed of audited financial statements of the enterprises and published (in which the study used published financial data of the four case enterprises for the period 2007-2013) and unpublished materials that include books, journals, magazines, related websites, reports of PPESA and other documents that are specifically related to the topic of the study. Some primary data are collected through interview to triangulate the information gathered from secondary sources.

3.3. Sampling Techniques/Method/s

The selection of the case firms was conducted systematically on the basis of a number of criteria: the research objectives, accessibility of the firm, firm size, the composition of the firm's ownership, the business in which the firm was engaged and the number of years the firms stayed in operation after being privatized.

According to a report of PPESA, in the privatization process so far, eleven SOEs are privatized in the Chemical Industry. Out of these six of them are dropped since they are privatized recently and comparison of pre and post performances is difficult. Due to unavailability of data the researcher is forced to disregard one enterprise since the enterprise i.e. National Cement Factory is located in Dire Dawa. The rest four are Alkyd Resin S.C., Addis Ababa Foam and Plastic S.C., Addis Ababa Bottle and Glass S.C., and Nefas Silk Paint Factory, which the researcher believed that they qualify for the study since there are three year pre and post privatization data. A purposive sampling method is employed.

3.4. Sample Size

As stated earlier, for the purpose of this research population of the study is defined as privatized chemical SOEs in Ethiopia. Given the resource constraints and other variables, the sample of respondents are drawn from enterprises that are located in the capital. The research is conducted on four purposely selected privatized firms in the chemical industry.

3.5. Data Collection Methods/Instruments

The secondary data is collected through review of documents and audited financial reports of the enterprises. The primary data is collected through face-to-face interview with the managements [different levels Executives, Department heads and Employees at Managerial level of the case enterprises] and selected key informants from the case SOEs, experts from PPESA. The key informants are selected based on their appearance in the case privatized SOEs during pre and post privatization period.

3.6. Data Analysis Method/s

Ratio analysis is used to assess the financial and operating performance during the pre- and post-privatization periods, based on:

a. Profitability
b. Operating Efficiency
c. Employment
d. Leverage
e. Liquidity
f. Output

Interviews based on findings are used in the study to verify the accuracy of data. Focus was made on selected financial experts, top and middle level management at the case enterprises. Data is analyzed using quantitative statistical tools mainly tables, charts and graphs. Inferences are also made based on the output. All the analysis is done with the help of a Microsoft XL statistical tool.

The collected data is analyzed using the required financial ratios that are presented below. After measuring mean of the parameters for pre and post privatization periods, the researcher checked whether there have been changes in the performance of the firms between post and pre privatization periods.

Specifically, this study tests the hypothesis that after privatization, the firms increase profitability, operating efficiency, decrease employment, decrease leverage and increase current ratio. To do so, the study used the following testable predictions and empirical proxies which are presented below:

Table 1: Testable Predictions

Characteristics	Proxies	Predicted Relationship
Profitability	ROS=NI/Sales ROA= NI/Total Assets ROE= NI/Total Equity	$ROS_{(A)} > ROS_{(B)}$ $ROA_{(A)} > ROA_{(B)}$ $ROE_{(A)} > ROE_{(B)}$
Operating Efficiency	SALEFF=Sales/Total Employment NIEFF=NI/Total Employment SATA=Sales/Total Assets SAFA=Sales/Fixed Assets	$SALEFF_{(A)} > SALEFF_{(B)}$ $NIEFF_{(A)} > NIEFF_{(B)}$ $SATA_{(A)} > SATA_{(B)}$ $SAFA_{(A)} > SAFA_{(B)}$
Employment	EMPL=Total Number of Employees	$EMPL_{(A)} < EMPL_{(B)}$
Leverage	TDTA=Total Debt/Total Assets	$TDTA_{(A)} < TDTA_{(B)}$
Liquidity	- Current Ratio (CR) = Total Current Asset/Total Current Liability	$CR_{(A)} > CR_{(B)}$
Output	- SAT=Sales	$SAT_{(A)} > SAT_{(B)}$

Source - Megginson et al (1994)

The firm level analysis focused on determining whether the privatized case firms had indeed achieved the results as predicted with respect to improved practices, firm performance as shown in the above table, and the implementation of business plans. In order to measure the

performance of each firm, ratio analysis is conducted. Through the ratio analysis, factors which affect the performance and efficiency of firms are identified.

Relevant descriptive statistical methods are used to come up with the appropriate results. The methods include percentages, ratios, averages, etc. Attempts are made to support the analysis with related literature and a sort of comparison with the experience of other nations in general but Africa in particular where deemed necessary.

3.7. Ethical Consideration

The researcher ensures that all the information presented in this research is based on informed consent of the information providers. All the participants in the research have participated voluntarily; there is no coercion or deception. The researcher holds confidentiality and anonymity of respondents and participants in the research.

Chapter Four: Data Analysis and Interpretation

4.1. General Background

The purpose of this study is to evaluate the impact of privatization on the financial and operating performance of the case privatized enterprises. The study is based on comparing different financial and operating performance criteria and ratios of the case firms in the pre-privatization and post-privatization eras. These criteria include operating performance, profitability, liquidity, leverage, and investment and production level, production per worker, capacity utilization rate, and number of workers.

In order to analyze the performance of Chemical Enterprises, the year of privatization was assigned a zero value and the average ratios of the company's performance were calculated. Data were obtained from the annual financial reports of the case enterprises three years before and three years after privatization. Performance criteria were calculated and compared to determine whether there are significant differences among them in the pre- and post-privatization periods.

In this part of the paper, analysis of the data collected is made using the concepts mentioned in the literature review part. The analysis compares the pre privatization and the post privatization financial and operating performance of four privatized enterprises engaged in different activities while in the same Chemical Industry Sector. The samples were chosen on a purposive and judgmental sampling basis. The criteria used to select these samples was the availability of financial data and the ability of companies to produce annual financial reports since most of the privatized firms are small public retail shops, warehouses, small hotels and restaurants, manufacturing industries and agro processing industries. Financial statements are analyzed with the help of financial ratios. The performance changes in variables from pre privatization to post privatization periods are carefully analyzed.

Table 2: List of case privatized firms with their respective year and price of acquisition.

Name of the firm	Year of privatization	Price of Acquisition in Ethiopian Birr
Alkyd Resin S.C.	August 6, 2008	25,400,000
Addis Ababa Foam and Plastic Factory	May 2010	58,152,218
Addis Ababa Bottle and Glass Factory	May 2010	60,968,600
Nefas Silk Paints Factory	May 5, 2010	73,582,218

Source: PPESA

4.2. Predictions and methodology

Most governments adopt privatization programs with concrete (often very optimistic) objectives in mind. Generally the more important objective is to improve the operating and financial performance of the former SOEs by exposing them to market forces. Specifically, almost all governments expect that privatization will increase operating efficiency of firms and cause firms to increase their capital investment spending.

While government policy regarding privatization is primarily aimed at increasing the operating efficiency of the former SOEs, the switch from state ownership to private ownership should have a predictable impact on a firm's financial policies. This switch from public to private ownership will cause firms to decrease the proportion of debt in their capital structures because the state's withdrawal of debt guarantees will increase the firm's cost of debt and/or the firm will have access to equity sources.

To test these predictions, this study has first computed empirical proxies for every case company for a six year period three years before and three years after privatization where the mean of each variable for each firm over the pre and post privatization periods is computed. Having computed pre and post privatization means, the study has compared the pre and post privatization performance of the firms (longitudinal approach). The performance changes of privatized firms are compared using both absolute and relative change methods. The absolute change in performance (ACP) for each firm is calculated as follows:

$ACP=P_{i,t} - P_{i,t-1}$

Where, $P_{i, t}$ is the mean performance of post privatization period and

$P_{i, t-1}$ is the mean performance of pre privatization period.

Since absolute change as a measure of performance is problematic, calculation is made using the relative performance change method i.e. the post privatization performance relative to the pre privatization period for each firm. The post privatization performance relative to the pre privatization for each firm is calculated as follows:

$RCP = (P_{i, t} - P_{i, t-1})/ P_{i, t-1}$

In conducting the study the case study method has been used. The case study method is suitable when there is a need for an in-depth examination of single or group of elements or small number of cases. The sample size of a case study is a function of time, manageability and availability of resources. A single case study is problematic for theory generalization and more case samples are also difficult to manage. Some researchers have suggested between ten and twenty cases for a typical case study research and other recommend less based on the depth of the study (Akalu, 2002). The researcher believes that the changes in performance of the four firms will give some insight about the performance of privatized firms specifically in the chemical industry.

4.3. Data analysis and interpretation

In this section, the empirical findings of the changes in performance of the selected privatized firms using the variables indicated in the previous section are reported. In addition proxies for performance measures (ratios) are defined, formula used for computation and the result obtained for each period and the explanations and interpretations of the results are presented in order. The selection of the ratios is made on the basis of the availability of the necessary data and the relevance of the ratio.

4.3.1. Profitability changes

One of the objectives of privatization has been to make firms profitable to cover their financial expenses as well as being able to make new investments. The purpose of this section is to explore that whether this objective has been achieved for privatized case chemical firms.

There are a number of proxy ratios that serve as a profitability measure. However, three types of profitability ratios are used in this study: return on sales ROS (profit margin ratio), return on assets (ROA) and return on equity (ROE). Profit margin ratio measure the firm's ability to control expenses relative to sales, while, return on equity (ROE) and return on assets (ROA) measure the firm's ability to use its assets and equity profitably. Different alternative profitability measures are used in the study to keep the results robust irrespective of choice of measure. However, the study concentrates on the ratio of return on sales (ROS) as a principal measure of profitability, since this ratio is less affected from inflation and accounting techniques, because it is expressed as a current birr measure of flow.

As firms move from public to private ownership, their profitability should increase. Privatization typically transfers both control rights and cash flow rights to managers who then show a greater interest in profits and efficiency then did the politicians (Boyco et al. 1990). In this study profitability is measured by return on sales (ROS), Return on Assets (ROA) and Return on Equity (ROE) ratios.

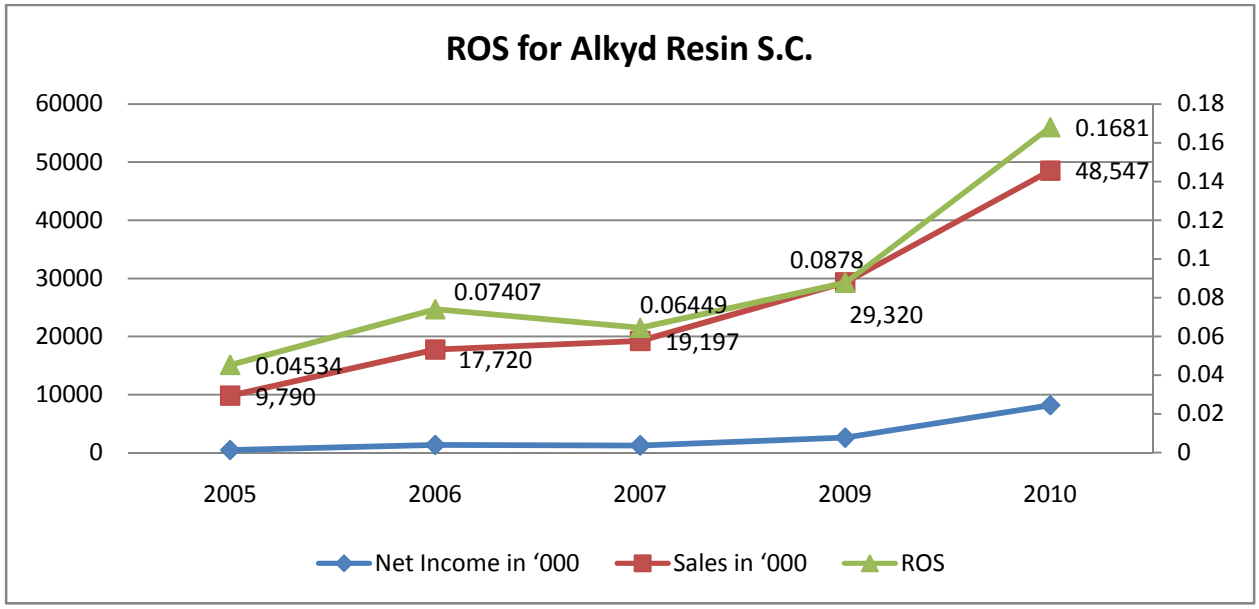
a. Return on Sales (ROS)

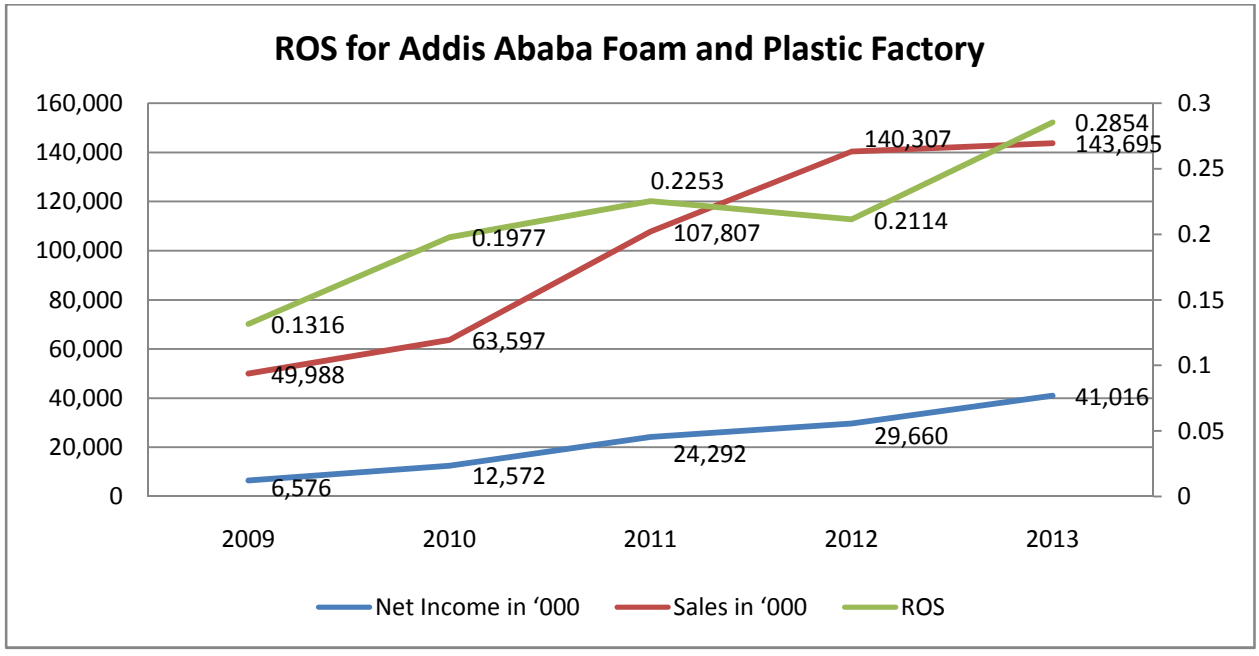
Return on sales measures the portion of each Birr of sales that trickles down through the income statement to profits. It is measured as:

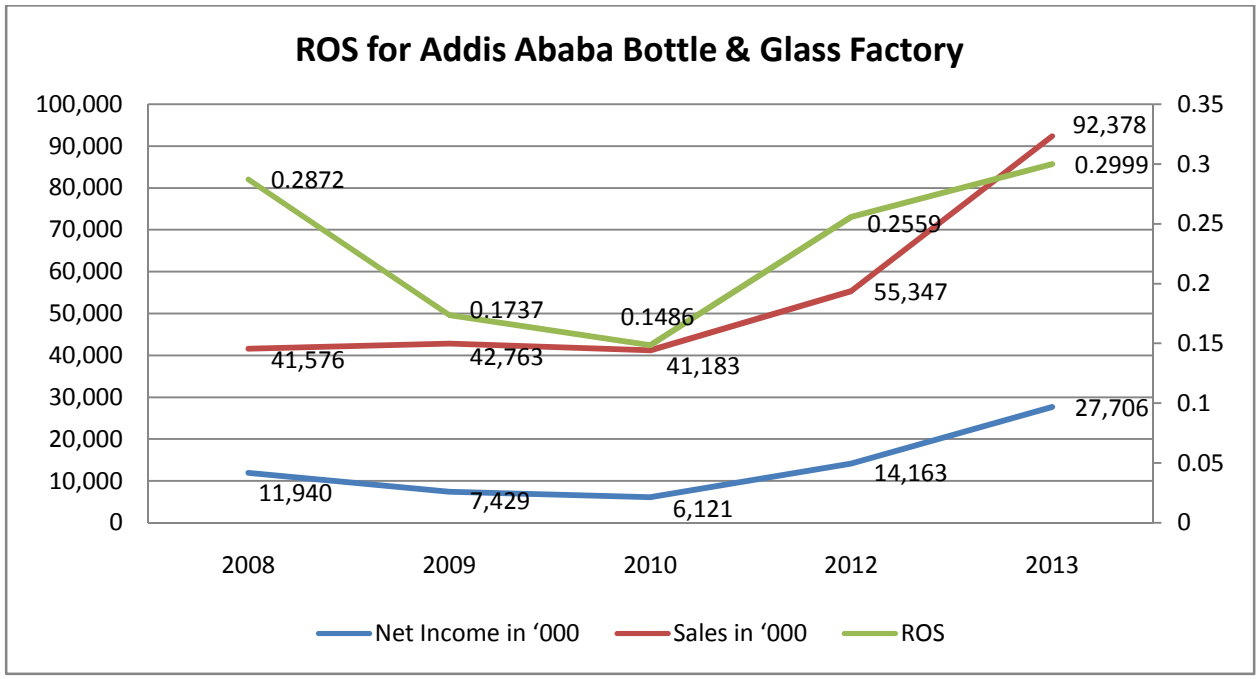
ROS= Net Income (Loss)/ Sales

The importance of this ratio is that, it helps to measure the relationship between sales and net income. If the return on sales is inadequate, the firm cannot achieve satisfactory returns for its investors.

As can be seen in the chart below the return on sales for Alkyd Resin S.C. has increased in the post privatization period. There was a decline in year 2007 just before privatization. The decline is reversed and exhibited an upward movement in the years after 2009. The sales as well as the Net Income figures has shown more than double increment. As stated by the General Manager, this is due to an open up market as well as a better efficiency in production as caused by improved production technique and use of better production tools.


ROS for Alkyd Resin S.C.
60000
50000
40000
30000
20000
10000
0
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2005
2006
2007
2009
2010
0.04534
0.07407
0.06449
0.0878
0.1681
9,790
17,720
19,197
29,320
48,547
Net Income in '000
Sales in '000
ROS


ROS for Addis Ababa Foam and Plastic Factory
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
0.3
0.25
0.2
0.15
0.1
0.05
0
2009
2010
2011
2012
2013
0.1316
0.1977
0.2253
0.2114
0.2854
49,988
63,597
107,807
140,307
143,695
6,576
12,572
24,292
29,660
41,016
Net Income in '000
Sales in '000
ROS


ROS for Addis Ababa Bottle & Glass Factory
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2008
2009
2010
2012
2013
0.2872
0.1737
0.1486
0.2559
0.2999
41,576
42,763
41,183
55,347
92,378
11,940
7,429
6,121
14,163
27,706
Net Income in '000
Sales in '000
ROS

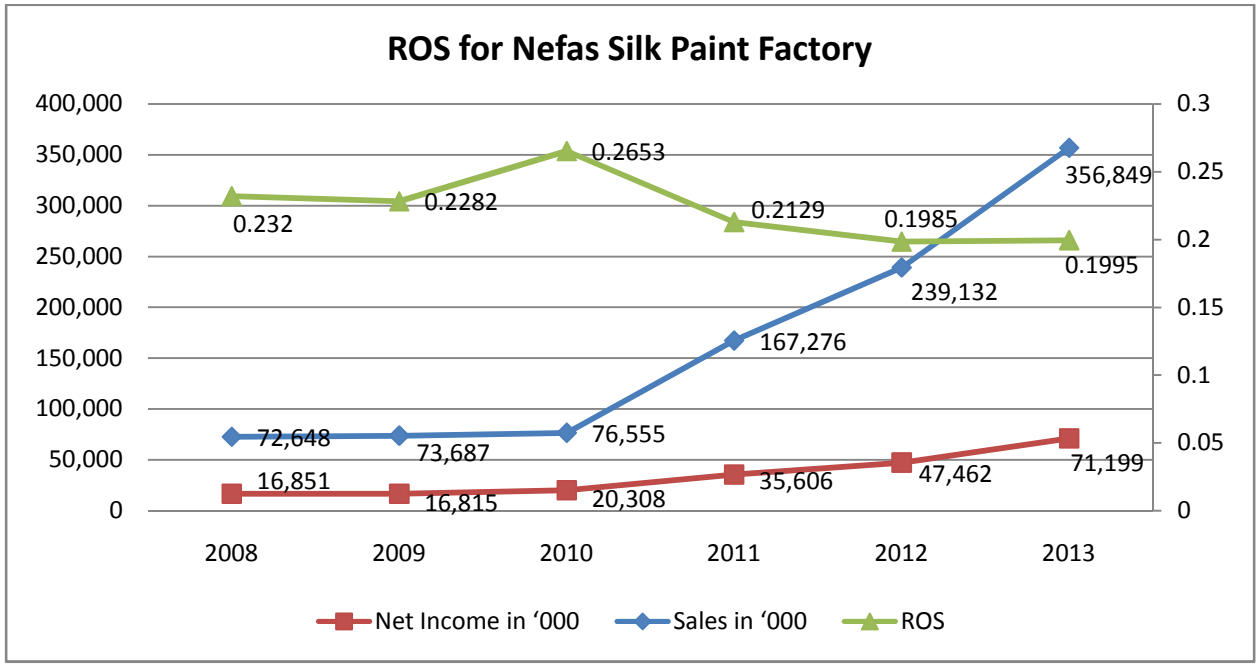
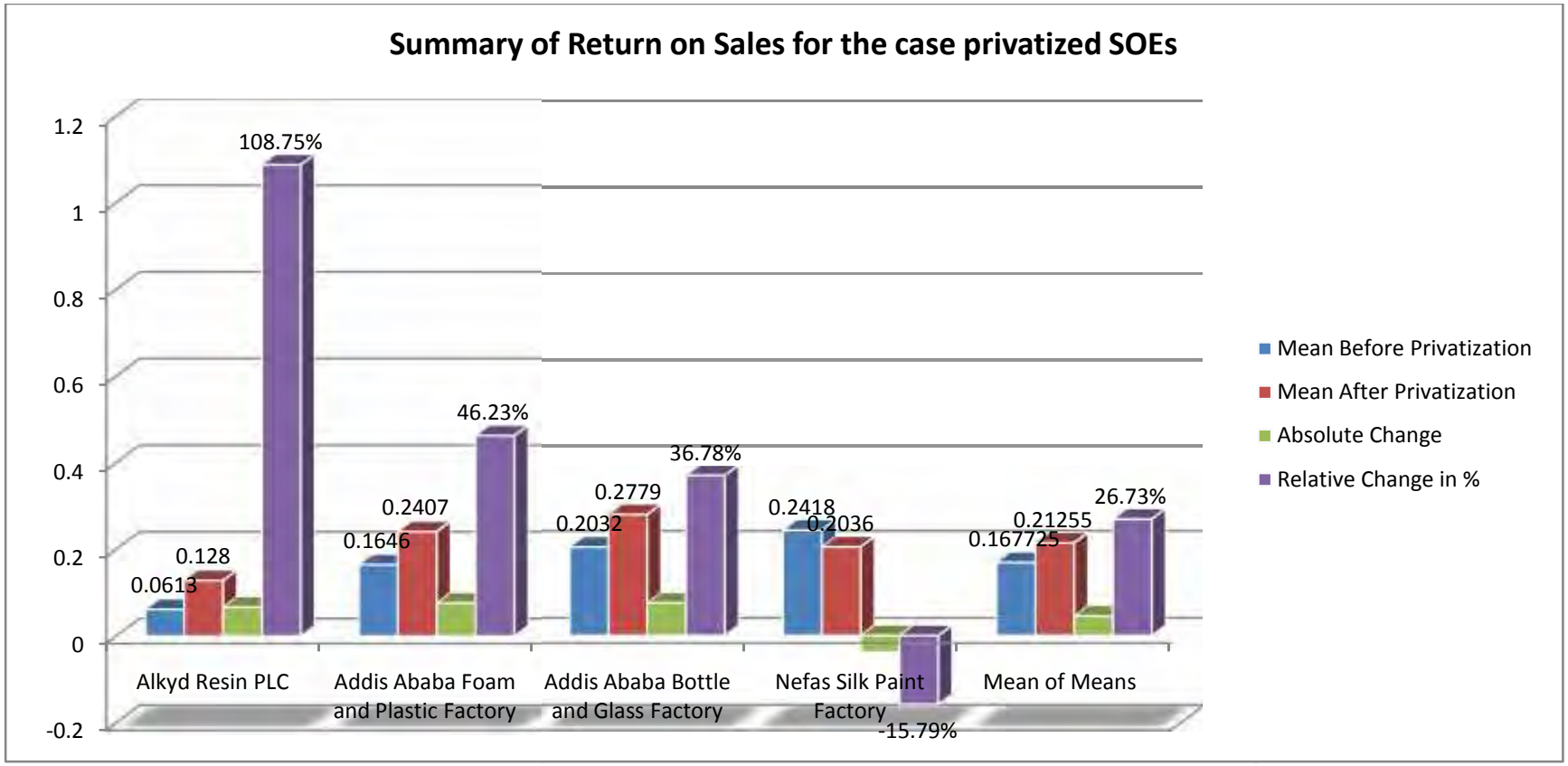

ROS for Nefas Silk Paint Factory
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
0.3
0.25
0.2
0.15
0.1
0.05
0
2008
2009
2010
2011
2012
2013
0.232
0.2282
0.2653
0.2129
0.1985
0.1995
72,648
73,687
76,555
167,276
239,132
356,849
16,851
16,815
20,308
35,606
47,462
71,199
Net Income in '000
Sales in '000
ROS

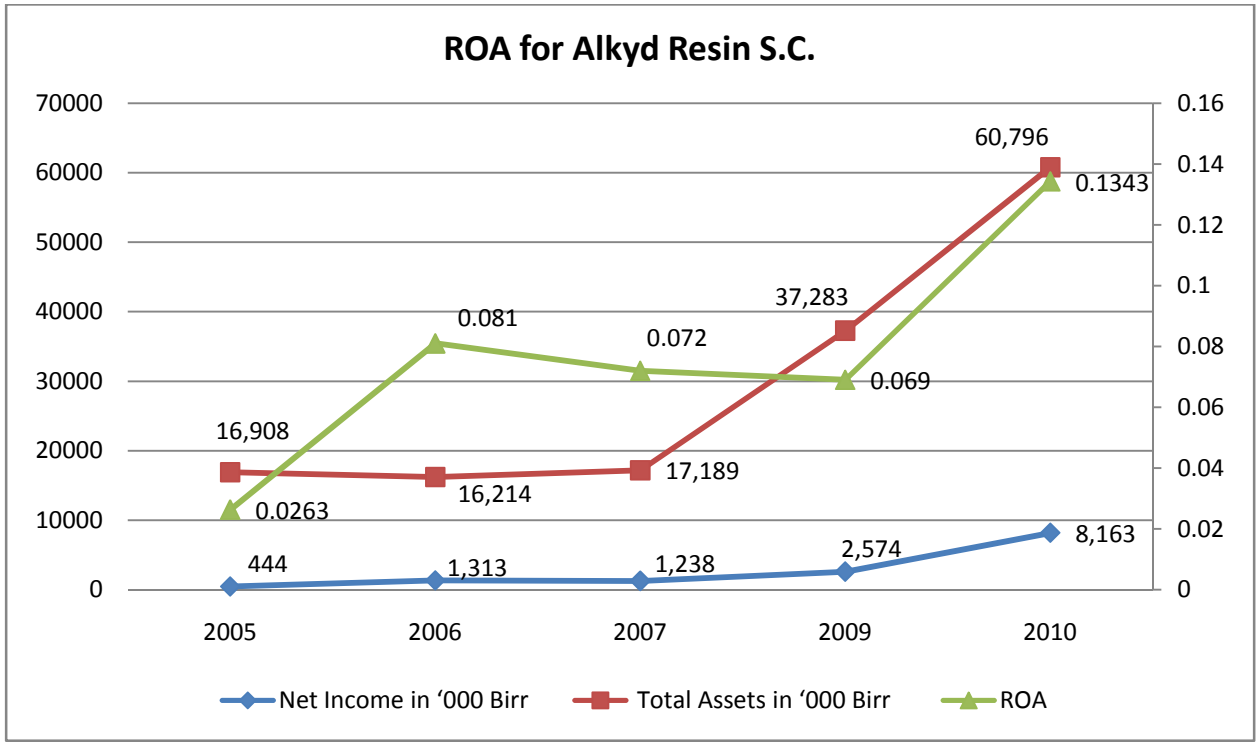
Table 3: Summary of ROS for the case Privatized SOEs

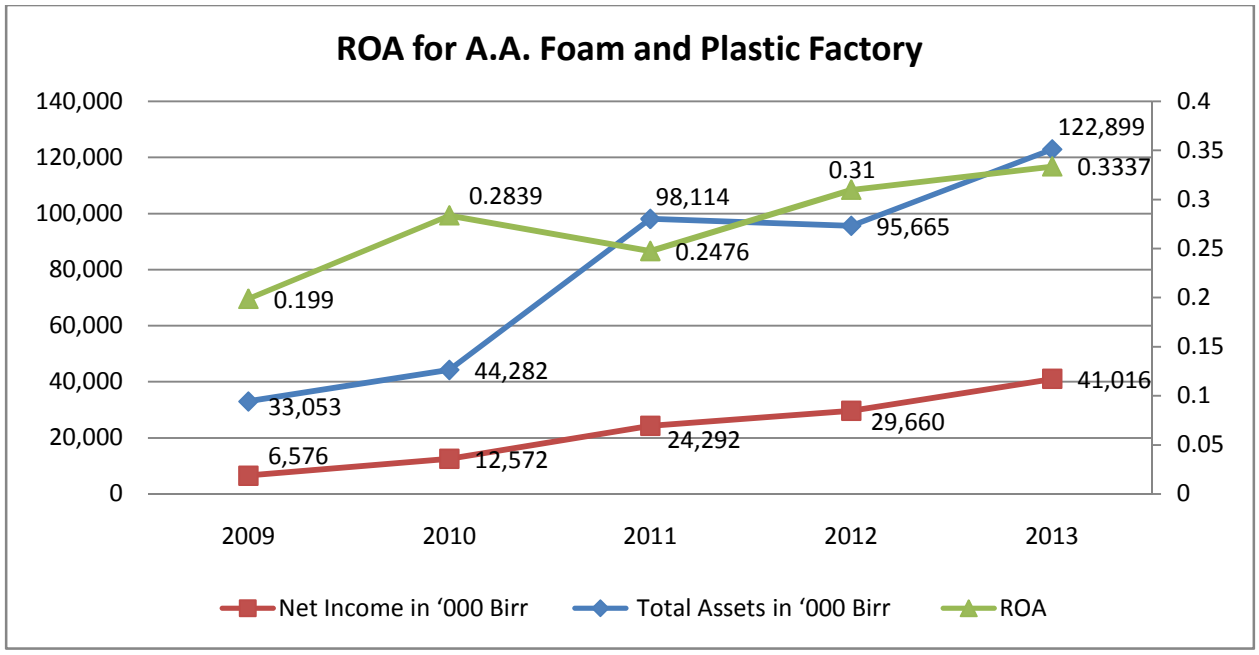
Firm	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change in %
Alkyd Resin PLC	0.0613	0.1280	0.0667	108.75%
Addis Ababa Foam and Plastic Factory	0.1646	0.2407	0.0761	46.23%
Addis Ababa Bottle and Glass Factory	0.2032	0.2779	0.0747	36.78%
Nefas Silk Paint Factory	0.2418	0.2036	-0.0382	-15.79%
Mean of Means	0.167725	0.21255	0.044825	26.73%

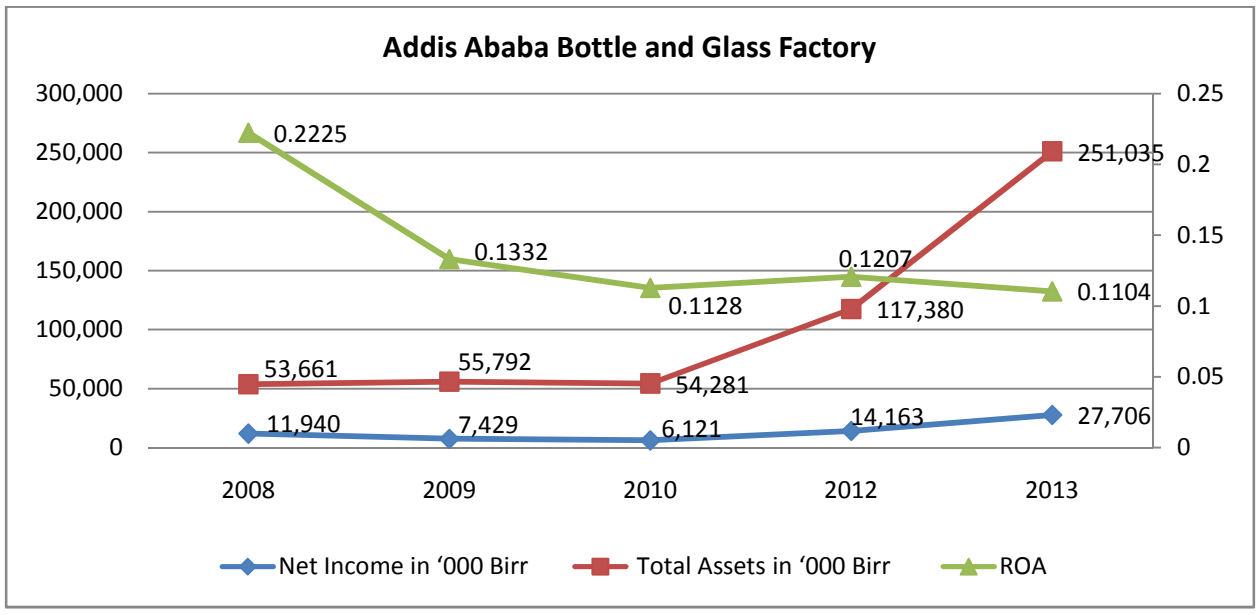
Source: Annex 1

Figure 5: Summary of ROS for the case Privatized SOEs




ROA for Alkyd Resin S.C.
70000
60000
50000
40000
30000
20000
10000
0
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
16,908
16,214
17,189
37,283
60,796
0.0263
0.081
0.072
0.069
0.1343
444
1,313
1,238
2,574
8,163
2005
2006
2007
2009
2010
Net Income in '000 Birr
Total Assets in '000 Birr
ROA


ROA for A.A. Foam and Plastic Factory
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2009
2010
2011
2012
2013
0.199
0.2839
0.2476
0.31
0.3337
33,053
44,282
98,114
95,665
122,899
6,576
12,572
24,292
29,660
41,016
Net Income in '000 Birr
Total Assets in '000 Birr
ROA


Addis Ababa Bottle and Glass Factory
300,000
250,000
200,000
150,000
100,000
50,000
0
0.25
0.2
0.15
0.1
0.05
0
2008
2009
2010
2012
2013
0.2225
0.1332
0.1128
0.1207
0.1104
53,661
55,792
54,281
117,380
251,035
11,940
7,429
6,121
14,163
27,706
Net Income in '000 Birr
Total Assets in '000 Birr
ROA

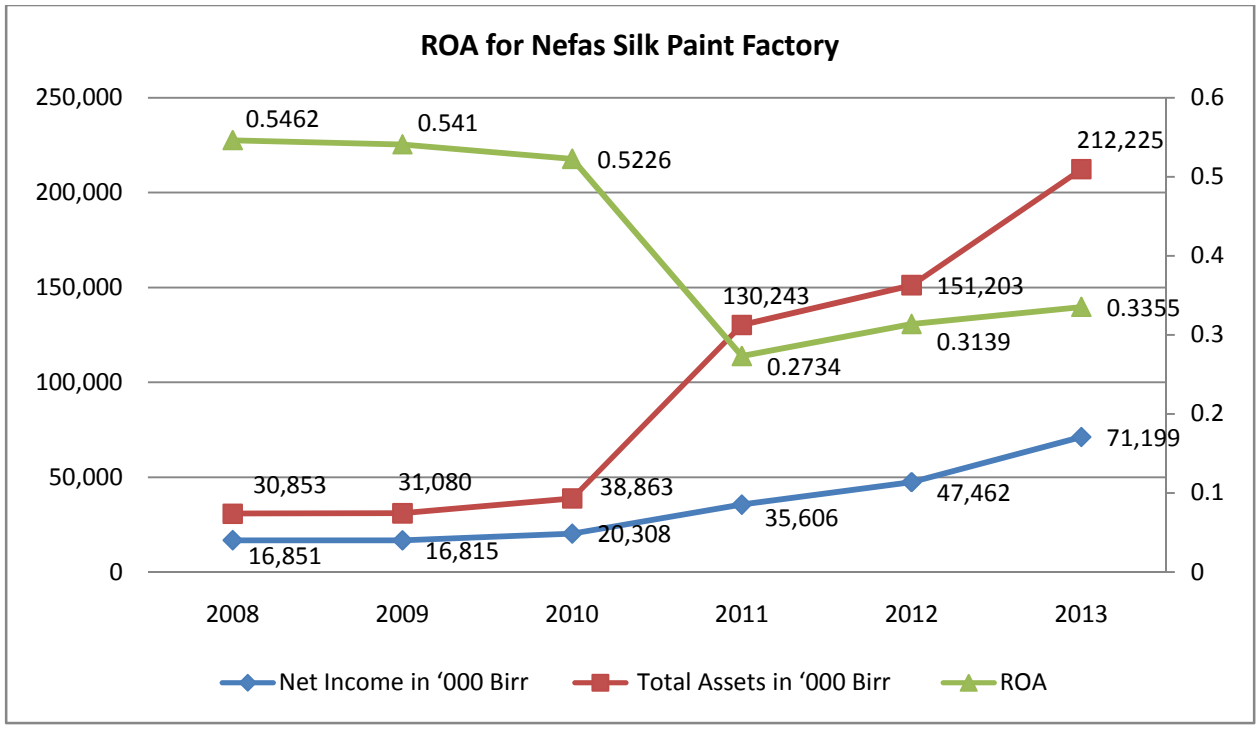
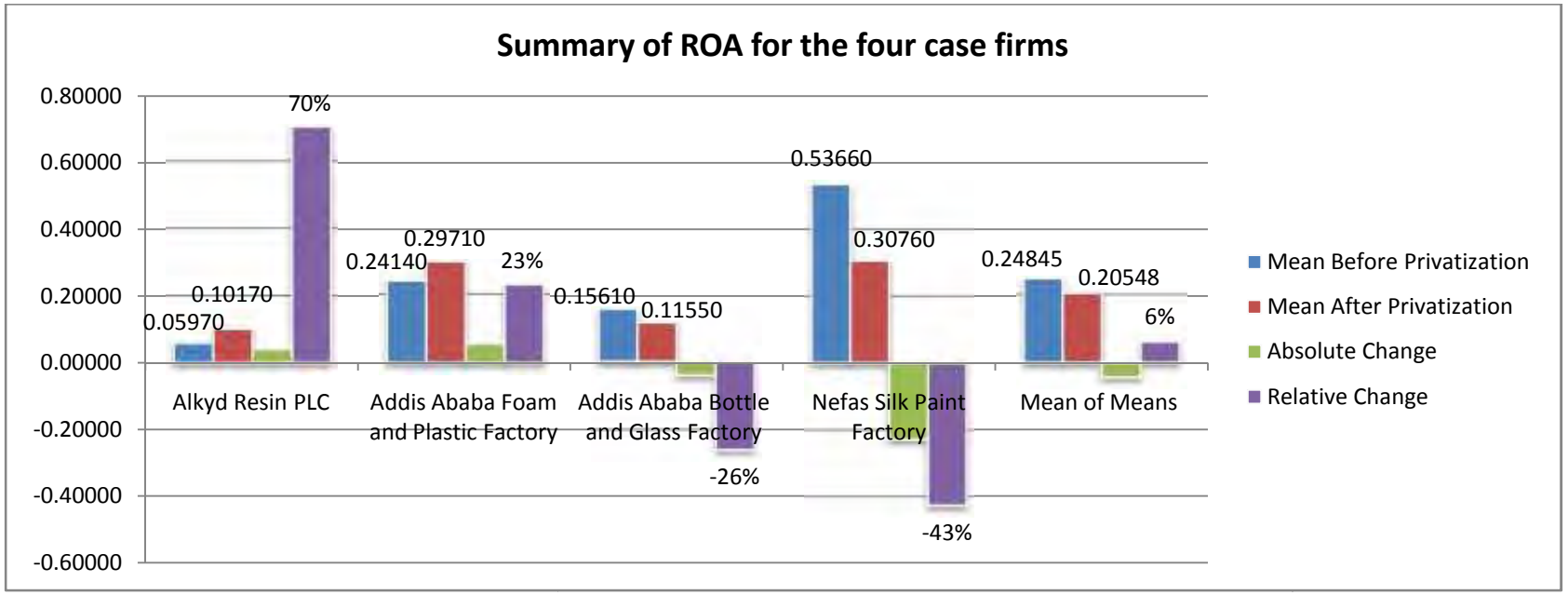

ROA for Nefas Silk Paint Factory
250,000
200,000
150,000
100,000
50,000
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.5462
0.541
0.5226
0.2734
0.3139
0.3355
212,225
151,203
130,243
38,863
31,080
30,853
71,199
47,462
35,606
20,308
16,815
16,851
2008
2009
2010
2011
2012
2013
Net Income in '000 Birr
Total Assets in '000 Birr
ROA

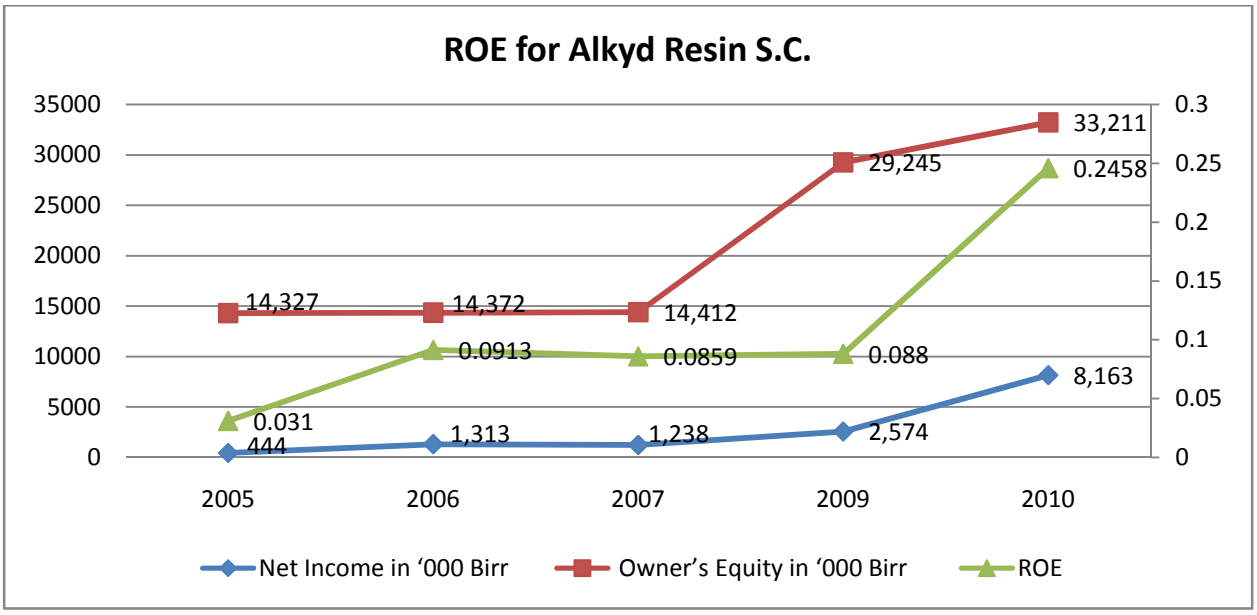
Table 4: Summary of ROA for the case privatized SOEs

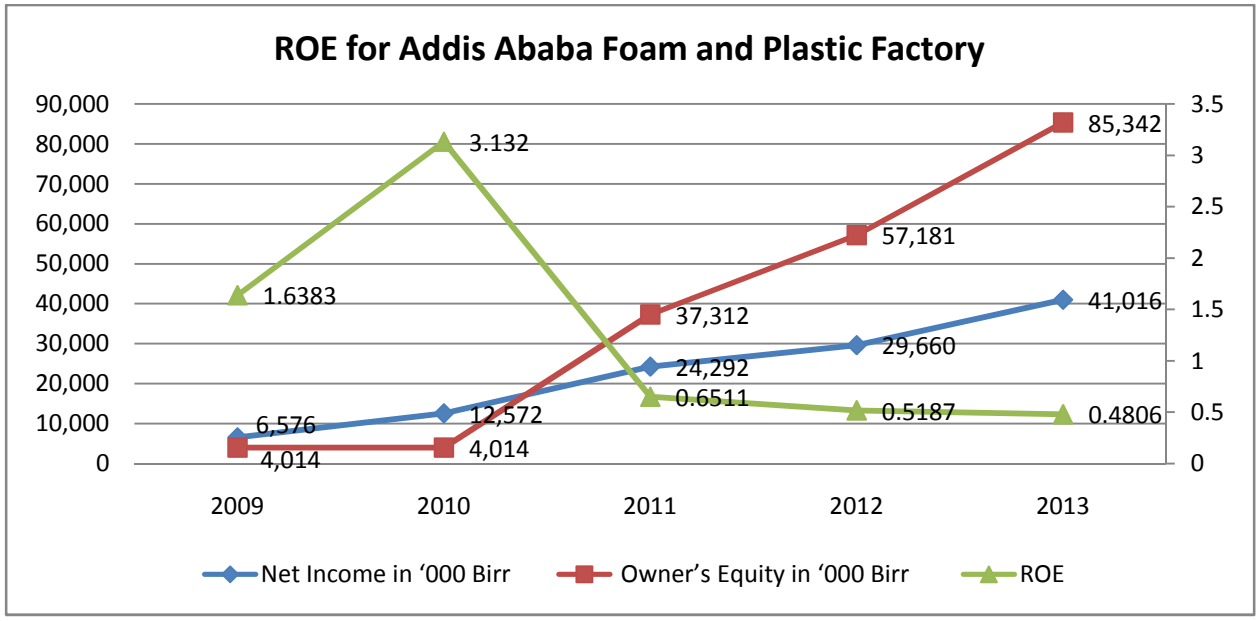
Firm	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change
Alkyd Resin PLC	0.05970	0.10170	0.04200	70%
Addis Ababa Foam and Plastic Factory	0.24140	0.29710	0.05570	23%
Addis Ababa Bottle and Glass Factory	0.15610	0.11550	-0.04060	-26%
Nefas Silk Paint Factory	0.53660	0.30760	-0.22900	-43%
Mean of Means	0.24845	0.20548	-0.04298	6%

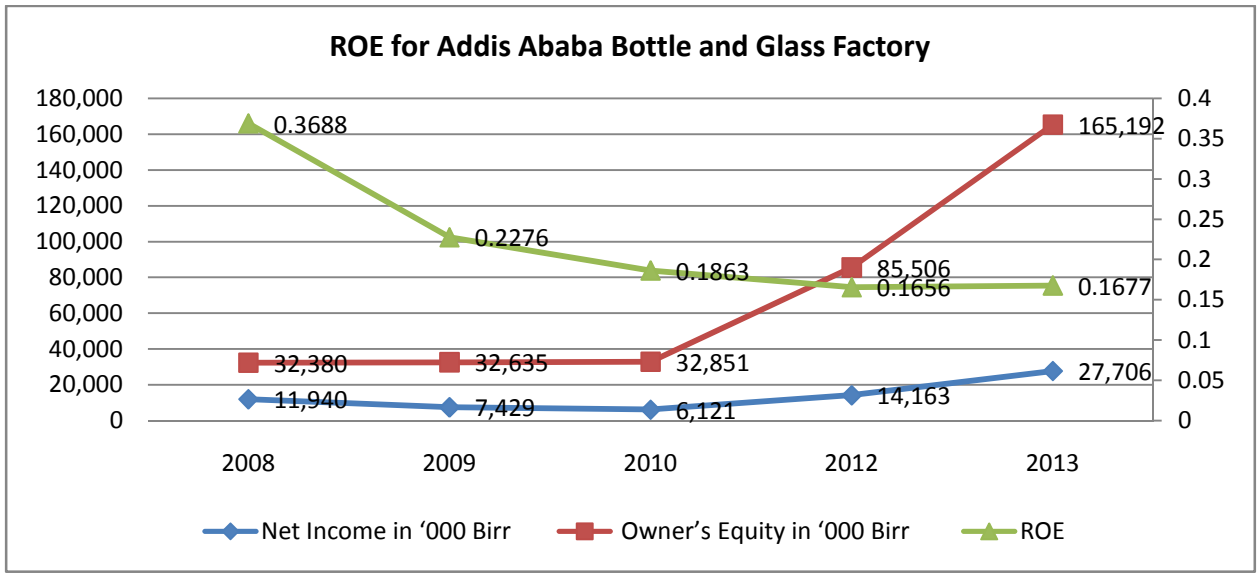
Source : Annex 2

Figure 10: Summary of ROA for the case SOEs




ROE for Alkyd Resin S.C.
35000
30000
25000
20000
15000
10000
5000
0
0.3
0.25
0.2
0.15
0.1
0.05
0
14,327
14,372
14,412
29,245
33,211
0.031
0.0913
0.0859
0.088
0.2458
444
1,313
1,238
2,574
8,163
2005
2006
2007
2009
2010
Net Income in '000 Birr
Owner's Equity in '000 Birr
ROE


ROE for Addis Ababa Foam and Plastic Factory
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
3.5
3
2.5
2
1.5
1
0.5
0
2009
2010
2011
2012
2013
6,576
12,572
24,292
29,660
41,016
4,014
4,014
37,312
57,181
85,342
1.6383
3.132
0.6511
0.5187
0.4806
Net Income in '000 Birr
Owner's Equity in '000 Birr
ROE


ROE for Addis Ababa Bottle and Glass Factory
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.3688
0.2276
0.1863
0.1656
0.1677
165,192
85,506
32,380
32,635
32,851
27,706
11,940
7,429
6,121
14,163
2008
2009
2010
2012
2013
Net Income in '000 Birr
Owner's Equity in '000 Birr
ROE

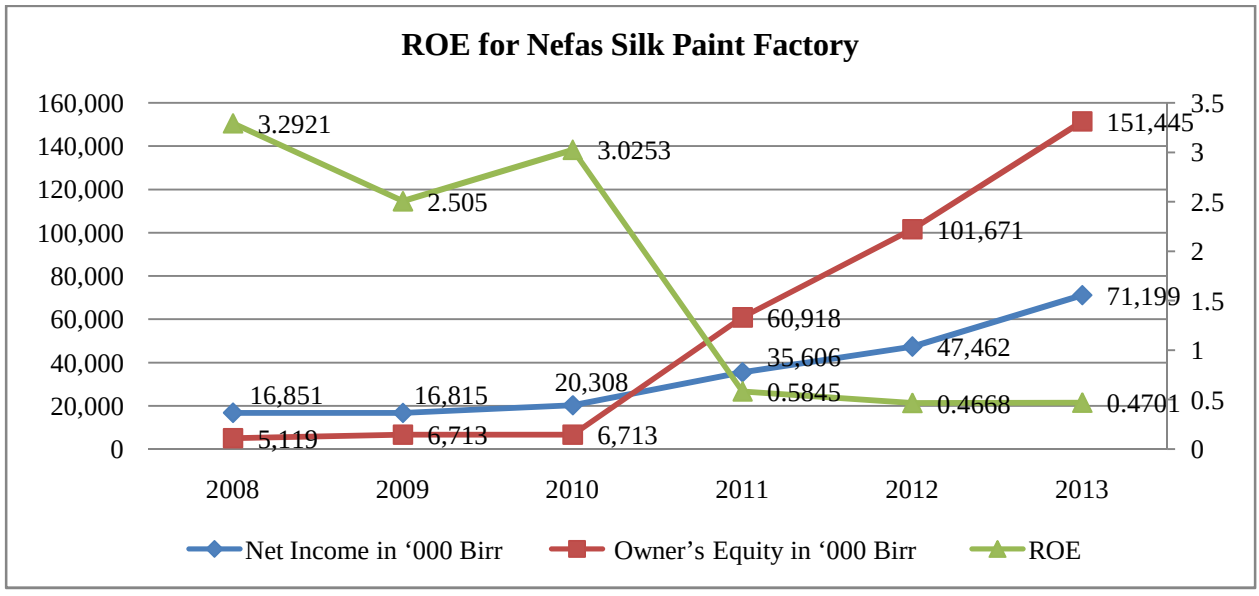
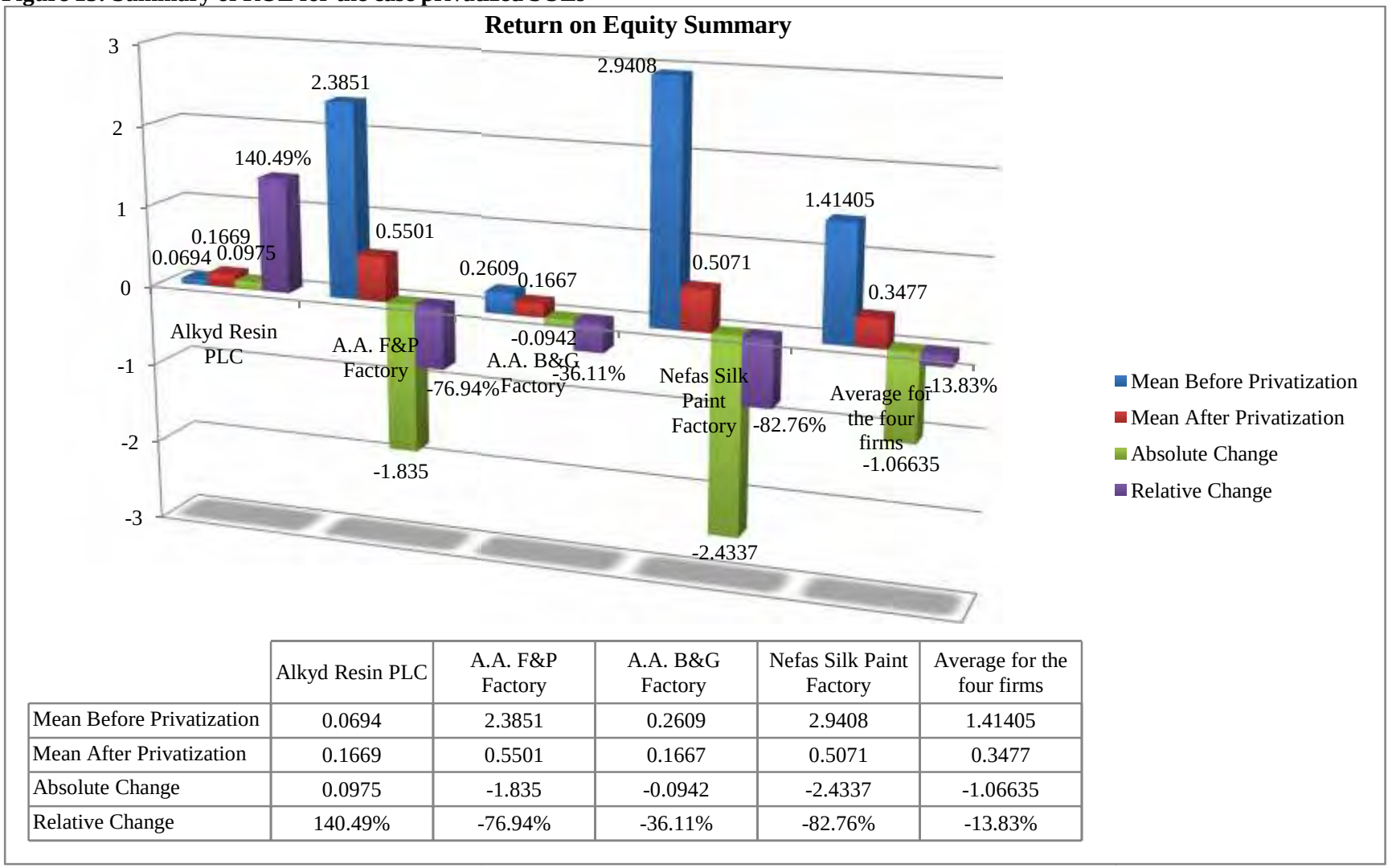

ROE for Nefas Silk Paint Factory
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
3.5
3
2.5
2
1.5
1
0.5
0
3.2921
2.505
3.0253
0.5845
0.4668
0.4701
151,445
101,671
60,918
71,199
47,462
35,606
20,308
16,851
16,815
5,119
6,713
6,713
2008
2009
2010
2011
2012
2013
Net Income in '000 Birr
Owner's Equity in '000 Birr
ROE

Figure 15: Summary of ROE for the case privatized SOEs



	Alkyd Resin PLC	A.A. F&P Factory	A.A. B&G Factory	Nefas Silk Paint Factory	Average for the four firms
Mean Before Privatization	0.0694	2.3851	0.2609	2.9408	1.41405
Mean After Privatization	0.1669	0.5501	0.1667	0.5071	0.3477
Absolute Change	0.0975	-1.835	-0.0942	-2.4337	-1.06635
Relative Change	140.49%	-76.94%	-36.11%	-82.76%	-13.83%

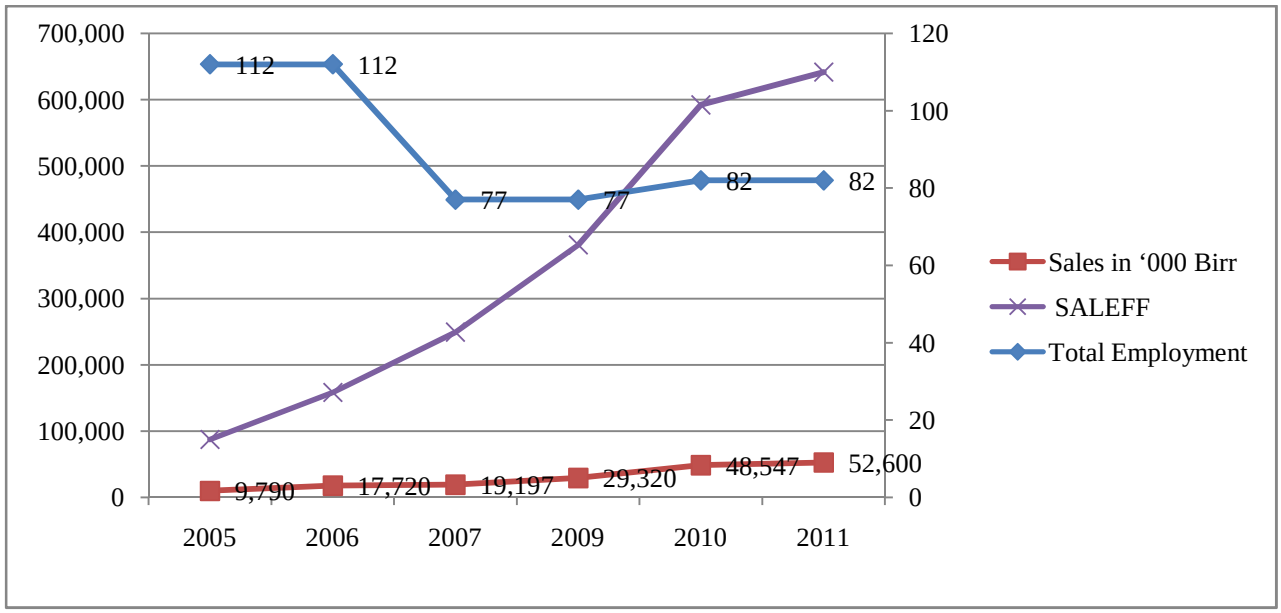
ROE has decreased in the entire firms except for Alkyd Resin as compared to the pre privatization period as measured by using mean ROE of the two periods. The decrease is mainly due to the rate of increase in net income is lesser than that of the rate of increase in equity.

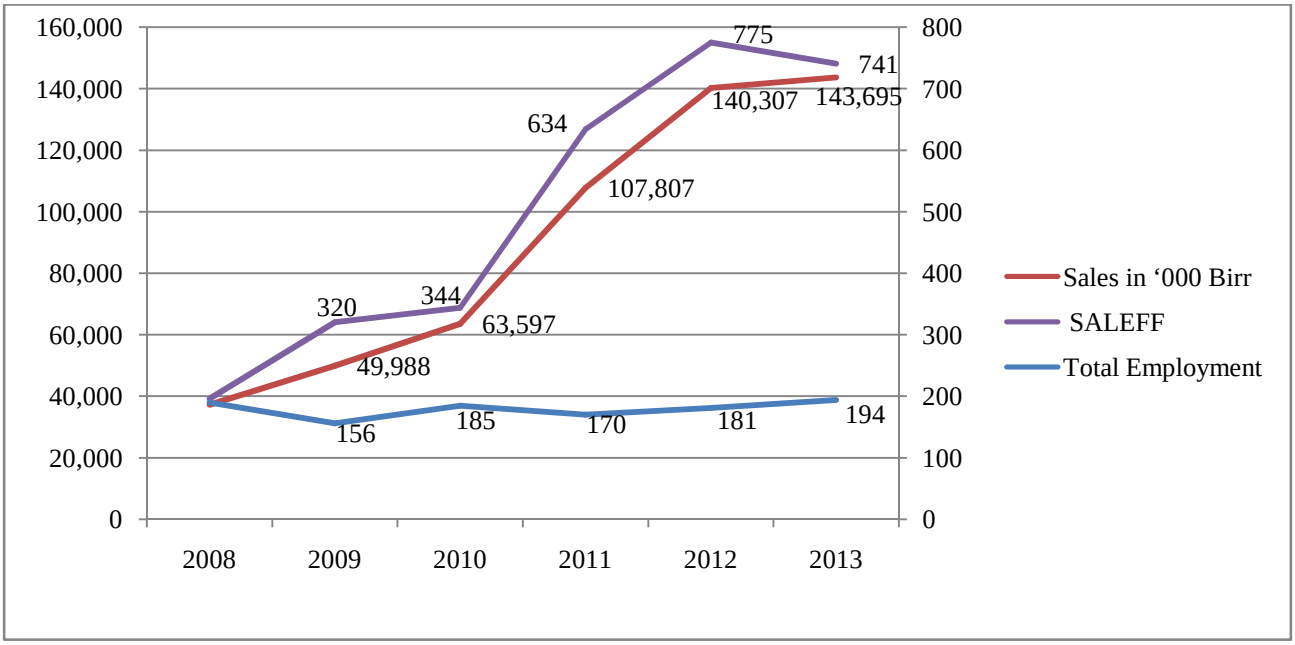
Unlike that of most governments expectations profitability does not fully show increase after privatization in the above case firms (Ethiopia) according to the above measurement tools (ratios). As per the profitability indicator ratios Nefas Silk Paint has shown a decline in all the ratios. While Alkyd Resin has exhibited an increase in all the profitability indicator ratios. Addis Ababa Bottle and Glass Factory has shown a decline in ROA and ROE. In the remaining case firm, Addis Ababa Foam and Plastic Factory, ROS and ROE has moved upwards. It is therefore difficult to say that the profitability performance of the privatized firms is better in the post privatization period. However, when we see the case firms average performance, except that of ROE, the average results indicate a better strong profitability performance of the privatized firms, which is similar to the one observed for developed countries by Megginson et al. (1994) and for the sample of firms operating, in upper-middle-income-countries covered in Behave and Cosset (1998).

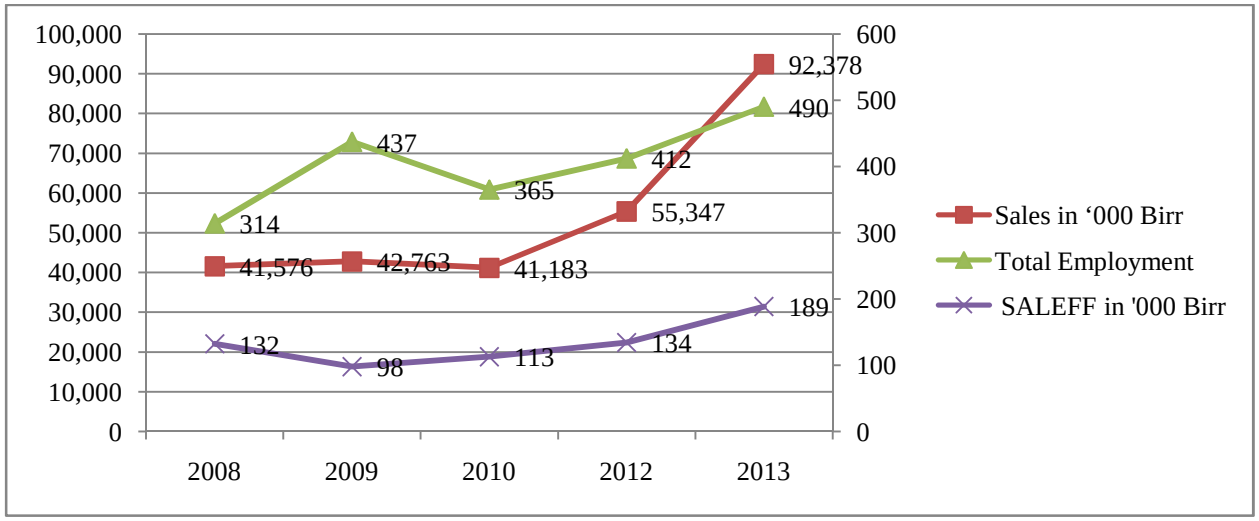
4.3.2. Changes in operating efficiency

By changing SOEs to Private Firms and making the market environment competitive, governments clearly hope that the privatized firms will employ their human, financial and technological resources more efficiently. The shareholders and employees in a private company receive most of the benefits of efficiency improvements, and equally suffer if efficiency deteriorates. In removing the non economic objectives (objectives to develop backward areas and/or operating at an economically inefficient level for mere reason to allow more employment), governments explicitly state that the trade off they expect is increased operating and financial efficiency. (Megginson et al. 1994)

Operating efficiency of firms is measured by their ability to produce more output with existing resources and/or achieving the same level of output with reduced resource levels. The output of the firms in this paper are the amount of sales and net income the firms reported and resources measured through the number of workers and fixed facilities they employed in their operation.


700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
120
100
80
60
40
20
0
112
112
77
77
82
82
9,790
17,720
19,197
29,320
48,547
52,600
2005
2006
2007
2009
2010
2011
Sales in '000 Birr
SALEFF
Total Employment


160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
800
700
600
500
400
300
200
100
0
2008
2009
2010
2011
2012
2013
775
741
634
320
344
140,307
143,695
107,807
63,597
49,988
156
185
170
181
194
Sales in '000 Birr
SALEFF
Total Employment


100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
600
500
400
300
200
100
0
2008
2009
2010
2012
2013
92,378
490
437
412
365
55,347
314
41,576
42,763
41,183
189
132
98
113
134
Sales in '000 Birr
Total Employment
SALEFF in '000 Birr

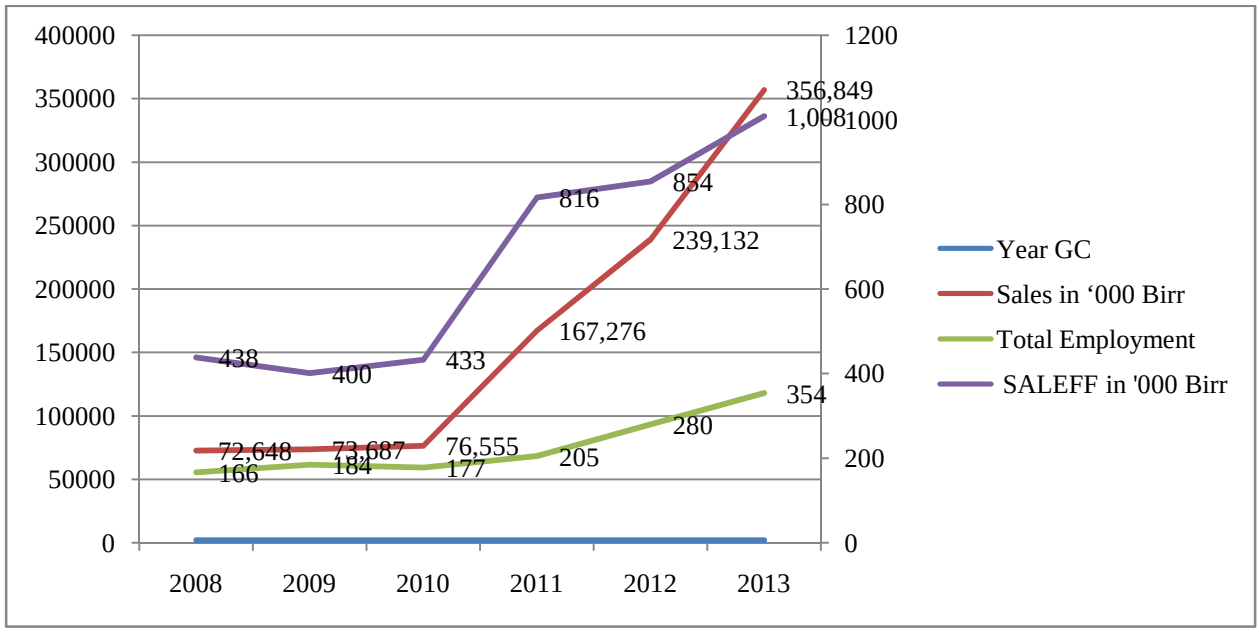
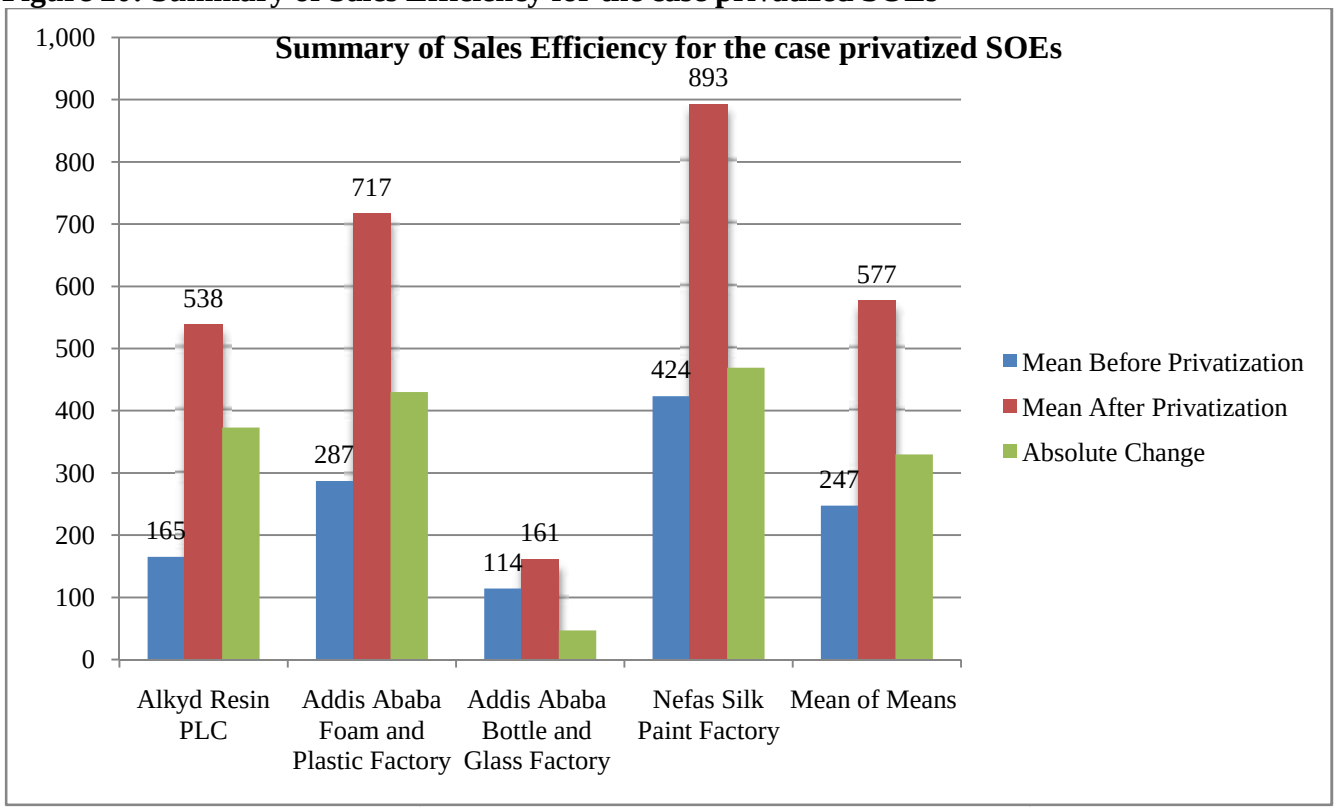

400000
350000
300000
250000
200000
150000
100000
50000
0
1200
1000
800
600
400
200
0
2008
2009
2010
2011
2012
2013
356,849
1,008
816
854
239,132
167,276
438
400
433
354
280
72,648
73,687
76,555
205
166
184
177
Year GC
Sales in '000 Birr
Total Employment
SALEFF in '000 Birr

Table 5: Summary for Sales Efficiency for all the case privatized SOEs

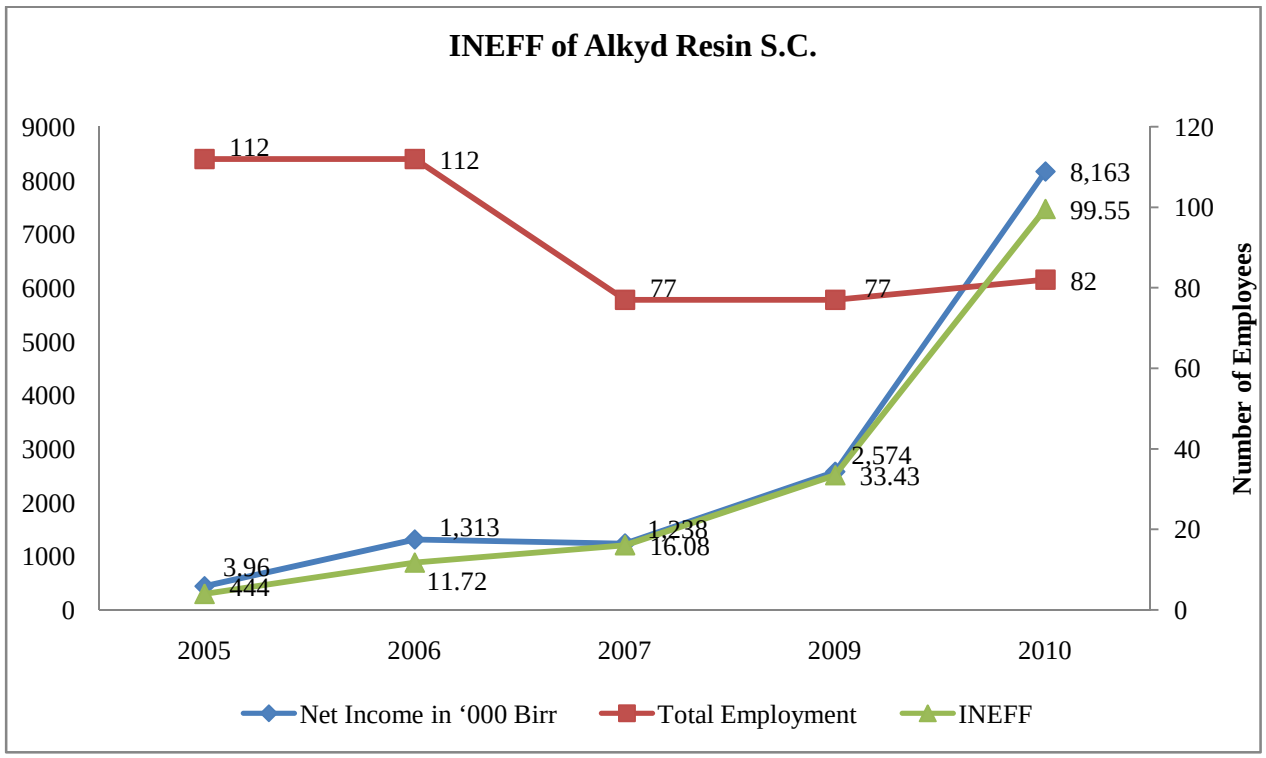
Firm	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change
Alkyd Resin PLC	164,979	538,095	373,116	226%
Addis Ababa Foam and Plastic Factory	286,827	716,677	429,850	150%
Addis Ababa Bottle and Glass Factory	114,364	161,432	47,068	41%
Nefas Silk Paint Factory	423,542	892,691	469,149	111%
Mean of Means	247,428	577,224	329,795	133%

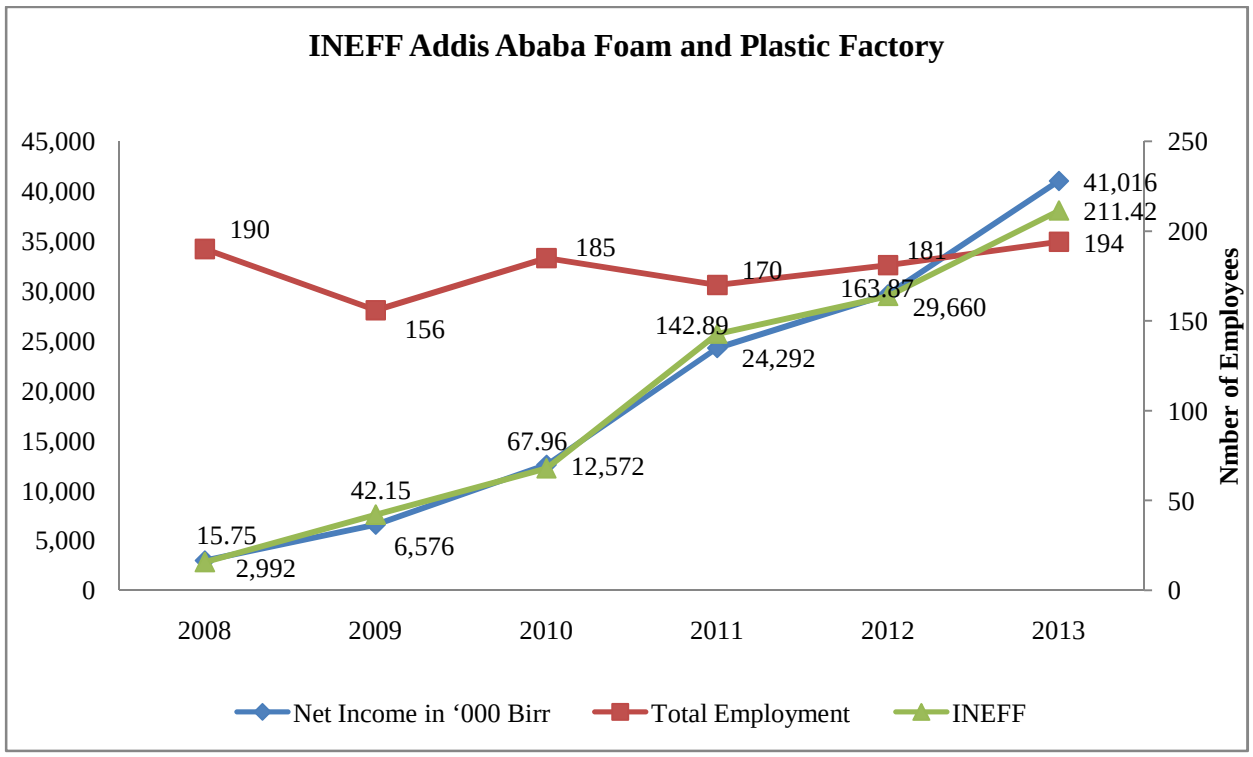
Source: Audited Financial statements of the case privatized firms

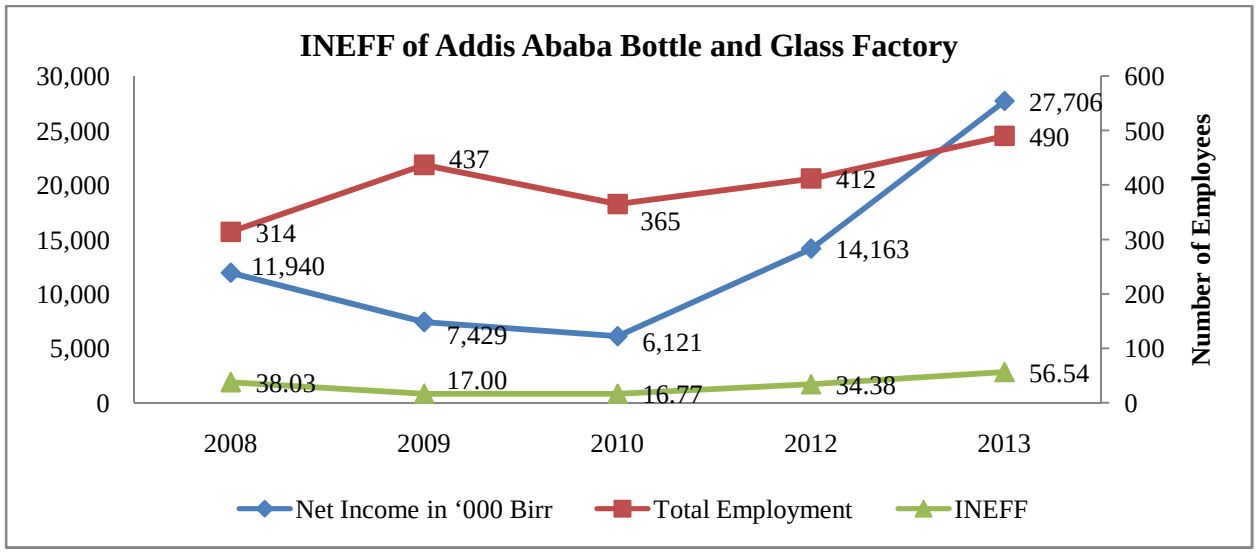
Figure 20: Summary of Sales Efficiency for the case privatized SOEs

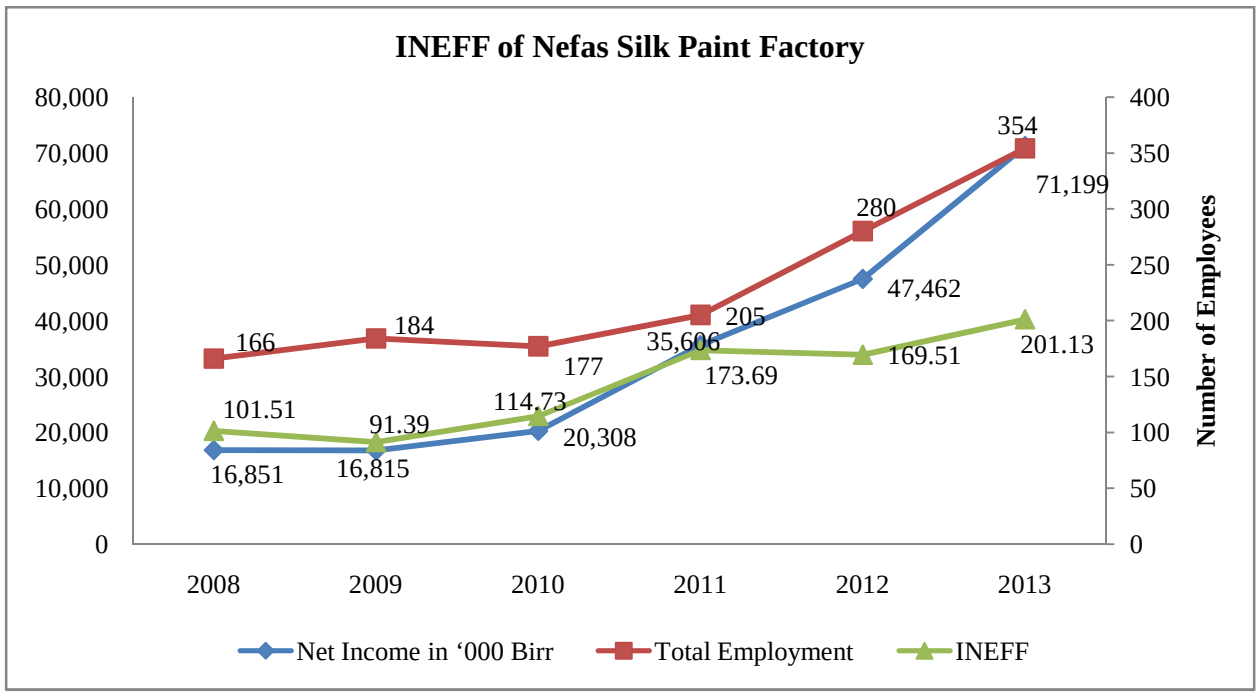


The summary results in the above table as well as in the chart show increase in sales efficiency in all the four privatized firms with a mean increase of 133 % . The major reasons which can be explained for the increase in sales efficiency are the significant increase in the amount of sales in all the four firms due to increase in product, better technology usage, incentives and change in working system. Despite a slight decline in employment level of Alkyd Resin S.C. the

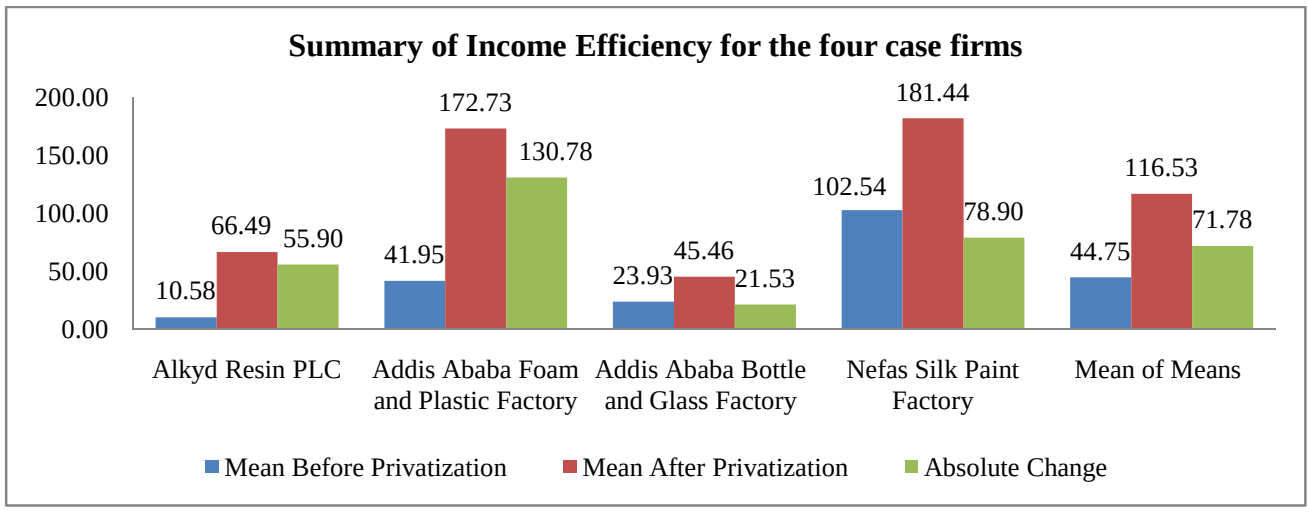

INEFF of Alkyd Resin S.C.
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
120
100
80
60
40
20
0
Number of Employees
112
112
77
77
82
8,163
99.55
2,574
33.43
1,313
1,238
16.08
3.96
444
11.72
2005
2006
2007
2009
2010
Net Income in '000 Birr
Total Employment
INEFF


INEFF Addis Ababa Foam and Plastic Factory
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
250
200
150
100
50
0
Nmber of Employees
2008
2009
2010
2011
2012
2013
190
156
185
170
181
194
41,016
211.42
163.87
29,660
142.89
24,292
67.96
12,572
42.15
6,576
15.75
2,992
Net Income in '000 Birr
Total Employment
INEFF


INEFF of Addis Ababa Bottle and Glass Factory
30,000
25,000
20,000
15,000
10,000
5,000
0
600
500
400
300
200
100
0
Number of Employees
2008
2009
2010
2012
2013
27,706
490
437
412
365
314
14,163
11,940
7,429
6,121
56.54
38.03
17.00
16.77
34.38
Net Income in '000 Birr
Total Employment
INEFF



Firms	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change
Alkyd Resin PLC	10.58	66.49	55.90	528.02%
Addis Ababa Foam and Plastic Factory	41.95	172.72	130.77	311.72%
Addis Ababa Bottle and Glass Factory	23.93	45.46	21.52	89.96%
Nefas Silk Paint Factory	102.54	181.44	78.89	76.94%
Mean of Means	44.75	116.53	71.77	160.38%


Summary of Income Efficiency for the four case firms
200.00
150.00
100.00
50.00
0.00
10.58
66.49
55.90
41.95
172.73
130.78
23.93
45.46
21.53
102.54
181.44
78.90
44.75
116.53
71.78
Alkyd Resin PLC
Addis Ababa Foam and Plastic Factory
Addis Ababa Bottle and Glass Factory
Nefas Silk Paint Factory
Mean of Means
Mean Before Privatization
Mean After Privatization
Absolute Change

As we can see in the table below, the average total asset turnover exhibits a decline in all case firms in post privatization period. This is mainly due to the influence of fixed asset dominance in the total asset. In an interview conducted with all the case firms, it is learnt that investments are made on fixed assets in all the case firms. In a computation made by the researcher to see the effect of fixed assets i.e. excluding them from the total asset the overall pattern of the turnover changes and it shows high in the post privatization period.

Table 7: Average Total Asset Turnover Ratio for the case privatized SOEs

Firm	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change
Alkyd Resin PLC	0.9296	0.7925	-0.1371	-14.75%
A. Ababa Foam and Plastic Factory	1.4743	1.2449	-0.2294	-15.56%
Addis Ababa Bottle and Glass Factory	0.7667	0.4198	-0.3469	-45.25%
Nefas Silk Paint Factory	2.2318	1.5158	-0.7160	-32.08%
Mean of Means	1.3506	0.9932	-0.3574	-26.46%

Source: Audited Financial Statements of case privatized firms - own computation - Annex 6

The Total Asset Utilization Ratio SATA has shown a decline in all the privatized firms as compared to pre privatization period with an average decline (decrease) of 26% as indicated in the above table. As learnt from interviews held with the management of the firms, the reasons for this is that the increase in value of assets as a result of acquisition of new fixed assets to upgrade and enhance the capacity of firms; and the un-proportionate increase in the amount of sales as mentioned previously.

d. Fixed Asset Turnover (SAFA)

SAFA measures how effectively the company utilizes its fixed asset and generates sales. Fixed asset utilization or fixed asset turnover is computed as follows: **SAFA = Sales/Total Fixed Assets**

Table 8: Average Fixed Asset Turnover Ratio for the case privatized SOEs

Firm	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change
Alkyd Resin PLC	3.58	2.72	(0.87)	-24.23%
Addis Ababa Foam and Plastic Factory	3.96	12.99	9.03	227.79%
Addis Ababa Bottle and Glass Factory	2.93	2.91	(0.02)	-0.59%
Nefas Silk Paint Factory	20.93	15.77	(5.16)	-24.65%
Mean of Means	7.85	8.60	0.75	9.50%

Source: Audited Financial Statements of case privatized firms - own computation - Annex 7

According to the above table the mean fixed asset turnover of the privatized firms has decreased for the three firms. While there is an increment for Addis Ababa Foam and Plastic Factory. However, the overall mean has increased by 9.5% after privatization. This is because the increasing effect of Addis Ababa Foam and Plastic Factory has dominated the rest and resulted in increase in the overall figure. As majority of the firms show a decline , it may mean that there is inefficiency in the utilization of fixed assets in those firms. While in the case of Addis Ababa Foam and Plastic Factory, as explained by the manager the main reasons for the increase in fixed asset turnover is that the firm is better using its acquired fixed assets which replaced the old assets and the revaluation of the existing assets during the process of privatization has contributed positively for the sales of the factory and has resulted in the increase of the amount of sales.

The efficiency of the privatized firms as measured by SALEFF and INEFF has shown an upward result as compared to pre privatization period. While the efficiency measures in terms of total asset turnover and fixed asset turnover resulted a decline. Therefore, one can not conclude the results obtained from the analysis of change in operating efficiency of privatized firms are in favor of what the theory or hypothesis predicted based on the review of experiences of other countries. It partially fulfills and in partial it does not go with the premises.

e. Changes in output

Changes in output is computed by taking the mean output level for the pre privatization period and comparing it with the level for post privatization period. One important objective of privatization is to increase output of firms. Hence to test this proposition the mean output level for the pre and post privatization period as a proxy of number of employees is computed.

Table 9: Output per Employee in '000 birr

Firm	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change
Alkyd Resin PLC	1,540	1,874	334	22%
Addis Ababa Foam and Plastic Factory	811	1,282	471	58%
Addis Ababa Bottle and Glass Factory	6,427	5,751	-676	-11%
Nefas Silk Paint Factory	4,164	7,238	3,074	74%
Mean of Means	3,235	4036	801	25%

Source: Audited Financial Statements of case privatized SOEs - own computation

Mean of output has moved upward by 25% in post privatization period. The reason for the upward movement as explained by the officials of the respective privatized firms is the focus of the firms on expansion and rehabilitation, so that investments are made to improve the production capacity and resulted in increment of production with the help of better machineries and technologies. Results documented here for output change is in favor to what is hypothesized and predicted based on a review of literature and of other countries' experiences.

f. Employment Change

Prior to privatization most state owned enterprises tend to be overstaffed. Thus, governments expect large decline or layoff in employment levels following privatization process.

Before discussing the results of this variable, it is worth mentioning that there is neither a theoretical nor empirical consensus with regard to the impact of privatization on the level of employment. On the one hand, privatization might lead to an increase in the level of employment since privatized firms probably would target growth and expand their investment spending; they in turn would be able to produce more job openings. On the other hand, it is confirmed that most SOEs tend to be overstaffed for many social reasons; hence extensive layoffs would be expected because of the new management style, since social aspects would not be considered in favor of business objectives.

Table 10: Employment change in number

Firm	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change
Alkyd Resin PLC	112	79	-33	-29%
Addis Ababa Foam and Plastic Factory	169	243	74	44%
Addis Ababa Bottle and Glass Factory	373	420	47	13%
Nefas Silk Paint Factory	169	176	7	4%
Mean of Means	206	230	24	12%

Source: Internal report compiled by PPESA

We test for this variable by computing the average level of employment prior to and after privatization. As the table indicates except for Alkyd Resin employment increased in the three

case privatized firms and the overall data shows 12% increment in employment. Alkyd Resin was having average number of 112 during post privatization period and at post privatization period the average number decreased to a total of 79 employees. The average number of employees is decreased by 33 or (29%). According to company sources and information obtained from discussion, the enterprise has implemented a new organizational structure and retrenched on average 33 employees.

g. Change in leverage

The switch from public to private ownership lead to decrease in leverage because the government's removal of debt guarantee will increase the firms' cost of borrowing and because firms will have increased access to public equity market domestically and internationally.

Here the researcher tried to see changes in leverage by observing changes in total debt to total asset (TATD) ratio. Total debt to total asset measures how much of total asset is financed by creditor(s) and how much by owner(s). It gives important information about prospects for future financing. This ratio is calculated using a formula as follows:

Debt to Total Asset = Total Debt / Total Asset

Table 11: Debt Ratio

Firm	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change
Alkyd Resin PLC	0.1426	0.3347	0.1921	1.3466
Addis Ababa Foam and Plastic Factory	0.8940	0.3880	-0.5059	-0.5660
Addis Ababa Bottle and Glass Factory	0.4021	0.3068	-0.0954	-0.2372
Nefas Silk Paint Factory	0.8151	0.3821	-0.4330	-0.5313
Mean of Means	0.5635	0.3529	-0.2106	-0.3737

Source: Financial Statements of the case privatized SOEs

All the three case firms except Alkyd Resin S.C experienced decline in Debt Ratio as predicted. However Alkyd Resin's S.C. leverage increases which is in contrary to the hypothesis made using other countries experience. In general, mean of TATD decrease by 37.37% after privatization. The reason is due to the fact that their total asset has increased upon privatization and much of their debts are settled in the privatization process by the owners.

h. Current Ratio

This ratio is used to measure the firm's ability to pay its term obligations. I used the current asset to current liability ratio (current ratio) to measure liquidity of the four privatized firms. This ratio indicates the extent to which the claims of short term creditors and the maturing part of the long term debts are covered by assets that are expected to be converted to cash in a period of corresponding to the maturity of the claims. Current ratio is computed as:

Current Ratio = Current Asset / Current Liability

The higher the current ratio the higher will be the firm's ability to meet its current obligations.

Table 12: Current Ratio

Firm	Mean Before Privatization	Mean After Privatization	Absolute Change	Relative Change
Alkyd Resin PLC	5.3039	4.0958	-1.2081	-22.78%
Addis Ababa Foam and Plastic Factory	0.9014	3.4467	2.5452	282.35%
Addis Ababa Bottle and Glass Factory	1.6171	1.5605	-0.0566	-3.50%
Nefas Silk Paint Factory	1.0994	3.5217	2.4224	220.34%
Mean of Means	2.2304	3.1561	0.9257	41.50%

Source:

Current ratio has decreased for the two privatized firms Alkyd Resin and Addis Ababa Bottle and Glass Factory. While in the case of Nifas Silk Paint Factory and Addis Ababa Foam and Plastic Factory the ratio has increased after privatization. When computing for the whole sample mean, current ratio has increased by 41.5% in post privatization period. This indicates the difficulty of covering the short term debts in the case of Alkyd Resin and Addis Ababa Bottle and Glass Factory and in contrast the ability of covering their short term obligations in the case of Nifas Silk Paint and Addis Ababa Foam and Plastic Factories.

Regarding factors that have influenced privatization effectiveness on firm performance in Ethiopia, responses from experts from PPESA, Management of the case privatized firms and a study report from PPESA indicated the following:

- Modernization, Rehabilitation and Optimization Program

A company can produce more output from the existing plant by keeping it in a good working condition, so that it can be used at close to 100 percent capacity. The years of negligence in repair and maintenance services during the public sector ownership regime resulted in low capacity utilization, loss of operating days and the delays in committed supplies.

As learnt from interviews from the management of the companies, as soon as the chemical industries were privatized, the monopoly of all the firms gradually got eliminated except Addis Ababa Bottle and Glass Factory. The price war between private and state-run companies led to an urgent need of replacement of the relatively older machines that has reached the expiry date, replacing with new, better, modern, and cost efficient and computerized plants. Elimination of fixed price formula and rising prices of output provided the lubrication for the new management to opt for Building, Modernization and Rehabilitation (BMR) of existing operating fixed assets.

The results show that under BMR programmes, the companies immediately achieved productive and cost efficiency. However, it will take time to reap the full benefits of optimization program.

- Management of Working Capital

Indirect effects of privatization such as better access to mobilization of resources, and enough input-output inventory stocks for windfall gains in the period of uncertain demand are numerous. Shaikh (1985) . The building of sufficient working capital is important because of the fact that in case of default on payment of public sector firms, state usually intervenes and rescues the firm from ceasing production operation. Private sector firms do not enjoy such benefits.

The quantity of working capital of the privatized firms improved immediately after privatization. This ensured the new management for better competition in input market with the public firms that enjoyed a support from the state-owned institutions and corporations.

- Competition

The most important consequence of liberalization and privatization is certainly the expected increase in competition among the firms. It provides the base for efficiency improvement. A

significant increase in investment spending for capacity expansion and maintenance was necessary for the privatized firms to compete in new competitive environment after change of ownership and withdrawing of subsidies and this is what they did.

In the interviews conducted with experts from PPESA they explained, the ultimate effect of privatization resulted in change of relatively older plants used previously by SOEs, cost inefficient production process, incentives to employees all these are changed after SOEs are privatized. There also faced a stiff competition from powerful private and privatized firms in every sphere of activity ranging from production to marketing. So, in a nutshell, the period of 1995 to 2014 saw a developing competition among public, private and privatized firms.

- Capacity Utilization

In a survey conducted by PPESA, the rising demand does not ensure the higher capacity utilization which could lead to economies of large-scale production. The older machines did not have the ability to work as efficiently as new modern plant. In this case, higher capacity utilization may result in higher maintenance costs and some time it can offset the increase in profit due to economies of scale. Despite rising demand, the management may opt to remain at sub-optimal level of production if they face such situation. Privatized group of firms invested highly in technology upgrade and maintenance and achieved higher capacity utilization.

- Efficiency

Production of more output from a given input is called efficiency improvement. There is evidence to suggest that governments implementing privatization policies clearly expected that privatized firms will use their financial, technological and human resources more efficiently. By removing the non-economic objectives, governments expect increased operating and financial efficiency (Megginson et al. [1994]). The management, in a corporate culture is answerable to shareholders for their performance regarding capital/labour efficiency gains or losses.

Chapter Five: Summary, Conclusion and Recommendation

5.1. Summary

The objective of this study is to examine the impact of privatization on financial and operating performance of privatized enterprises in the chemical industry, by using both descriptive and quantitative ratio analysis. In order to achieve this objective, the study addressed the theoretical aspects of privatization, by reviewing concepts, objectives, methods, impacts, and experiences of some countries, particularly developing countries. Furthermore, the study concentrated on Ethiopia's privatization experience, which serves to establish a framework for the study and to derive the variables essential for conducting this examination.

To examine the performance of the case enterprises, the study followed the standard methodology of comparison used in the literature and empirical studies to compare the pre- and post- privatization financial and operating performance of the companies that experienced full privatization through selling the government shares.

In Summary when we see the profitability indicators: ROS increase significantly after privatization for the case privatized firms except for Nefas Silk Paint Factory. The mean performance of all the privatized firms indicated an upward movement in ROS. On the one hand the ROA for Alkyd Resin S.C and Addis Ababa Foam and Plastic Factory has increased. While the ROA for Addis Ababa Bottle and Glass Factory and Nefas Silk Paint Factory has declined. However, the average ROA of the firms has slightly increased in relative terms after privatization. While ROE has decreased in the entire firms except for Alkyd Resin as compared to the pre privatization period as measured by using mean ROE of the two periods.

Sales efficiency on the other hand show increase in all the four privatized firms with a mean increase of 133 %. Despite a slight decline in employment level of Alkyd Resin S.C. the employment level in the rest of the firms has increased, the sales efficiency has also improved after privatization.

Result of the study indicate that Income Efficiency increase for all the four case firms due to an increase in Net Income over growth rate of employment level. The mean of INEFF of the four privatized firms has increased in the post privatization period.

The Total Asset Utilization Ratio SATA has shown a decline in all the privatized firms as compared to pre privatization period with an average decline of 26%. As learnt from interviews held with the management of the firms, the reasons are the increase in value of assets as a result of acquisition of new fixed assets to upgrade and enhance the capacity of firms; and the un-proportionate increase in the amount of sales.

The mean fixed asset turnover of the privatized firms has decreased for the three firms. While there is an increment for Addis Ababa Foam and Plastic Factory. However, the overall mean has increased by 9.5% after privatization. The increasing effect of Addis Ababa Foam and Plastic Factory has dominated the rest and resulted in increase in the overall figure.

Mean of output has moved upward by 25% in post privatization period. The reason for the upward movement as explained by the officials of the respective privatized firms is the focus of the firms on expansion and rehabilitation, so that investments are made to improve the production capacity and resulted in increment of production with the help of better machineries and technologies.

Except for Alkyd Resin employment level has increased in the three case privatized firms and the overall data shows 12% increment in employment. Alkyd Resin was having average number of 112 during post privatization period and at post privatization period the average number decreased to a total of 79 employees. The average number of employees is decreased by 33 or (29%). According to company sources and information obtained from discussion, the enterprise has implemented a new organizational structure and retrenched on average 33 employees.

All the three case firms except Alkyd Resin S.C experienced decline in Debt Ratio as predicted. However Alkyd Resin's S.C. leverage increases which is in contrary to the hypothesis made using other countries experience. In general, mean of TATD decrease by 37.37% after privatization. The reason is due to the fact that their total asset has increased upon privatization and much of their debts are settled in the privatization process by the owners.

Current ratio has decreased for the two privatized firms Alkyd Resin and Addis Ababa Bottle and Glass Factory. While in the case of Nifas Silk Paint Factory and Addis Ababa Foam and Plastic Factory the ratio has increased after privatization. When computing for the whole sample

mean, current ratio has increased by 41.5% in post privatization period. This indicates the difficulty of covering the short term debts in the case of Alkyd Resin and Addis Ababa Bottle and Glass Factory and in contrast the ability of covering their short term obligations in the case of Nifas Silk Paint and Addis Ababa Foam and Plastic Factories.

5.2. Conclusion

The result of the study showed that there were mixed results in the performance of the case chemical enterprises after privatization in terms of profitability, operating efficiency and liquidity compared to their performance before privatization.

The profitability indicators ROS and ROA on average (at industry level) showed a better performance while ROE on average showed a decline. In addition to this effect, the operation performance indicators sales and income efficiency have shown a better performance in all the firms and the industry as a whole. These particular results suggest that privatization has positive effects on the chemical industries in these regards. In addition, the study documents an improvement in output and indicated an improvement in solvency as measured by total assets. While the efficiency measures in terms of the total and fixed asset turnover exhibited a declined performance.

The performance indicators as measured by change in employment has on average showed a positive increment. And the leverage also as expected in the literature resulted in a decline at industry level. The current ratio has also improved after privatization. Moreover, the results indicated that there is an increase in production per employee.

Finally, the findings confirm that privatization resulted in an increase in capital expenditure after privatization. Even if it is impossible to generalize for all privatized firms in Ethiopia, the results from this study concur with empirical literature that states privatization improves the performance of privatized companies in terms of profitability and financial efficiency as in the indicated profitability and efficiency indicators. While the causes of such outcome most expect further empirical analysis, there is evidence to suggest that such causes may include but not limited to adequate finance, decrease in production cost and management efficiency.

The study also suggests that the factors that could have influenced privatization effectiveness on firm performance in Ethiopia could be summarized as the monopoly of firms gradually got eliminated which created a developing competition among public, private and privatized firms. As well Privatized enterprises invested highly in technology upgrade and maintenance and achieved higher capacity utilization and better efficiency.

The above conclusions on the case privatized chemical enterprises performance during the three -year period before and the three -year period after privatization are inconclusive for all the privatization exercise in the country, as this indicator only computed for specific industry and limited number of privatized enterprises.

More fundamentally, the analysis, for all its limitations with respect to methods and data, does underline the point that it is very easy to draw premature conclusions concerning the efficacy of privatization. The risk of doing this is far higher when conclusions are derived from relatively small samples and a limited set of performance indicators.

5.3. Recommendations

The researcher tried to provide the following recommendations:

As this study has shown that privatization has a positive impact on selected indicators of the financial performance of an organization in terms of liquidity, profitability, solvency and financial efficiency, privatization should take place in poorly performing enterprises as it can greatly benefit from privatizing commercially oriented enterprises.

To sustain the positive benefits of privatization, there is a need for privatized companies to engage professionals in the running of the companies who can foster transparency and credibility as is the case of chemical enterprises. In this manner, management of the privatized companies would be able to make them attractive to the market and be able to compete in growing competitive industries.

Policy makers should borrow from the experience of the case chemical enterprises' privatization and advice the government of creating an enabling political and economic environment that

would ensure the gains made during privatization are sustained through efficient and effective use of resources, as this study has shown that privatization increases some efficiency in resource utilization.

5.4 Further Research

By using a much broader based sample and a comparative perspective it is hoped that the results this study's analysis have indicated that assessing post-privatization performance is quite complex, and the underlying answers to why performance may vary over time and between institutional contexts must inevitably be reinforced by a more specific and detailed examination of particular cases.

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Appendices

Annex 1

The ROS in the pre and post privatization, and mean ROS for the four case privatized firms before and after privatization are presented in the following table.

Firm	Year	Net Income in '000	Sales in '000	ROS	Avg. ROS
Alkyd Resin S.C.	Pre Privatization				
	2005	444	9,790	0.04534	0.06130
	2006	1,313	17,720	0.07407	
	2007	1,238	19,197	0.06449	
	Post Privatization				
	2009	2,574	29,320	0.0878	0.1280
	2010	8,163	48,547	0.1681	
Addis Ababa Foam and Plastic Factory	Pre Privatization				
	2009	6,576	49,988	0.1316	0.1646
	2010	12,572	63,597	0.1977	
	Post Privatization				
	2011	24,292	107,807	0.2253	0.2407
	2012	29,660	140,307	0.2114	
	2013	41,016	143,695	0.2854	
Addis Ababa Bottle and Glass Factory	Pre Privatization				
	2008	11,940	41,576	0.2872	0.2032
	2009	7,429	42,763	0.1737	
	2010	6,121	41,183	0.1486	
	Post Privatization				
	2012	14,163	55,347	0.2559	0.2779
	2013	27,706	92,378	0.2999	
Nefas Silk Paint Factory	Pre Privatization				
	2008	16,851	72,648	0.2320	0.2418
	2009	16,815	73,687	0.2282	
	2010	20,308	76,555	0.2653	
	Post Privatization				
	2011	35,606	167,276	0.2129	0.2036
	2012	47,462	239,132	0.1985	
	2013	71,199	356,849	0.1995	

ROS for the four case firms own computation based on the firms' audited financial statements.

Annex 2

The ROA in the pre and post privatization, and mean ROA for the four case privatized firms before and after privatization are presented in the following table.

Firm	Year GC	Net Income in '000 Birr	Total Assets in '000 Birr	ROA	Average ROA
Alkyd Resin	Pre Privatization				
	2005	444	16,908	0.0263	0.0597
	2006	1,313	16,214	0.0810	
	2007	1,238	17,189	0.0720	
	Post Privatization				
	2009	2,574	37,283	0.0690	0.1017
	2010	8,163	60,796	0.1343	
Addis Ababa Foam and Plastic Factory	Pre Privatization				
	2009	6,576	33,053	0.1990	0.2414
	2010	12,572	44,282	0.2839	
	Post Privatization				
	2011	24,292	98,114	0.2476	0.2971
	2012	29,660	95,665	0.3100	
	2013	41,016	122,899	0.3337	
Addis Ababa Bottle and Glass Factory	Pre Privatization				
	2008	11,940	53,661	0.2225	0.1561
	2009	7,429	55,792	0.1332	
	2010	6,121	54,281	0.1128	
	Post Privatization				
	2012	14,163	117,380	0.1207	0.1155
	2013	27,706	251,035	0.1104	
Nefas Silk Paint Factory	Pre Privatization				
	2008	16,851	30,853	0.5462	0.5366
	2009	16,815	31,080	0.5410	
	2010	20,308	38,863	0.5226	
	Post Privatization				
	2011	35,606	130,243	0.2734	0.3076
	2012	47,462	151,203	0.3139	
	2013	71,199	212,225	0.3355	

ROA for the case privatized firms own computation based on firm's audited financial statements.

Annex 3

The ROE in the pre and post privatization, and mean ROE for the four case privatized firms before and after privatization are presented in the following table.

Firm	Year GC	Net Income in '000 Birr	Owner's Equity in '000 Birr	ROE	Average ROE
Alkyd Resin	Pre Privatization				
	2005	444	14,327	0.0310	0.0694
	2006	1,313	14,372	0.0913	
	2007	1,238	14,412	0.0859	
	Post Privatization				
	2009	2,574	29,245	0.0880	0.1669
	2010	8,163	33,211	0.2458	
Addis Ababa Foam and Plastic Factory	Pre Privatization				
	2009	6,576	4,014	1.6383	2.3851
	2010	12,572	4,014	3.1320	
	Post Privatization				
	2011	24,292	37,312	0.6511	0.5501
	2012	29,660	57,181	0.5187	
	2013	41,016	85,342	0.4806	
Addis Ababa Bottle and Glass Factory	Pre Privatization				
	2008	11,940	32,380	0.3688	0.2609
	2009	7,429	32,635	0.2276	
	2010	6,121	32,851	0.1863	
	Post Privatization				
	2012	14,163	85,506	0.1656	0.1667
	2013	27,706	165,192	0.1677	
Nefas Silk Paint Factory	Pre Privatization				
	2008	16,851	5,119	3.2921	2.9408
	2009	16,815	6,713	2.5050	
	2010	20,308	6,713	3.0253	
	Post Privatization				
	2011	35,606	60,918	0.5845	0.5071
	2012	47,462	101,671	0.4668	
	2013	71,199	151,445	0.4701	

ROE for the case privatized firms own computation based on firm's audited financial statements.

Annex 4

The Sales Efficiency in the pre and post privatization, and mean SALEFF for the four case privatized firms before and after privatization are presented in the following table.

Firm	Year GC	Sales in '000 Birr	Total Employment	SALEFF	Average SALEFF
Alkyd Resin	Pre Privatization				
	2005	9,790	112	87,411	164,979
	2006	17,720	112	158,212	
	2007	19,197	77	249,315	
	Post Privatization				
	2009	29,320	77	380,779	538,095
	2010	48,547	82	592,042	
	2011	52,600	82	641,463	
Addis Ababa Foam and Plastic Factory	Pre Privatization				
	2008	37,293	190	196,279	286,827
	2009	49,988	156	320,436	
	2010	63,597	185	343,768	
	Post Privatization				
	2011	107,807	170	634,159	716,677
	2012	140,307	181	775,177	
	2013	143,695	194	740,696	
Addis Ababa Bottle and Glass Factory	Pre Privatization				
	2008	41,576	314	132,407	114,364
	2009	42,763	437	97,856	
	2010	41,183	365	112,830	
	Post Privatization				
	2012	55,347	412	134,338	161,432
	2013	92,378	490	188,527	
Nefas Silk Paint Factory	Pre Privatization				
	2008	72,648	166	437,640	423,542
	2009	73,687	184	400,472	
	2010	76,555	177	432,514	
	Post Privatization				
	2011	167,276	205	815,982	892,691
	2012	239,132	280	854,043	
	2013	356,849	354	1,008,048	

SALEFF for the case privatized firms own computation based on firm's audited financial statements

Annex 5

The Income Efficiency in the pre and post privatization, and mean Income Efficiency for the four case privatized firms before and after privatization are presented in the following table.

Firm	Year GC	Net Income in '000 Birr	Total Employment	INEFF	Average INEFF
Alkyd Resin	Pre Privatization				
	2005	444	112	3,963	10,587
	2006	1,313	112	11,719	
	2007	1,238	77	16,079	
	Post Privatization				
	2009	2,574	77	33,429	66,490
	2010	8,163	82	99,551	
Addis Ababa Foam and Plastic Factory	Pre Privatization				
	2008	2,992	190	15,747	41,953
	2009	6,576	156	42,154	
	2010	12,572	185	67,957	
	Pre Privatization				
	2011	24,292	170	142,894	172,728
	2012	29,660	181	163,867	
	2013	41,016	194	211,423	
Addis Ababa Bottle and Glass Factory	Pre Privatization				
	2008	11,940	314	38,027	23,932
	2009	7,429	437	17,000	
	2010	6,121	365	16,769	
	Post Privatization				
	2012	14,163	412	34,377	45,461
	2013	27,706	490	56,544	
Nefas Silk Paint Factory	Pre Privatization				
	2008	16,851	166	101,511	102,544
	2009	16,815	184	91,387	
	2010	20,308	177	114,733	
	Post Privatization				
	2011	35,606	205	173,688	181,441
	2012	47,462	280	169,507	
	2013	71,199	354	201,127	

INEFF for the case privatized firms own computation based on firm's audited financial statements

Annex 6

The Total Asset Turnover in the pre and post privatization, and mean Total Asset Turnover for the four case privatized firms before and after privatization are presented in the following table.

Firm	Year GC	Sales in '000 Birr	Total Assets '000 Birr	Asset Turnover	Average Total Asset Turnover
Alkyd Resin	Pre Privatization				
	2005	9,790	16,908	0.5790	0.9296
	2006	17,720	16,214	1.0929	
	2007	19,197	17,189	1.1168	
	Post Privatization				
	2009	29,320	37,283	0.7864	0.7925
	2010	48,547	60,796	0.7985	
Addis Ababa Foam and Plastic Factory	Pre Privatization				
	2009	49,988	33,053	1.5123	1.4743
	2010	63,597	44,282	1.4362	
	Post Privatization				
	2011	107,807	98,114	1.0988	1.2449
	2012	140,307	95,665	1.4666	
	2013	143,695	122,899	1.1692	
Addis Ababa Bottle and Glass Factory	Pre Privatization				
	2008	41,576	53,661	0.7748	0.7667
	2009	42,763	55,792	0.7665	
	2010	41,183	54,281	0.7587	
	Post Privatization				
	2012	55,347	117,380	0.4715	0.4198
	2013	92,378	251,035	0.3680	
Nefas Silk Paint Factory	Pre Privatization				
	2008	72,648	30,853	2.3547	2.2318
	2009	73,687	31,080	2.3709	
	2010	76,555	38,863	1.9699	
	Post Privatization				
	2011	167,276	130,243	1.2843	1.5158
	2012	239,132	151,203	1.5815	
	2013	356,849	212,225	1.6815	

SATA for the case privatized firms own computation based on firm's audited financial statements

Annex 7

The Fixed Asset Turnover in the pre and post privatization, and mean Fixed Asset Turnover for the four case privatized firms before and after privatization are presented in the following table.

Firm	Year	Sales in '000 Birr	Total Fixed Assets	Fixed Asset Turnover	Average Fixed Asset Turnover
Alkyd Resin	Pre Privatization				
	2005	9,790	4,326	2.2628	3.5841
	2006	17,720	4,469	3.9648	
	2007	19,197	4,243	4.5247	
	Post Privatization				
	2009	29,320	11,375	2.5775	2.7158
	2010	48,547	17,010	2.8540	
Addis Ababa Foam and Plastic Factory	Pre Privatization				
	2009	49,988	15,126	3.3048	3.9635
	2010	63,597	13,759	4.6223	
	Post Privatization				
	2011	107,807	11,930	9.0363	12.9919
	2012	140,307	10,132	13.8481	
	2013	143,695	8,930	16.0913	
Addis Ababa Bottle and Glass Factory	Pre Privatization				
	2008	41,576	14,190	2.9300	2.9322
	2009	42,763	13,259	3.2253	
	2010	41,183	15,592	2.6414	
	Post Privatization				
	2012	55,347	26,722	2.0712	2.9150
	2013	92,378	24,577	3.7588	
Nefas Silk Paint Factory	Pre Privatization				
	2008	72,648	2,468	29.4375	20.9333
	2009	73,687	4,075	18.0838	
	2010	76,555	5,011	15.2788	
	Post Privatization				
	2011	167,276	13,182	12.6893	15.7735
	2012	239,132	15,928	15.0133	
	2013	356,849	18,190	19.6181	

SAFA for the case privatized firms own computation based on firm's audited financial statements

Annex 8

The leverage in the pre and post privatization, and mean leverage for the four case privatized firms before and after privatization are presented in the following table.

Firm	Year	Total Debt in '000 Birr	Total Assets in '000 Birr	Debt to Total Asset	Average Debt to Total Asset Ratio
Alkyd Resin					
	2005	2,581	16,908	0.1527	0.1426
	2006	1,842	16,214	0.1136	
	2007	2,777	17,189	0.1616	
	2009	8,038	37,283	0.2156	0.3347
	2010	27,585	60,796	0.4537	
Addis Ababa Foam and Plastic Factory					
	2009	29,039	33,053	0.8786	0.8940
	2010	40,268	44,282	0.9094	
	2011	60,802	98,114	0.6197	0.3880
	2012	22,838	95,665	0.2387	
	2013	37,557	122,899	0.3056	
Addis Ababa Bottle and Glass Factory					
	2008	21,281	53,661	0.3966	0.4021
	2009	23,157	55,792	0.4151	
	2010	21,430	54,281	0.3948	
	2012	31,875	117,380	0.2716	0.3068
	2013	85,843	251,035	0.3420	
Nefas Silk Paint Factory					
	2008	25,734	30,853	0.8341	0.8151
	2009	24,367	31,080	0.7840	
	2010	32,150	38,863	0.8273	
	2011	69,326	130,243	0.5323	0.3821
	2012	49,532	151,203	0.3276	
	2013	60,780	212,225	0.2864	

Debt Ratio for the case privatized firms own computation based on firm's audited financial statements

Annex 9

The Current Ratio in the pre and post privatization, and mean leverage for the four case privatized firms before and after privatization are presented in the following table.

Firm	Year GC	Total Current Asset in '000 Birr	Total Current Liability in '000	Current Ratio	Average Current Ratio
Alkyd Resin	Pre Privatization				
	2005	12,581	2,581	4.8744	5.3039
	2006	11,745	1,842	6.3759	
	2007	12,946	2,777	4.6613	
	Post Privatization				
	2009	20,377	8,038	2.5350	4.0958
	2010	38,755	6,851	5.6565	
Addis Ababa Foam and Plastic Factory	Pre Privatization				
	2009	17,927	19,866	0.9024	0.9014
	2010	30,523	33,897	0.9005	
	Post Privatization				
	2011	54,742	25,420	2.1535	3.4467
	2012	57,270	15,646	3.6603	
	2013	89,139	19,694	4.5262	
Addis Ababa Bottle and Glass Factory	Pre Privatization				
	2008	35,695	21,281	1.6773	1.6171
	2009	35,465	23,157	1.5315	
	2010	35,199	21,430	1.6425	
	Post Privatization				
	2012	34,512	31,875	1.0828	1.5605
	2013	174,962	85,843	2.0382	
Nefas Silk Paint Factory	Pre Privatization				
	2008	28,311	24,883	1.1378	1.0994
	2009	27,005	24,357	1.1087	
	2010	33,811	32,150	1.0516	
	Post Privatization				
	2011	80,523	25,155	3.2010	3.5217
	2012	102,873	30,401	3.3839	
	2013	165,769	41,648	3.9802	

Current Ratio for the case privatized firms own computation based on firm's audited financial statements

Interview Questions

1. The Return on Sales, Return on Asset and Return on Equity of your company has exhibited an increment; as compared to the post privatization period; What do you think is the reason and how do you explain that? (General Manager Alkyd Resin S.C.)
2. The Return on Sales (except for the year 2012), ROA for your company has exhibited an upward movement while ROE has exhibited a decline after privatization; Could you please explain the reason behind? (General Manager A.A. Foam and Plastic Factory)
3. The Return on Sales of your company has dramatically changed positively just after privatization , the net income as well as sales volume exhibited an increment as compared to the post privatization period; while ROA and ROE has declined in the post privatization period; What do you think is the reason and how do you explain that? (General Manager A.A. Bottle and Glass Factory)
4. Though there is remarkable increment in sales, there is a decline in ROS and ROE for your company in the post privatization period while there is an increment in ROA; what do you think are the reason, please explain? (General Manager Nefas Silk Paint Factory)
5. Though there is a decline in total employment the sales volume and sales in amount has increased in the post privatization period, could you please explain what the reasons are? (General Manager Alkyd Resin S.C.)
6. The sales efficiency for the factory has shown a remarkable positive change in the post privatization period, how could you explain this? (General Manager A.A. Foam and Plastic Factory)
7. How do you explain why sales efficiency of the factory exhibited positive change after privatization? (General Manager A.A. Bottle and Glass Factory)
8. How do you explain why the sales efficiency of the factory exhibited an upward movement in the post privatization period? (General Manager Nefas Silk Paint Factory)
9. The efficiency measure Net Income per Employee for your company has shown significant increase after privatization; could you explain what the reasons behind? (General Manager Alkyd Resin S.C.)
10. The income efficiency of your factory has risen in the post privatization period; could you explain what the reasons behind? (General Manager A.A. Foam and Plastic Factory)
11. The income per employee for your company has increased remarkably after privatization; What do you think is the reason and how do you explain that? (General Manager A.A. Bottle and Glass Factory)
12. The efficiency measure Net Income per Employee for your company has shown significant increase after privatization; could you explain what the reasons behind? (General Manager Nefas Silk Paint Factory)
13. The average total asset turnover (or total asset utilization ratio) has exhibited a decline in the post privatization period for your company; could you please explain the reasons behind? (for all the case firms)
14. As compared to the pre privatization period, the average fixed asset turnover for your company has shown a decline; could you please explain what the explaining factors could be? (General Manager Alkyd Resin S.C.)
15. As compared to the pre privatization period, the average fixed asset turnover for your company has shown a positive increment; could you please explain what the explaining factors could be? (General Manager A.A. Foam and Plastic Factory)

16. As compared to the pre privatization period, the average fixed asset turnover for your company has shown a decline; could you please explain what the explaining factors could be? (General Manager A.A. Bottle and Glass Factory)
17. As compared to the pre privatization period, the average fixed asset turnover for your company has shown a decline; could you please explain what the explaining factors could be? (General Manager Nefas Silk Paint Factory)
18. How do you explain the average upward change in output in the post privatization period for your company? (General Manager Alkyd Resin S.C.)
19. How do you explain the average upward change in output in the post privatization period for your company? (General Manager A.A. Foam and Plastic Factory)
20. How do you explain the average downward change in output in the post privatization period for your company? (General Manager A.A. Bottle and Glass Factory)
21. How do you explain the reason why the average output of your company exhibited upward change in the post privatization period? (General Manager Nefas Silk Paint Factory)
22. In contrast to the theoretical background the leverage of your company after privatization has shown a positive change; how do you explain the possible reason that might resulted in the positive change? (General Manager Alkyd Resin S.C.)
23. Could please explain what factors have influenced the effectiveness of privatized firm performance? (Experts from PPESA, Management of the case firms)

Contents