A COMPARISON OF THE FINANCIAL PERFORMANCE OF STATE-OWNED ENTERPRISES (SOEs) AND PRIVATIZED ENTERPRISES IN KENYA 0

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DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

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DATED

This research project has been submitted for examination with my approval as University Supervisor

MOSES N. ANYANGU..............**f**

DATED......................*lJ.u.(v.2.*

DEDICATION

This research paper is dedicated to the late

Janet Ng'ang'a Gakumo

Joseph Ng'ang'a Gakumo

Ruth Thoiya Thiani

"God bless their souls"

In sincere and deep appreciation for their enduring love and the many sacrifices that they made to ensure that I acquire the best and highest level of knowledge.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF GRAPHS

ABSTRACT

In response to the financial burdens and budgetary constraints caused by SOEs in many developing countries, the World Bank and the International Monetary Fund advocated privatization as a panacea to these economic problems.

In 1991, Kenya embarked on a comprehensive program to privatize 207 SOEs and by 1996, 141 had been privatized. However, the process has slowed down as the new NARC government maintains that it will take time to restructure the SOEs before privatizing them.

The main objective of this study was to determine whether privatised enterprises perform better than public enterprises during the same period of time. The profitability of the enterprises privatized by 1996 through public flotation of shares was compared with that of SOEs during the period 1996-2001 both years inclusive. The rate of change in return on equity and return on assets over the six year period for both groups were also compared. The differences in the means were tested for significance using the t-test.

The findings of this study indicate that the return on equity of the Privatized Enterprises is significantly higher by more than 80% that of SOEs. There is a decline in the profitability of both the SOEs and the Privatized Enterprises over the six year period. The return on equity of SOEs decreases at an average rate of 181.17% compared to the average rate of change in Privatized Enterprises of 11.77%, which is more than ten times. However, the difference is not significant.

The study concludes that the Privatized Enterprises have a significantly higher return on shareholders' wealth than the SOEs over the six year period. Although the rate of change in the return on equity for both groups is not significantly different, the shareholders' wealth of Privatized Enterprises is more stable than that of SOEs over the six year period.

Therefore, the study supports privatization and recommends that the Kenyan government should pursue the process while creating the necessary conditions for privatisation to achieve the expected economic development and growth.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

1.1.1 OVERVIEW OF PRIVATIZATION

In the 1960s and 1970s, Governments created State Owned Enterprises (SOEs) to ensure their involvement in the productive economic activities within their countries. The key objective was to achieve economic development, regional balance, local participation and control of the economy.

In the 1980s, developing countries were faced with fiscal crises that constrained capacity of governments to invest in SOEs. The resultant negative repercussions at the macroeconomic level led to the adverse effects on firms in both the private and public sector. There was, therefore, a need for reforms. These reforms implemented through the Structural Adjustment Programs prescribed by the World Bank, International Monetary Fund and other development partners, emphasized privatization of SOEs.

The main types of enterprises that have been privatized are in the sectors of power generation, telecommunications, water provision and transport services. However, there is significantly higher private sector involvement in power generation and telecommunication sectors.

Privatization is proving to be more successful in developing countries suggesting that the level of development in a country could have an impact on the degree to which privatization is successful (Boubakri and Cosset, 2000). Hence, the analysis of the privatization process in developing countries is becoming important.

1.1.2 WHAT IS PRIVATIZATION?

Broadly, privatization involves the transfer of ownership and/or control of SOEs to private investors. Privatization broadens the ownership base and participation in the economy making individuals feel that they have a stake in the economic system (Aseto and Okelo, 1997).

Originating from Chile, the UK and New Zealand, privatization has gradually taken on global dimension, turning into a major phenomenon for both the developed and developing countries (Heracleous, 1999). This new wave of privatization is caused by several factors. However, the most significant is the general poor performance in efficiency and productivity of SOEs especially in developing countries.

Privatization takes several forms which include;

1. Complete or partial in terms of amount of equity sold to private investors;
2. Full or selective in terms of which parts of the state enterprise are sold;
3. It may involve liberalization, where a competitive climate and market forces are promoted to replace monopolistic or oligopolistic climate;

4. It may involve transfer of ownership through methods like leasing state facilities for a fee, bringing in external management, or contracting out the provisions of a particular service.

1.1.3 PRIVATIZATION IN KENYA

Kenya embraced privatization like most developing countries as a means of improving the performance of the SOEs and as a requirement by the World Bank and IMF. In 1991, Kenya embarked on a comprehensive programme to privatize 207 SOEs and by 1996,141 enterprises had so far been privatized.

Privatization has been done through public share offering through the Nairobi Stock Exchange, competitive bidding conducted by the Executive Secretariat and Technical Unit (ESTU) or receivers, liquidation and pre-emptive Rights.

Few enterprises have been privatized by public share offer on the Nairobi Stock Exchange because

1. Most of the profitable companies has pre-emptive rights that were exercised to achieve privatization;
2. Most of the SOEs could not meet the requirements of the Nairobi Stock Exchange since they were not economically sound; and
3. Others were too small to be offered economically on the Stock Exchange.

Though the Government has reduced its shareholding in certain SOEs like Kenya Commercial Bank, Kenya Airways and National Bank of Kenya among others, the restructuring and privatization of key public enterprises like Kenya Ports

Authority, Kenya Power and Lighting Co, Telkom Kenya, Kenya Railways etc is yet to be completed.

1.1.4 RATIONALE FOR PRIVATIZATION

Empirical studies, though limited, show that private enterprises perform better than the SOEs suggesting that privatization has a positive impact on the financial and operating performance of enterprises.

Ogeto (1994) observed that the private sector perform to the extent of 100% and over better than the public enterprises.

The overall performance of Kenyan firms is better after privatization. They are more efficient and profitable and the gains of privatization are substantial except for employment (Odondi, 1998)

Bogdanovicius (2000) observed that private ownership is more beneficial to an economy and society than public ownership.

D'Souza and Megginson (1998) concluded that privatization works, and it works in almost every institutional setting examined.

Durchslag, Puri and Rao (1994) observed that privatization could have multiple direct and indirect benefits not only for the enterprises themselves but also for the state as a whole.

Vining and Boardman (1992) in their study on the impact of privatization in Canada based on 370 private companies, mixed enterprises and SOEs, concluded that private companies generally have higher performance than the rest in terms of profitability and efficiency.

1.1.5 ALTERNATIVE VIEWS ON PRIVATIZATION

Though privatization is seen to be beneficial to the economy, it is difficult to ascertain the real causes of the improved performance because the short-term effects of divestiture, on which most studies are based, cannot give the full picture of the economic changes associated with a change in ownership.

There is evidence of increasing performance before privatization takes place showing enhanced productivity even when firms are controlled by the state. This reaction could be caused by the announcement of privatization that can work as a threat to public managers and suggest that incentive mechanisms can improve the performance of SOEs before privatization and after a change from a harder budget control regime (Erbetta and Fraquelli, 2001)

The emergence of the ownership debate on whether ownership matters poses a key issue on whether superior performance could be attributed to different market environments that SOEs and private companies face as opposed to their ownership. This would imply that a more competitive market climate is responsible for superior performance of private companies rather than the fact that they are privately owned (Kay and Thompson, 1986).

Experiences from Singapore also show that private ownership is not necessarily associated with superior performance. In Singapore, SOEs have been highly efficient and deliver operational surpluses (Heracleous, 1999). This evidence poses a challenge to the widely held view that private ownership leads to superior performance.

This study seeks to evaluate the impact of privatization on the financial and operating performance of SOEs in Kenya.

It builds on other previous contributions on privatization by introducing a control group of SOEs, which are not privatized. The study evaluates the effects of privatization by comparing the financial and operating performance of the experimental group (i.e. privatized enterprises) and the control group (i.e. SOEs not privatized) during the same period of time.

1.2 STATEMENT OF THE PROBLEM

Recent empirical studies on the impact of privatization confirm that privatization can be beneficial especially for firms operating in a competitive market structure in middle-income countries (Boubakri and Cosset, 2000). "Privatization works and it works in almost every institutional setting examined" (D'Souza and Megginson, 1998)

The ownership debate suggests that a competitive market environment could be responsible for superior performance and not necessarily the ownership (Kay and Thompson, 1986). The problem of SOEs is not their ownership but the absence of explicit goals and objectives focusing on efficiency and lack of organizational cultures and control systems to support the goals and objectives (Wortzel and Wortzel, 1989)

There is, therefore conflicting empirical evidence on the impact of privatization.

Odondi (1998) evaluated the financial and operating performance of newly privatized SOEs before and after privatization. The performance could have been influenced by other factors that are not easy to determine. The study did not control for other factors that may have an effect on the financial and operating performance.

It is, therefore, necessary to evaluate the performance of SOEs that have been privatized against the performance of SOEs, which are not privatized as a way of assessing the effects of privatization on shareholder's wealth. The study uses the privatized enterprises as an experimental group and introduces a control group of SOEs, which are not privatized. The performance of the experimental group after privatization is evaluated. The observed performance is compared against that of the control group to establish the effects of privatization on the financial and operating performance over the same period of time.

1.3 OBJECTIVE OF THE STUDY

The main objective of the study is to determine whether privatized enterprises perform better than public enterprises.

1.4 IMPORTANCE OF THE STUDY

The study is important because

1. It will bring in new evidence on the impact of privatization "Ceteris paribus" (holding all other factors constant).
2. It will give direction for Kenya on the way forward on privatization, a process that seems to be more costly than beneficial to the country.
3. It will provide a basis on which Kenya may adopt other measures of improving the performance of SOEs and not just privatize with the expectation of improved performance.
4. It will add to the growing knowledge and empirical studies of privatization and its impacts on the financial and operating performance.

CHAPTER TWO

LITERATURE REVIEW

2.1 THEORY OF PRIVATIZATION

Privatization is the supply side economics based on the hypothesis that private ownership brings greater efficiency and more rapid growth. This theory is based on the fact that economic agents respond better to price incentives and signals in general.

Privatization broadens the ownership base and participation in the economy making individuals feel that they have a stake in the economic system (Aseto and Okelo, 1997). This is because while improving efficiency, increasing output and lowering cost, privatization also controls the increase of government expenditure, raises cash to reduce public internal and external debt, promotes individual initiative and rewards entrepreneurship.

The approaches that have a bearing on privatization are those of property rights, principal-agent and public choice (Vickers and Yarrow, 1988)

2.1.1 THE PROPERTY RIGHT THEORY

The property right theory argues that different ownership arrangement can lead to differential incentives on the economic behavior of the firm. The underlying proposition is that the residual claims on control i.e. rights to the assets represent a strong incentive towards the enhancement of efficiency (Grossman and Hart, 1986). Removing the property right from the public control could have a positive impact on productive performance and innovation. Two typical threats that characterize the market for corporate control are take-over and bankruptcy. According to the theory, these threats will have an incentive mechanism (Kay and Thompson, 1986)

2.1.2 THE PRINCIPAL- AGENT THEORY

Principal-agent theory focuses on the separation between ownership and control. The control is that exercised by management. Where ownership and control is separated the managers exploit the information available to them and concentrate on maximizing slacks rather than profits i.e. reduce the moral hazard, which private ownership has achieved.

2.1.3 THE PUBLIC CHOICE THEORY

Public choice theory argues that the public officers will try to maximize their own political utility rather than the public interest. The information about internal efficiency condition is not available to taxpayers but rather it is paying high political transaction costs. This allows the SOEs to enjoy easy subsidies from the governments.

2.2 PRESSURES FOR PRIVATIZATION

Savas (1989) identified the major forces behind privatization as pragmatic, ideological, commercial and populist.

The goal of the pragmatic force is better government as a result of more cost effective public services.

The ideological force aims at having government playing a smaller role in business than the private sector. A big government tends to be too powerful and thereby a threat to democracy. Since government decisions are political, they tend to be less trustworthy than free-market decisions.

The commercial force is focused on creating more business through the transfer of government spending to the private sector. Government spending is a large part of the economy. Its enterprises and assets can be put into better use by the private sector.

The populist force aims at having a better society whereby people have more choice in public sen/ices. People should have greater power in satisfying their common need while diminishing that of large public and private bureaucracies.

2.3 THE CASE FOR PRIVATIZATION

Empirical studies on the impact of privatization on the financial and operating performance confirm that privatization can be beneficial.

"Privatization works and it works in almost every institutional setting examined" D'Souza and Megginson (1998). In their study, they found out that there was a significant improvement in performance in both statistical and economic terms after privatization. According to Odondi (1998), the overall performance of Kenyan firms is better after privatization. They are more efficient and profitable and the gains of privatization are substantial except for employment.

Private ownership is more beneficial for an economy and society than public ownership (Bogdanovicus, 2000). This is because there is less incentive for Governments to aim for efficiency and public property for solving day-to-day political issues.

2.4 ARGUMENTS AGAINST PRIVATIZATION

Though, privatization is seen to be beneficial to the economy, it is difficult to ascertain the real causes of the improved performance because the short-term effects of divestiture cannot give the full picture of the economic changes associated with a change in ownership. Extending the long-term outcomes of privatization based on the short-term actual results assumes that the short-term gains are sustained.

Governments use privatization as a tool to achieve the same objectives pursed decades earlier. Therefore, for countries where the conditions responsible for the weak private sector have not changed much, privatization may not be beneficial. Privatization has been more successful in the developing countries than the developed countries. This is attributed to the fact that they have undergone substantial macroeconomic changes, which have changed the macroeconomic framework conducive to microeconomic efficiency gains.

2.5 OBJECTIVES OF PRIVATIZATION

Ramamurti (1991) identifies the objectives of privatization as improving government cash flow by reducing subsidies and capital infusions to SEOs, promoting popular capitalism through a wider ownership of shares, restraining the power of trade unions in the public sector, redistributing incomes and rents within society, satisfying foreign donors by reducing the government's role in the economy, and enhancing the efficiency and performance of the SOEs.

The Structural Adjustment Programs emphasized speedy privatization and not necessarily privatization that would improve efficiency and promote equity in ownership. In order to secure the much-needed financial support from the World Bank, the International Monetary Fund and donors, governments in developing countries adopted these programs. The programs lacked ownership and therefore most of them did not succeed and privatization did not have immediate positive effects as expected. Therefore, the full benefits may not be evident in the short run.

2.6 CONDITIONS FOR PRIVATIZATION

The most important conditions for privatization to be successful are country conditions and market conditions (Kireri, Nellis and Shirley, 1994)

The country conditions are an open trade regime, a stable and predictable environment for investment and a well-developed institutional and regulatory capacity.

The existence of competitive markets free from any market barriers will ensure that privatizing SEOs that are tradable in a transparent process will lead to improved efficiency.

2.7 METHODS OF PRIVATIZATION

The main methods of privatization are public tender and direct negotiation, public sale of shares, and pubic auction.

1. Public tender and direct negotiations are methods whereby one or several items are sold to the investor who has offered the highest price and the best investment proposal. These methods stipulate to the investors special requirements regarding the preservation of employment, the duration of investment and the qualification requirements prescribed by the state.
2. Public sale of shares is a method in which shares are sold on a stock exchange without quantitative restrictions to the number of buyers or the amount of shares purchased.
3. Public auction is the method whereby there is no limit in the number of potential buyers and the investor who has offered the highest bid is awarded the privatization contract.

Other methods that are not commonly used include lease with the right to purchase, transfer of control of state-owned enterprises and by special laws.

The method used will depend on the objectives of the government and the particular need of the country. However, the success of privatization depends directly on the method of privatization used.

To ensure efficient privatization, the privatization process should be conducted in a quick manner and the privatization method used should be transparent (Bogdanovicius, 2000).

2.8 PRIVATIZATION OF THE PUBLIC ENTERPRISES IN KENYA

The Kenyan Government pursued a policy of mixed economy by allowing the existence of both the private and public sectors from 1963 to the late 1970s.

The government's involvement was through the strengthening of existing parastatals and creation of new ones in all sectors of the economy that included agriculture, food processing, banking, insurance, distribution, retail trading, transportation, hotels and others.

By early 1980s, some of the SOEs had accumulated huge losses and debts and depended on Treasury for their financial survival. The Government realized that the SOEs were not achieving the primary objectives they were initially created to achieve and could be handled more efficiently by the private sector.

In 1982, a Working party chaired by Philip Ndegwa revealed that the government was directing a lot of its budgetary resources to support the commercial activities of some of the SOEs. Divestiture from some of the SOEs and full privatization of others was therefore recommended.

In 1986, the government issued Sessional Paper No 1 on Economic Management for Renewed Growth that emphasized the role of the private sector. Economic reforms that included removal of price control, import controls, freeing of the exchange rate and interest rates were implemented. These were aimed at liberalizing the economy and creating an investment climate that was more-friendly to the private sector.

The privatization process in Kenya commenced in July 1992 when the government issued a policy paper on pubic enterprise reform and privatization. In the same year the Parastatal Reform Program Committee (PRPC) chaired by the Minister of Finance and its secretariat, the Executive Secretariat and Technical Unit (ESTU) were set up to oversee the privatization process.

The main objectives of the privatization programme include to:

1. Enhance the role of the private sector in the economy;
2. Reduce the demand of the public enterprises on the Exchequer;
3. Rationalize the operations of public enterprises;
4. Improve the regulatory environment; and
5. Broaden the base of ownership and enhance the capital markets.

Privatization has been done through public share offering through the Nairobi Stock Exchange, competitive bidding by the Executive Secretariat and Technical Unit (ESTU) or receivers, liquidation and pre-emptive Rights.

Though the Government has reduced its shareholding in certain SOEs like Kenya Commercial Bank, Kenya Airways and National Bank of Kenya among others, the restructuring and privatization of key public enterprises like Kenya Ports Authority, Kenya Power and Lighting Co, Telkom Kenya, Kenya Railways etc is yet to be completed.

Table 1 below shows the SOEs privatized by 1996 and the amount of funds realized in their sale.

TABLE 1

SOEs PRIVATIZED AND PROCEED REALIZED BY 1996

METHOD OF SALE	No. OF ENTERPRISES	PROCEEDS KHS '000
Public Floatation	8	5,162,297
Competitive bidding	14	564575
Pre-emptive Rights	41	1,442,277
Partial Privatization	11	1,399,000
Management buyout	1	8,500
Receivership	15	996,716
Liquidation	12	1,300
SUB-TOTAL	**102**	**9,574,665**
Tea factories	39	3750
TOTAL	**141**	**9,578,415**

Information source: Treasury, Ministry of Finance

2.9 MEASURES OF PERFORMANCE

There are various measures of performance, which can be classified into profitability, operating efficiency, capital investment spending, output and employment (Ross, Westefield and Jaffe, 2000).

a. Profitability is the difference between income and expenses and can be measured by several ratios

    i. Return on Equity (ROE) is the coefficient on net income to the capital

$$ROE = \frac{\text{Net Income}}{\text{Average Equty}}$$

    ii. Return on Assets is the coefficient on net income to the net assets and

$$ROA = \frac{\text{Net Income}}{\text{Average total assets}}$$

    iii. Return on Sales measures the profit margin

$$ROS = \frac{\text{Net Income}}{\text{Sales}}$$

b. Operating efficiency measures how the firm utilizes its available resources. A firm attains maximum efficiency when maximum returns are generated at the minimum costs. The measures of operating efficiency include the following ratios

    i. Sales per employee is the amount of sales an employee generates for the business.

$$\text{Sales per employee} = \frac{\text{Sales}}{\text{Number of employees}}$$

ii. Net income per employee is the net income generated by each employee

$$\text{Net income per employee} = \frac{\text{Net Income}}{\text{Number of employees}}$$

c. Capital investment spending is the amount of capital a firm spends or uses to procure capital goods and fixed assets. It is measured by the following ratios

i. $\frac{\text{Capital expenditure}}{\text{Sales}}$

ii. $\frac{\text{Capital expenditure}}{\text{Total Assets}}$

d. Output is the real sales achieved through the normal business of the firm.

e. Employment is the number of employees engaged directly by an enterprise and includes all the workers - unskilled, semi-skilled and skilled.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

This study uses the experimental research design. An experimental group of privatized enterprises was selected. The privatized enterprises are those enterprises where the Government has disposed off its entire shareholding or still holds less than 50% of the shares and has no management control over the operations. A control group of SOEs that are not privatized was also selected. The experiment was privatization and the financial and operating performance of both the experimental and the control groups is compared for the period 1996-2001. This evaluated the performance of SOEs and Privatized Enterprises. The study focused on SOEs privatized through the floatation of shares at the Nairobi Stock Exchange.

The study covered the period 1996 - 2001 both years inclusive.

3.2 POPULATION

The population comprises the SOEs privatized by the end of year 1996 for the experimental group. The population for the control group is all SOEs that are not privatized during the same period. The number of privatized enterprises by 1996 is 141. However, the study focused on enterprises that were privatized through public floatation at the Nairobi Stock Exchange, which are about 8 enterprises.

The enterprises are those that are still listed at the Nairobi Stock Exchange during the study period.

3.3 SAMPLING PLAN

A judgmental sample of SOEs privatized by 1996 and listed at the Nairobi Stock Exchange during the period 1996 - 2001 was used as the experimental group. The sample for the control group was picked from SOEs, which are not privatized during the same period.

3.4 DATA COLLECTION METHOD

The study relied on secondary data. The data used for calculating the ratios was obtained from the annual accounts of the affected enterprises.

3.5 DATA ANALYSIS

Various ratios for measuring performance were calculated for both the experimental and the control groups for the period 1996-2001. For each of the sampled enterprise, the following profitability ratios were computed;

i. Return on Equity (ROE) $= \dfrac{\text{Net Income}}{\text{Average Equity}}$

ii. Return on (ROA) $= \dfrac{\text{Net Income}}{\text{Average total assets}}$

/N-, *yf?*

A mean and standard deviation for each ratio was computed for the period 1996-2001 for the sampled enterprises in both the experimental and the control groups. The ratios for both samples were compared to establish any differences in the means. The differences in the means observed were tested for significance using the t-test. The rate of change in return on equity and return on assets over the six year period for both the SOEs and the Privatized Enterprises was calculated and compared. The difference in the average rate of change in ROE and ROA was tested for significance using the t-test.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 INTRODUCTION

In this chapter, a discussion of the results is presented. The analysis involves the use of secondary data collected from the financial statements and reports of the enterprises sampled.

The data is available for 7 privatized enterprises and 7 SOEs. The data covers all the enterprises privatized by 1996 and listed at the Nairobi Stock Exchange.

The enterprises evaluated are grouped into SOEs and Privatized Enterprises as shown in appendix 1

Profitability ratios are calculated for the SOEs and the privatized enterprises for each year as shown in appendix 2 and appendix 3 respectively. The mean ratio for the period 1996 - 2001 both years inclusive for each enterprise and each year is calculated and is summarized in appendices 4 and 5.

The mean ratio for each of the 14 enterprises is extracted and grouped in SOEs and privatized enterprises. The mean and variance for each enterprise is computed and is shown in tables 2 and 3 while tables 4 and 5 summarize the mean and variance per year.

The rate of change in ROE and ROA for both the SOEs and the Privatized Enterprises is computed and is summarized in tables 6 and 7.

It was not possible to calculate the operating ratios since the data for SOEs was not available to the researcher as it is considered to be confidential by the enterprises' management.

The study objective is to determine whether privatized enterprises perform better than SOEs so the two-tail t-test is used to establish whether the differences in the means are significant.

The researcher is interested in finding out whether there is a significant difference in the performance of SOEs and privatized enterprises both positive and negative hence the two-tail test is the most suitable.

4.2 COMPANY CHARACTERISTICS

The SOEs are drawn from the power sector, insurance, housing development, commercial banking, regulator within the sugar industry and a regulator within the capital markets.

The privatized enterprises are drawn from companies listed at the Nairobi Stock Exchange under the commercial & services, finance & investments and industrial and allied security categories.

4.3 DATA PRESENTATION AND ANALYSIS

The return on equity for the privatized enterprises is higher than that of the SOEs as in table 2. The overall difference in the means for the two groups is approximately 84.31% with the privatized enterprises having a higher mean.

TABLE 2

MEAN RETURN ON EQUITY FOR EACH ENTERPRISE

STATE OWNED ENTERPRISES		PRIVATISED ENTERPRISES		% DIFFERENCE
CMA	0.082167	FEA	0.284167	
CBK	0.0035	HFCK	0.165167	
IDB	-0.066167	ICDC	0.1065	
KPLC	0.023333	KA	0.15565	
KRC	0.0213333	KCB	0.033	
KSB	0.093833	TPS	0.051333	
NHC	-0.014333	US	0.119683	
MEAN	**0.020524**	**MEAN**	**0.130786**	**84.31**
VARIANCE	**0.0030034**	**VARIANCE**	**0.006986**	

Table 3 shows the mean return on assets for each enterprise. The overall mean difference indicates that the return on assets for privatized enterprises is higher than that of SOEs by approximately 81.52%.

TABLE 3

MEAN RETURN ON ASSET FOR EACH ENTERPRISE

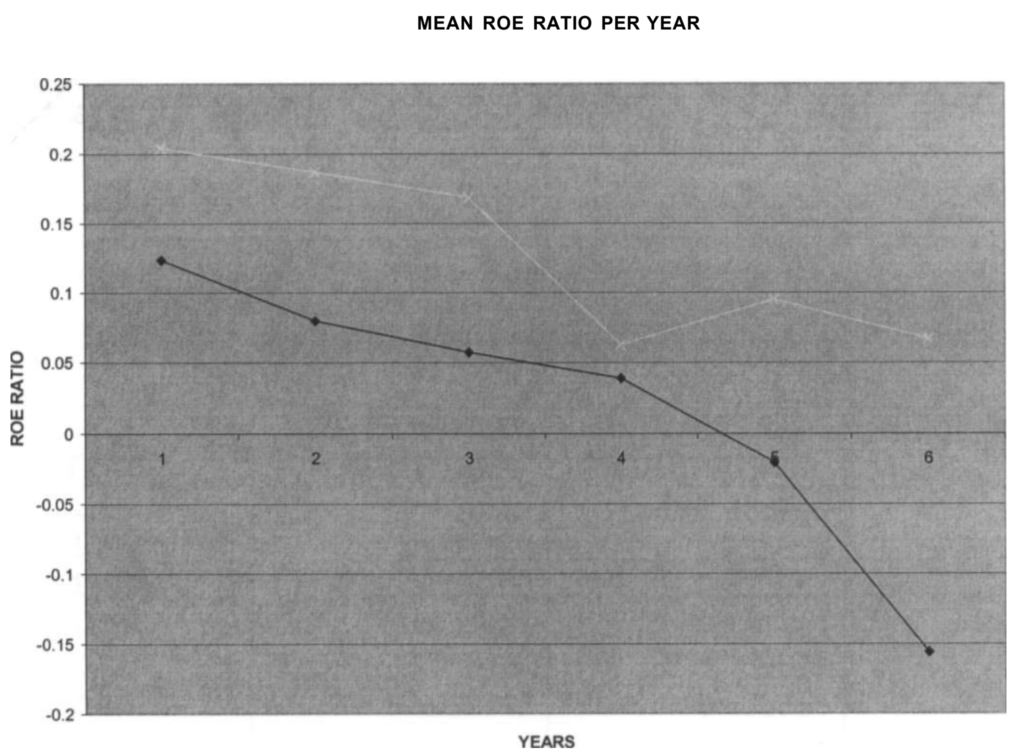
STATE OWNED ENTERPRISES		PRIVATISED ENTERPRISES		% DIFFERENCE
CMA	0.143833	FEA	0.268667	
CBK	0.0015	HFCK	0.253333	
IDB	-0.0175	ICDC	0.156167	
KPLC	0.078333	KA	0.176333	
KRC	0.012667	KCB	0.0124	
KSB	0.075167	TPS	0.157833	
NHC	-0.014333	US	0.4885	
MEAN	**0.039952**	**MEAN**	**0.216176**	**81.52**
VARIANCE	**0.003662**	**VARIANCE**	**0.021402**	

TABLE 2

MEAN RETURN ON EQUITY PER YEAR

YEAR	STATE OWNED ENTERPRISES	PRIVATIZED ENTERPRISES	% DIFFERENCE
1996	0.123429	0.204143	
1997	0.079714	0.187	
1998	0.057429	0.168714	
1999	0.039	0.062714	
2000	-0.020571	0.095129	
2001	-0.155857	0.067014	
MEAN	**0.020524**	**0.130786**	**84.31**
VARIANCE	**0.009719**	**0.003990**	

GRAPH 1



KEY: Series 1 shows the ROE Ratio for SOEs
Series 4 shows the ROE for Privatized Enterprises
Numbers 1, 2, 3, 4, 5 and 6 represent the years 1996-2001 respectively.

Table 4 and Graph 1 show the ROE for the two groups of enterprises per year over the six year period. The ROE for the Privatized Enterprises is higher than that of SOEs by approximately 84.31%.

Graph 1 shows that the ROE over the six year period decreased gradually for both the SOEs and the Privatized Enterprises. However, the ROE for Privatized Enterprises is higher than that of SOEs.

Table 5 and graph 2 shows the ROA for each group of enterprises per year. The ROA for Privatized Enterprises is higher than that of SOE by approximately 81.52%.

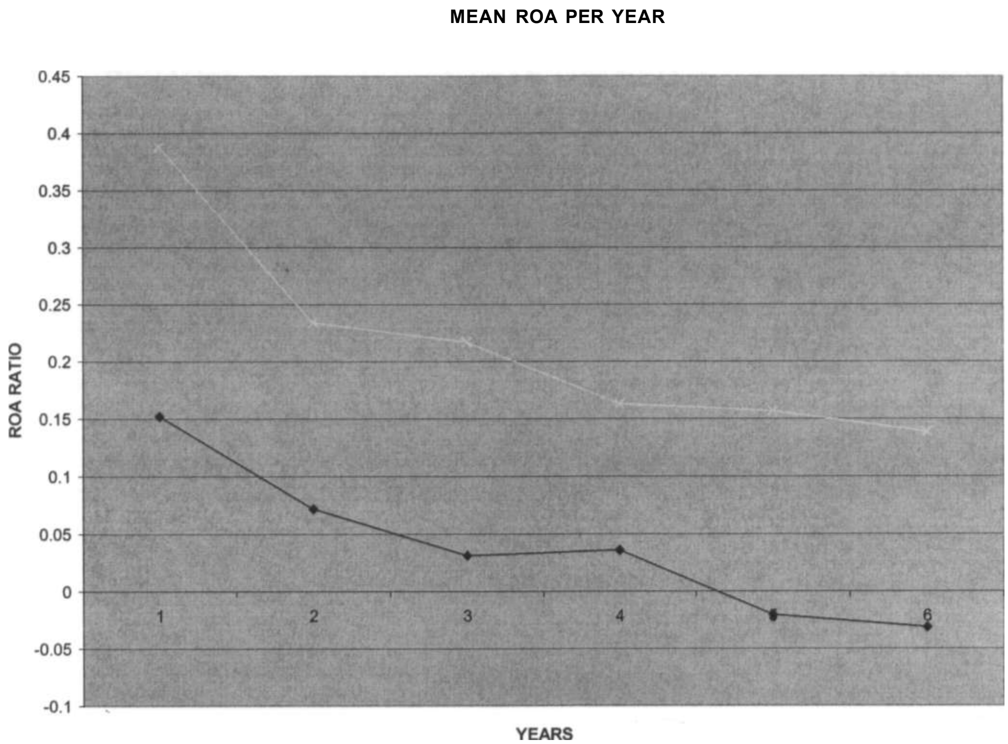
The ROA for both groups has declined gradually over the six year period. However, similar to the ROE trend, the ROA for Privatized Enterprises is higher than that of the SOEs.

TABLE 5

MEAN RETURN ON ASSET PER YEAR

YEAR	STATE OWNED ENTERPRISES	PRIVATIZED ENTERPRISES	% DIFFERENCE
1996	0.152286	0.388143	
1997	0.071857	0.233857	
1998	0.031286	0.216857	
1999	0.035857	0.162714	
2000	-0.020429	0.156571	
2001	-0.031143	0.138914	
MEAN	**0.039952**	**0.216176**	**81.52**
VARIANCE	**0.004486**	**0.008453**	

GRAPH 2



KEY: Series 1 shows the ROE Ratio for SOEs
Series 4 shows the ROE for Privatized Enterprises
Numbers 1, 2, 3, 4, 5 and 6 represent the years 1996-2001 respectively

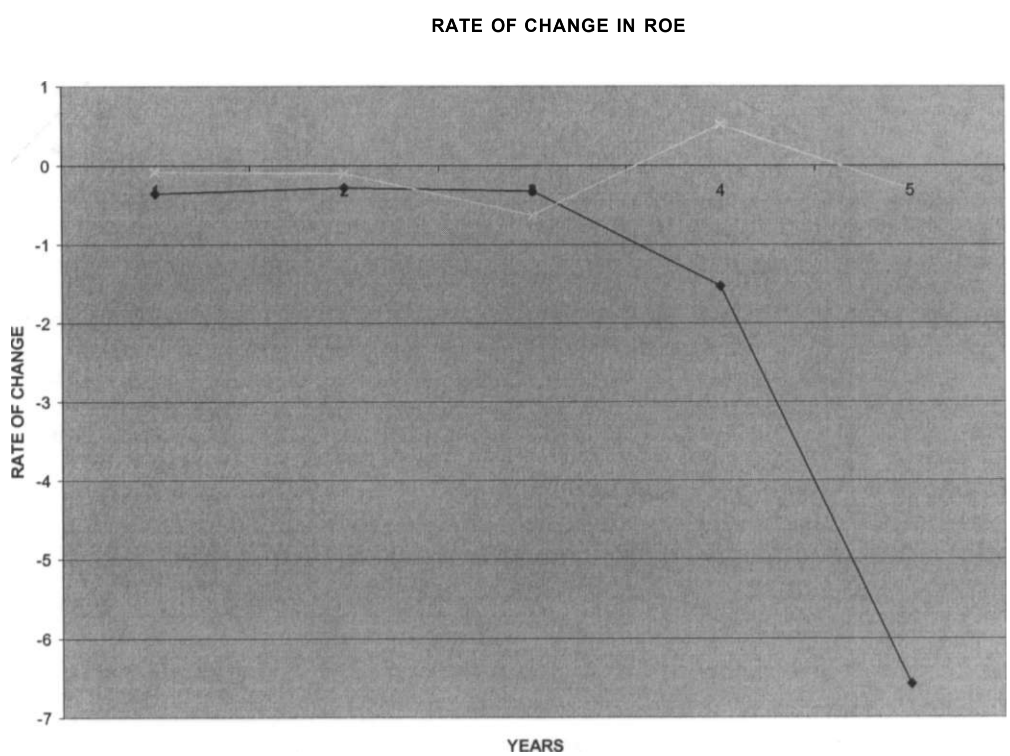
Table 6 and graph 3 shows the rate of change in return on equity. The rate of change in return on equity for the privatized enterprises is gradual with a slightly higher change between the years 1999 and 2000. The average rate of change in return on equity over the six year period is 11.77%. The average rate of change for SOEs is 181.17%, which is more than ten times the rate the return on equity for privatized enterprises changes. The highest rate of change is experienced between the years 1999 and 2001.

TABLE 2

RATE OF CHANGE IN RETURN ON EQUITY

PERIOD	STATE OWNED ENTERPRISES	PRIVATIZED ENTERPRISES
1996 -1997	-0.354171	-0.083975
1997 - 1998	-0.279562	-0.097786
1998 - 1999	-0.320900	-0.628282
1999 - 2000	-1.527461	0.516870
2000 - 2001	-6.576540	-0.295546
MEAN	**-1.811727**	**-0.117744**
VARIANCE	**7.369703**	**0.174134**

GRAPH 3



KEY: Series 1 - rate of change in ROE for SOEs
Series 4 - rate of change in ROE for Privatized Enterprises
Numbers 1,2,3,4,5 - periods 1996-1997,1997-1998, 1998-1999, 1999-2000, 2000-2001 respectively

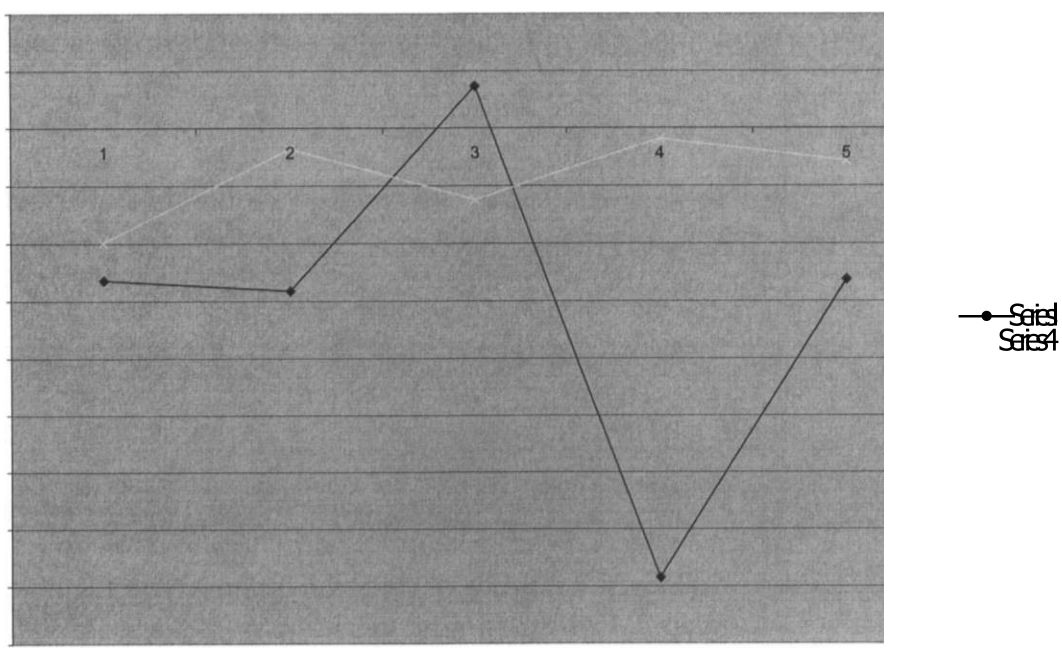
TABLE 2

RATE OF CHANGE IN RETURN ON ASSETS

PERIOD	STATE OWNED ENTERPRISES	PRIVATIZED ENTERPRISES
1996 -1997	-0.528144	-0.397498
1997 - 1998	-0.564607	-0.072694
1998 - 1999	0.146104	-0.249671
1999 - 2000	-1.568926	-0.037753
2000 - 2001	-0.524450	-0.112773
MEAN	**-0.608005**	**-0.174073**
VARIANCE	**0.376823**	**0.022064**

GRAPH 4

RATE OF CHANGE IN ROA



YEARS

KEY: Series 1 - rate of change in ROE for SOEs
Series 4 - rate of change in ROE for Privatized Enterprises
Numbers 1,2,3,4,5 - periods 1996-1997,1997-1998, 1998-1999, 1999-2000, 2000-2001 respectively

Table 7 and graph 4 shows the rate of change in return on assets. The rate of change in ROA for the SOEs is very volatile especially between the years 1997 and 2001. The average rate of change over the six year period is 60.80%. The average rate of change in return on assets for Privatized enterprises is 17.41%. The rate of change in return on assets for SOEs is more than three times the rate the return on assets for Privatized Enterprises changes. The rate of change of ROA for the Privatized Enterprises is gradual.

4.4 TESTS OF SIGNIFICANCE DIFFERENCE

According to the data presented in the tables 2, 3, 4 and 5, it is clear that the performance of privatized enterprises is different from that of SOEs

Graph 3 and 4 show that the rate of change in ROE and ROA is different for both groups.

It is important to confirm whether the difference is significant or not so there is need for hypothesis testing.

The researcher uses the two-tail hypothesis testing for the measures of profitability calculated to establish whether there is a significant difference in both directions i.e. positive or negative.

Any significant difference whether positive or negative will be of interest to various parties concern with privatization in Kenya hence the use of the two-tail test is justified.

The following procedure is used to test each of the measures calculated.

a. Statement of the hypothesis

Ho: There is no significant difference in the profitability of SOEs and Privatized enterprises

HA: There is a significant difference in the profitability of SOEs and Privatized enterprises

b. Set the decision criteria

Specify the level of significance

$$a = 0.05$$

Since it a t-test establish the degrees of freedom

d f = (n i + ri2 - 2)

Where

Pl 1 — number of SOEs

Pl2 - number of Privatized Enterprises

Determine the Critical t value

t lies between -2.179 and +2.179 (tests 1&2)

t lies between -2.228 and +2.228 (tests 3&4)

t lies between -2.306 and +2.306 (tests 5&6)

c. Determine the test statistic

X 1 - X 2

t = V I ((S i x S i) /nII + (S2 X S2) / n_2)

Where

t - Test statistic

XI - mean ratio of SOEs, X2 - mean ration of Privatized enterprises

51 - Standard deviation ratio of SOEs

52 - Standard deviation ratio of Privatized enterprises

PI 1 — number of SOEs, PI2 - number of Privatized enterprises

d. Statistical decision

If the computed test statistic is less or greater than the critical t value then reject the null hypothesis, otherwise we fail to reject.

e. Make a managerial decision

The managerial decision is based on the results observed.

The following is the summarized results of the tests of significance with details in appendices 6, 7 and 8.

Test 1: Return on Eqity

Ho: There is no significant difference in the return on equity of the SOEs and the Privatized enterprises

HA: There is a significant difference in the return on equity of SOEs and Privatized enterprises

t value =-2.914

Statistical decision: the t value is less than the critical t, therefore reject the null hypothesis

Managerial decision: there is a significant difference in the return on equity of SOEs and Privatized enterprises.

Test 2: Return on Assets

Ho: There is no significant difference in the return on equity of the SOEs and the Privatized enterprises

HA: There is a significant difference in the return on equity of SOEs and Privatized enterprises

t value = -2.945

Statistical decision: the t value is more than the critical t, therefore reject the null hypothesis

Managerial decision: there is a significant difference in the return on assets of SOEs and Privatized enterprises.

Test 3: ROE per year

Ho: There is no significant difference in the ROE per year of the SOEs and Privatized Enterprises

HA: There is a significant difference in the ROE per year of the SOEs and Privatized Enterprises

t = -2.307

Statistical decision: the t value is less than the critical t, therefore reject the null hypothesis.

Managerial decision: there is a significant difference in the ROE per year of the SOEs and Privatized Enterprises.

Test 4: ROA per year

Ho: There is no significant difference in the ROA per year of SOE and Privatized Enterprises

HA: There is a significant difference in the ROA per year of SOEs and Privatized Enterprises

t = -3.795

Statistical decision: the t value is less than the critical t, therefore reject the null hypothesis

Managerial decision: there is a significant difference in the ROA per year of SOEs and Privatized Enterprises.

<4

Test 5: Rate of change in ROE

Ho: There is no significant difference in the rate of change in the return on equity of SOE and Privatized Enterprises

HA: There is a significant difference in the rate of change in the return on equity of SOEs and Privatized Enterprises

t = 1.379

Statistical decision: the t value lies within the critical area and therefore we fail to reject the null hypothesis.

Managerial decision: there is no significant difference in the rate of change in the return on equity of SOEs and Privatized Enterprises.

Test 6: Rate of change in ROA

Ho: There is no significant difference in the rate of change in the return on assets of SOE and Privatized Enterprises

HA: There is a significant difference in the rate of change in the return on assets of SOEs and Privatized Enterprises

t = 1.536

Statistical decision: the t value lies within the critical area and therefore we fail to reject the null hypothesis.

Managerial decision: there is no significant difference in the rate of change in the return on assets of SOEs and Privatized Enterprises.

4.5 SUMMARY OF FINDINGS

The analysis of data in the tables and graphs discussed in the previous section show that the Privatized Enterprises perform better than the SOEs over the six year period. The performance is higher by more than 80%. This difference is significant as proven by the test of significance carried out.

The researcher can, therefore, conclude that the Privatized Enterprises have a significantly higher return on shareholder's wealth than the SOEs over the six year period.

However, although the profitability of Privatized Enterprises is better than that of SOEs, there is a general decline in profitability for both groups of enterprises. This can be explained by the economic depression experienced in Kenya and in other countries worldwide over the last few years.

The return on equity of SOEs decreases at an average rate of 181.17% compared to the average rate of change in Privatized Enterprises of 11.77%. The return on assets for the SOEs decreases at a rate of 60.80% compared to the rate of change for Privatized Enterprises of 17.41%. Though the rate of change for the SOEs is more than ten times higher than that of Privatized Enterprises, the tests of significance prove that the difference is not significant.

It is clear from graphs 3 and 4 that the rate of change for the Privatized Enterprises is more gradual than the SOEs suggesting that the Privatized Enterprises are more stable than the SOEs even as the country experiences economic depression.

This would imply that the effects of economic conditions have a negative impact on the shareholders' wealth of both SOEs and the Privatized Enterprises. This impact results in the decline of the return on equity over the six year period. However, the SOEs are affected more than the Privatized Enterprises because the rate of decline in return on equity for the SOEs is more than ten times higher the rate of Privatized Enterprises. This suggests that privatization can act as a cushion against economic conditions.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

On the basis of the data analysis and findings in chapter four, it is evident that Privatized Enterprises have a higher return on shareholders' wealth than the SOEs by more than 80%, a difference which is significant. The return on equity decreases for both the SOEs and the Privatized Enterprises over the six year period. However, the rate of decrease for the SOEs is more than ten times higher than that of Privatized Enterprises. This supports the findings that private ownership is more beneficial to an economy and society than public ownership (Bogdanovicius, 2000)

The higher profitability of the Privatized Enterprises supports the privatization policy. This agrees with other research findings done in Kenya. Odondi (1998) concluded that the performance of firms improve after privatization. Ogeto (1994) concluded that the performance of privately owned enterprises is 100% better than the public enterprises.

However, since there is no significant difference in the rate of change in the return on shareholder's wealth for the SOEs and the Privatized Enterprises, it would imply that privatization may address part of the microeconomic environment but does not have full control over certain macroeconomic factors.

5.2 IMPLICATION OF THE STUDY

Theoretically, private ownership brings greater efficiency and more rapid growth. This theory is based on the fact that economic agents respond better to price incentives and signals in general.

The key objective of privately owned enterprises is to maximize the shareholders' wealth resulting in higher profitability.

The superior profitability can be attributed to the pricing of goods and services on the basis of commercial rather than a social considerations and the absence of political and bureaucratic constraints.

This, therefore, implies that privatization of SOEs can lead to improvement in their profitability. However, the effects of the macroeconomic environment are not significantly different for the SOEs and the Privatized Enterprises.

5.3 RECOMMENDATIONS

Privatization should not be taken in isolation but viewed as an integral part of economic liberalization. There is need to have the necessary institutional framework in place and a supportive macroeconomic environment should be developed before privatization is undertaken.

The privatization process in Kenya is seen to have failed to achieve the targeted goal of bringing good corporate governance. This could be the reason why the new NARC government seems to have suspended the privatization process.

Mark Agutu in his article *"State firms' sale faulted"* in the *Daily Nation* reported that "The Permanent Secretary in charge of governance and ethics, Mr. John Githongo, and Planning minister Anyang' Nyong'o have maintained that the government needed time to restructure the parastatals before considering their sale."

It is, therefore, evident that the government is not in a hurry to privatize SOEs earmarked earlier and the process will take longer than earlier envisaged.

The researcher recommends that while the government restructures the parastatals, it should also create the right conditions for privatization.

These conditions include open trade regime, a suitable and predictable environment for business, and a well-developed institutional and regulatory capacity.

5.4 LIMITATIONS OF THE STUDY

The following limitations should be taken into considerations when using the findings of this study;

1. The financial ratios used relied on the financial statements which are subject to variations in the accounting methods used and to manipulations of accounting data such as "window dressing"
2. The data used is assumed to be normally distributed, which is a theoretical distribution and the assumption may not always hold.

3. Obtaining data for the SOEs was difficult as the financial statements and most of the financial information is considered to be confidential.
4. The study concentrated more on the analysis of profitability and did not consider factors like technology, size of the firm, type of business and location of the firm.
5. Due to the limitation of availability of data and information, it was not possible to evaluate the effects of privatization on employment and capital investments.
6. The privatized enterprises were not privatized at the same time neither are all the enterprises in the sample operating within the same industry hence the comparison is not absolutely free from bias.

5.5 SUGGESTIONS FOR FURTHER RESEARCH

The study analyzed enterprises from different industries, therefore, there is need to study privatized enterprises and SOEs within the same industry to establish the difference in performance.

The study concentrated on the privatized enterprises that are listed at the Nairobi Stock Exchange. Future research can study firms that not listed especially within the agricultural sector.

This study compared the financial performance of SOEs and Privatized Enterprises over a six year period after privatization, it is important to compare the performance of SOEs and Privatized Enterprises before and after privatization to establish the impact of privatization on financial performance.

Privatization aims at improving the overall performance of an enterprise, further research is necessary to establish the impact of privatization on the overall economic performance of different sectors of the country, political environment and the behavioral aspects within the economy.

APPENDIX 1

STATE OWNED ENTERPRISES

Capital Markets Authority	CMA
Consolidated Bank of Kenya	CBK
Industrial Development Bank	IDB
Kenya Power & Lighting Co Ltd	KPLC
Kenya Reinsurance Company	KRC
Kenya Sugar Board	KSB
National Housing Corporation	NHC

PRIVATIZED ENTERPRISES

Firestone East Africa Ltd	FEA
Housing Finance Co. Ltd	HFC
ICDC Investments Company	ICDC
Kenya Airways Ltd	KA
Kenya Commercial Bank Ltd	KCB
Tourism Promotion Services Ltd (Serena)	TPS
Uchumi Supermarkets Ltd	US

APPENDIX 3

ROE AND ROA FOR SOEs FOR THE PERIOD 1996-2201

Year	1996	1997	1998	1999	2000	2001	Average
	Capital Markets Authority						
ROE	0.462	0.139	-0.131	0.106	-0.153	0.07	**0.082167**
ROA	0.782	0.202	-0.209	0.158	-0.256	0.186	**0.143833**
	Consolidated Bank of Kenya						
ROE	0.026	0.024	0.014	0.015	-0.042	-0.016	**0.0035**
ROA	0.009	0.008	0.005	0.005	-0.014	-0.004	**0.0015**
	Industrial Development Bank						
ROE	0.027	0.029	0.006	0.007	-0.048	-0.418	**-0.06617**
ROA	0.014	0.019	0.01	0.006	-0.036	-0.118	**-0.0175**
	Kenya Power and Lighting Co. Ltd						
ROE	0.248	0.224	0.171	0.116	-0.085	-0.534	**0.023333**
ROA	0.181	0.177	0.144	0.031	-0.003	-0.06	**0.078333**
	Kenya Reinsurance						
ROE	0.027	0.022	0.021	-0.059	0.041	0.076	**0.021333**
ROA	0.016	0.011	0.01	-0.031	0.023	0.047	**0.012667**
	Kenya Sugar Board						
ROE	0.084	0.129	0.352	0.106	0.147	-0.255	**0.093833**
ROA	0.074	0.095	0.29	0.1	0.147	-0.255	**0.075167**
	National Housing Corporation						
ROE	-0.01	-0.009	-0.031	-0.018	-0.004	-0.014	**-0.01433**
ROA	-0.01	-0.009	-0.031	-0.018	-0.004	-0.014	**-0.01433**

APPENDIX 3

ROE AND ROA FOR PRIVATIZED ENTERPRISES FOR THE PERIOD 1996-2001

Year	1996	1997	1998	1999	2000	2001	Average
	Firestone Co. Ltd						
ROE	0.153	0.556	0.479	0.21	0.145	0.162	**0.284167**
ROA	0.692	0.123	0.104	0.296	0.193	0.204	**0.268667**
	Housing Finance Company of Kenya						
ROE	0.456	0.39	0.266	0.048	0.038	-0.207	**0.165167**
ROA	0.48	0.349	0.292	0.084	0.066	0.249	**0.253333**
	ICDC Investments Ltd						
ROE	0.341	0.028	0.035	0.028	0.11	0.097	**0.1065**
ROA	0.285	**0.218**	0.086	0.073	0.146	0.129	**0.156167**
	Kenya Airways						
ROE	0.272	0.116	0.146	0.157	0.0399	0.203	**0.15565**
ROA	0.342	0.158	0.176	0.128	0.146	0.108	**0.176333**
	Kenya Commercial Bank						
ROE	0.211	0.17	0.024	-0.176	-0.055	0.024	**0.033**
ROA	0.062	0.039	0.018	-0.024	-0.027	0.0064	**0.0124**
	Tourism Promotion Services						
ROE	-0.099	0.012	0.112	0.092	0.088	0.103	**0.051333**
ROA	0.208	0.19	0.184	0.115	0.121	0.129	**0.157833**
	Uchumi Supermarkets						
ROE	0.095	0.037	0.119	0.08	0.3	0.0871	**0.119683**
ROA	0.648	0.56	0.658	0.467	0.451	0.147	**0.4885**

APPENDIX 1

ROE PER ENTERPRISE PER YEAR FOR SOEs

YEAR	1996	1997	1998	1999	2000	2001	Average
CMA	0.462	0.139	-0.131	0.106	-0.153	0.07	**0.082167**
CBK	0.026	0.024	0.014	0.015	-0.042	-0.016	**0.0035**
IDB	0.027	0.029	0.006	0.007	-0.048	-0.418	**-0.06617**
KPLC	0.248	0.224	0.171	0.116	-0.085	-0.534	**0.023333**
KRC	0.027	0.022	0.021	-0.059	0.041	0.076	**0.021333**
KSB	0.084	0.129	0.352	0.106	0.147	-0.255	**0.093833**
NHC	-0.01	-0.009	-0.031	-0.018	-0.004	-0.014	**-0.01433**
Average	**0.123429**	**0.079714**	**0.057429**	**0.039**	**-0.02057**	**-0.15586**	**0.020524**

ROA PER ENTERPRISE PER YEAR FOR SOEs

YEAR	1996	1997	1998	1999	2000	2001	Average
CMA	0.782	0.202	-0.209	0.158	-0.256	0.186	**0.143833**
CBK	0.009	0.008	0.005	0.005	-0.014	-0.004	**0.0015**
IDB	0.014	0.019	0.01	0.006	-0.036	-0.118	**-0.0175**
KPLC	0.181	0.177	0.144	0.031	-0.003	-0.06	**0.078333**
KRC	0.016	0.011	0.01	-0.031	0.023	0.047	**0.012667**
KSB	0.074	0.095	0.29	0.1	0.147	-0.255	**0.075167**
NHC	-0.01	-0.009	-0.031	-0.018	-0.004	-0.014	**-0.01433**
Average	**0.152286**	**0.071857**	**0.031286**	**0.035857**	**-0.0204**	**-0.0311**	**0.039952**

APPENDIX 1

ROE PER ENTERPRISE PER YEAR FOR PRIVATIZED ENTERPRISES

YEAR	1996	1997	1998	1999	2000	2001	Average
FC	0.153	0.556	0.479	0.21	0.145	0.162	**0.284167**
HFCK	0.456	0.39	0.266	0.048	0.038	-0.207	**0.165167**
ICDC	0.341	0.028	0.035	0.028	0.11	0.097	**0.1065**
KA	0.272	0.116	0.146	0.157	0.0399	0.203	**0.15565**
KCB	0.211	0.17	0.024	-0.176	-0.055	0.024	**0.033**
TPS	-0.099	0.012	0.112	0.092	0.088	0.103	**0.051333**
US	0.095	0.037	0.119	0.08	0.3	0.0871	**0.119683**
Average	**0.204143**	**0.187**	**0.168714**	**0.062714**	**0.095129**	**0.067014**	**0.130786**

ROA PER ENTERPRISE PER YEAR FOR PRIVATIZED ENTERPRISES

YEAR	1996	1997	1998	1999	2000	2001	Average
FC	0.692	0.123	0.104	0.296	0.193	0.204	**0.268667**
HFCK	0.48	0.349	0.292	0.084	0.066	0.249	**0.253333**
ICDC	0.285	0.218	0.086	0.073	0.146	0.129	**0.156167**
KA	0.342	0.158	0.176	0.128	0.146	0.108	**0.176333**
KCB	0.062	0.039	0.018	-0.024	-0.027	0.0064	**0.0124**
TPS	0.208	0.19	0.184	0.115	0.121	0.129	**0.157833**
US	0.648	0.56	0.658	0.467	0.451	0.147	**0.4885**
Average	**0.388143**	**0.233857**	**0.216857**	**0.162714**	**0.156571**	**0.138914**	**0.216176**

APPENDIX 6

TEST OF SIGNIFICANCE FOR ROE

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	*Variable 2*
Mean	0.020523714	0.130785714
Variance	0.003033795	0.006985662
Observations	7	7
Pooled Variance	0.005009728	
Hypothesized Mean Difference	0	
df	12	
t Stat	2.914424424	
P(T<=t) one-tail	0.006487002	
t Critical one-tail	1.782286745	
P(T<=t) two-tail	0.012974004	
t Critical two-tail	2.178812792	

TEST OF SIGNIFICANCE FOR ROA

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	*Variable 2*
Mean	0.039952429	0.216176143
Variance	0.003662513	0.021402236
Observations	7	7
Pooled Variance	0.012532375	
Hypothesized Mean Difference	0	
df	12	
t Stat	2.944975493	
P(T<=t) one-tail	0.006129064	
t Critical one-tail	1.782286745	
P(T<=t) two-tail	0.012258129	
t Critical two-tail	2.178812792	

APPENDIX 1

TEST OF SIGNIFICANCE FOR ROE PER YEAR

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	*Variable 2*
Mean	0.020524	0.130785667
Variance	0.009719059	0.003990377
Observations	6	6
Pooled Variance	0.006854718	
Hypothesized Mean Difference	0	
df	10	
t Stat	2.306696177	
P(T<=t) one-tail	0.0218764	
t Critical one-tail	1.812461505	
P(T<=t) two-tail	0.0437528	
t Critical two-tail	2.228139238	

TEST OF SIGNIFICANCE FOR ROA PER YEAR

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	*Variable 2*
Mean	0.039952333	0.216176
Variance	0.004485818	0.008453218
Observations	6	6
Pooled Variance	0.006469518	
Hypothesized Mean Difference	0	
df	10	
t Stat	3.794800109	
P(T<=t) one-tail	0.001757812	
t Critical one-tail	1.812461505	
P(T<=t) two-tail	0.003515624	
t Critical two-tail	2.228139238	

APPENDIX 1

TEST OF SIGNIFICANCE FOR RATE OF CHANGE IN ROE

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	*Variable 2*
Mean	-1.8117268	-0.1177438
Variance	7.369703577	0.174134049
Observations	5	5
Pooled Variance	3.771918813	
Hypothesized Mean Difference	0	
df	8	
t Stat	1.379106749	
P(T<=t) one-tail	0.102593565	
t Critical one-tail	1.85954832	
P(T<=t) two-tail	0.20518713	
t Critical two-tail	2.306005626	

TEST OF SIGNIFICANCE FOR RATE OF CHANGE IN ROA

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	*Variable 2*
Mean	-0.6080046	-0.17407288
Variance	0.376823039	0.022064328
Observations	5	5
Pooled Variance	0.199443683	
Hypothesized Mean Difference	0	
df	8	
t Stat	1.536318496	
P(T<=t) one-tail	0.081506365	
t Critical one-tail	1.85954832	
P(T<=t) two-tail	0.16301273	
t Critical two-tail	2.306005626	

BIBLIOGRAPHY:

Agutu, M. (2003), "State firms' sale faulted", *Daily Nation,* June 19, 2003, pp 20

Aseto, 0. and Okelo, J. (1997), Privatization in Kenya, Basic Books (Kenya) Ltd, Nairobi, Kenya

Bogdanovicius, A. (2000), "Rethinking Privatization Methods", *The Free Market,* 2000 No 2

Boubakri, N. and Cosset, J. (2000), "The financial and operating performance of newly privatized firms: evidence from developing countries", *Journal of Finance,* 53 (3): ppl081-1110.

Erbetta, F. and Fraquelli, G. "Privatization and Productivity: A Post-Announcement Effect", 29th Annual Conference of the E.A.R.I.E. Madrid 5th - 8th September 2002.

Durchslag, S., Puri, T., Rao, A. (1994) "The promise of infrastructure privatization", *The McKinsey Quarterly,* Vol. 17 No. 5, pp 643-657

Grossman S. J. and Hart O. D. (1986), "The costs and benefits of ownership: a theory of vertical and lateral integration", *Journal of Political Economy,* 94(4), pp 691-719

Heracleous, L. (1999), "Privatization: Global trends and implications of the Singapore experience", *The International Journal of Public Sector Management,* Vol. 12 No 5, pp 432-444

Kay, J. A. and Thompson, D. J. (1986), "Privatization: a policy in search of a rationale", *The Economic Journal,* 96, pp 18-32

Kikeri, S. Nellis, J. and Shirley, M. (1994), "Privatization: lessons from market economies", *World Bank Research Observer,* 9: pp 241-272

Odondi, K. 0. (1998), An analysis of the financial and operating performance of the newly privatized enterprises in Kenya, an unpublished MBA research project

Ogeto, D. M. (1994), Financial performance of public enterprises and privately owned firms compared, an unpublished MBA research project

Ramamurti, R. (1991), Privatization and control of State-Owned Enterprises. EDI Development Studies, The World Bank, Washington, D.C.

Ross, Westerfield and Jaffe (2000), Corporate Finance, 6th Edition, McGraw-Hill Inc, U.S.A

Savas, E. S. (1989), Privatization: The Key to better Government. Tata McGraw-Hill Publishing Company Ltd, New Delhi.

Vickers, J. and Yarrow, G (1988), Privatization: an economic analysis. MIT Press, Cambridge, Massachusetts

Vining, A. R. and Boardman, A. E. (1992), "Ownership versus competition: Efficiency in public enterprises", *Public Choice,* Vol. 73, pp 205-239

Wortzel, H. V. and Wortzel, L. H. (1989), "Privatization: not the only answer", *World Development,* Vol. 17 No. 5, pp 633-641