The Effect of Privatization on Wages and Job Satisfaction: the Case of Ghana

Kofi Fred Asiedu

Promotoren: Prof. Dr. H. Folmer
Hoogleraar in de Economie van Consumenten en Huishoudens
Wageningen Universiteit

Prof. Dr. W. J. M. Heijman
Hoogleraar in de Regionale Economie
Wageningen Universiteit

Commissieleden:

Mw. Prof. Dr. A. Niehof (Wageningen Universiteit)
Prof. Dr. G. Antonides (Wageningen Universiteit)
Dr. N. Heerink (Wageningen Universiteit)
Prof. Dr. C. Schweigman (Rijksuniversiteit Groningen)

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In this thesis, we examine the impact of privatization on wages and job satisfaction in selected urban-based enterprises in Ghana. The fear and anxiety of workers in state-owned enterprises (SOEs) and recent developments in the corporate world have necessitated the need to examine wages and job satisfaction of workers in various enterprises closely. Decades of economic mismanagement and bad policies in Ghana, beginning in the 1970s led to a steady deterioration of the economy, with the situation reaching a crisis point in the early 1980s. To address the deteriorating situation, policy reforms were initiated in the latter part of 1980s. The main instruments used for the public sector were liberalization of the economy and privatization of state-owned enterprises.

Most studies of privatization in Ghana put relatively little emphasis on the labor market. We argue that privatization changes the objectives of a firm from objectives formulated by the state to more narrow, profit oriented ones. We also show that the impact of privatization on wages and job satisfaction is theoretically ambiguous. If the state puts relatively little weight on profit maximization but focuses on welfare instead, wages and satisfaction levels may be higher. If transfer payments in the form of subsidies from the government to SOEs are high, SOEs can afford to pay higher wages and provide better work conditions than privatized enterprises (PEs).

Using data from 300 workers selected from 6 SOEs and 7 PEs, we find that PEs pay higher wages than SOEs. In terms of partial satisfaction levels (work safety, job security and training opportunities), work safety is found not to have improved with privatization. The effects of privatization in Ghana are such that a number of enterprises that have survived have done so by restructuring to reduce cost and to be competitive thus affecting investment in work place safety. Compared with PEs, work safety is perceived as better in SOEs. Job security is found to increase with privatization. In PEs, workers report to be more secure with their jobs than those in SOEs. A possible explanation could be the basic problem in SOEs, where too many workers, especially administrative and clerical level staff are employed. Consequently, the transition from an SOE to a PE is seen as a threat to job security. The results also show that both general and specific training opportunities have not improved with privatization. SOEs offer more training, especially general training than PEs.

The hypothesis that there is a discernible increase in overall job satisfaction as a result of privatization cannot be confirmed by our study. The effect of privatization on overall job satisfaction could be due to a mix of positive and negative influences mentioned above, which together lead to statistically insignificant impacts at all degrees of privatization. Thus, our study finds no direct relationship between privatization and overall job satisfaction.

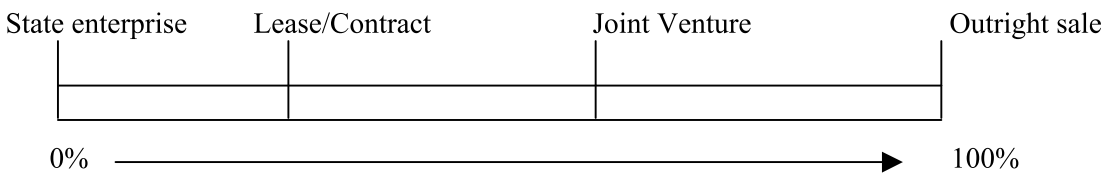
CHAPTER 1

INTRODUCTION

1.1 Privatization as a Policy Option

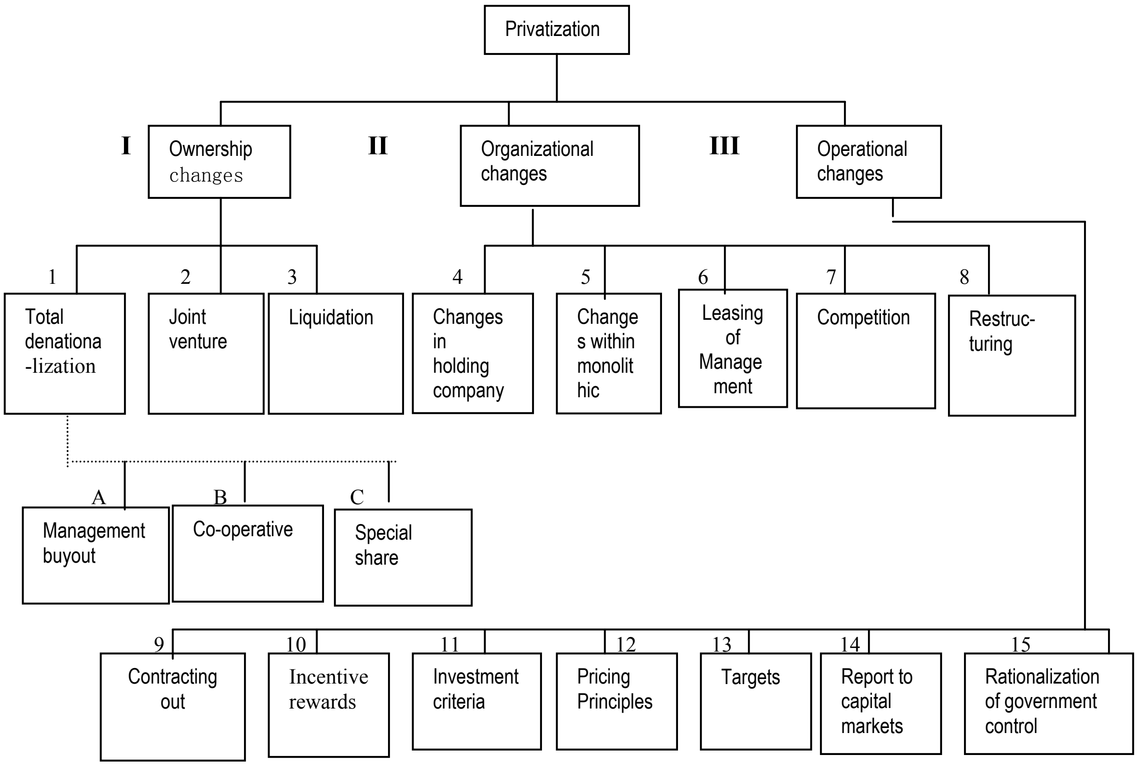
The concept of privatization has drawn much attention in the past decade, as governments over the world divest enterprises they previously owned. The countries involved range from such mature industrialized economies as the United Kingdom, France, and the Netherlands to struggling economies such as Sri Lanka, Ghana and the Zambia. The main goal of privatization is to loosen the ties that bind enterprises to the apparatus of government. Jones (1985) writes that the term privatization includes everything from mixed public-private hybrids (for example, management contract or leasing) to anything that makes public entities behave more like private ones – such as incentive systems. It also includes anything that makes private enterprises behave in practice more like they are supposed to behave in theory (see Cook and Kirkpatrick, 1988; Shirley and Nellis, 1991). Other authors (for example, Lin *et al.,*1998) define privatization on a continuous scale (see Figure 1.1), ranging from 0 to 100 percent, where an enterprise starts as government owned, move to lease or contract, then to joint venture and eventually to outright sale.

Figure 1.1: Degree of Privatization



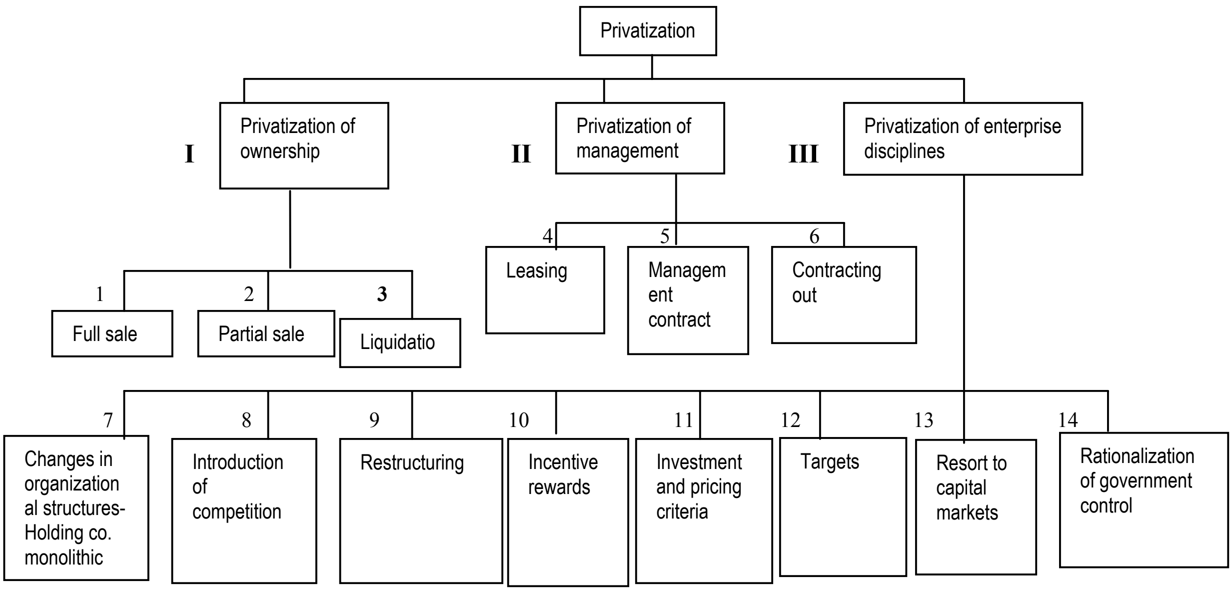
Ramanadham (1991), defines privatization in terms of policy option and content. Figures 1.2 and 1.3 capture Ramanadham's definitions. Thus, to privatize means the government divesting itself of a company it owns either by sale to the private sector or by any other arrangements. In the broader sense, privatization means relying less on government to meet peoples' needs for goods and services and more on private institutions such as the market place to do so.

Figure: 1.2 Privatization: The Policy Option



Source: Reprinted with permission from Ramanadham (1991)

Figure 1.3 Privatization: The content



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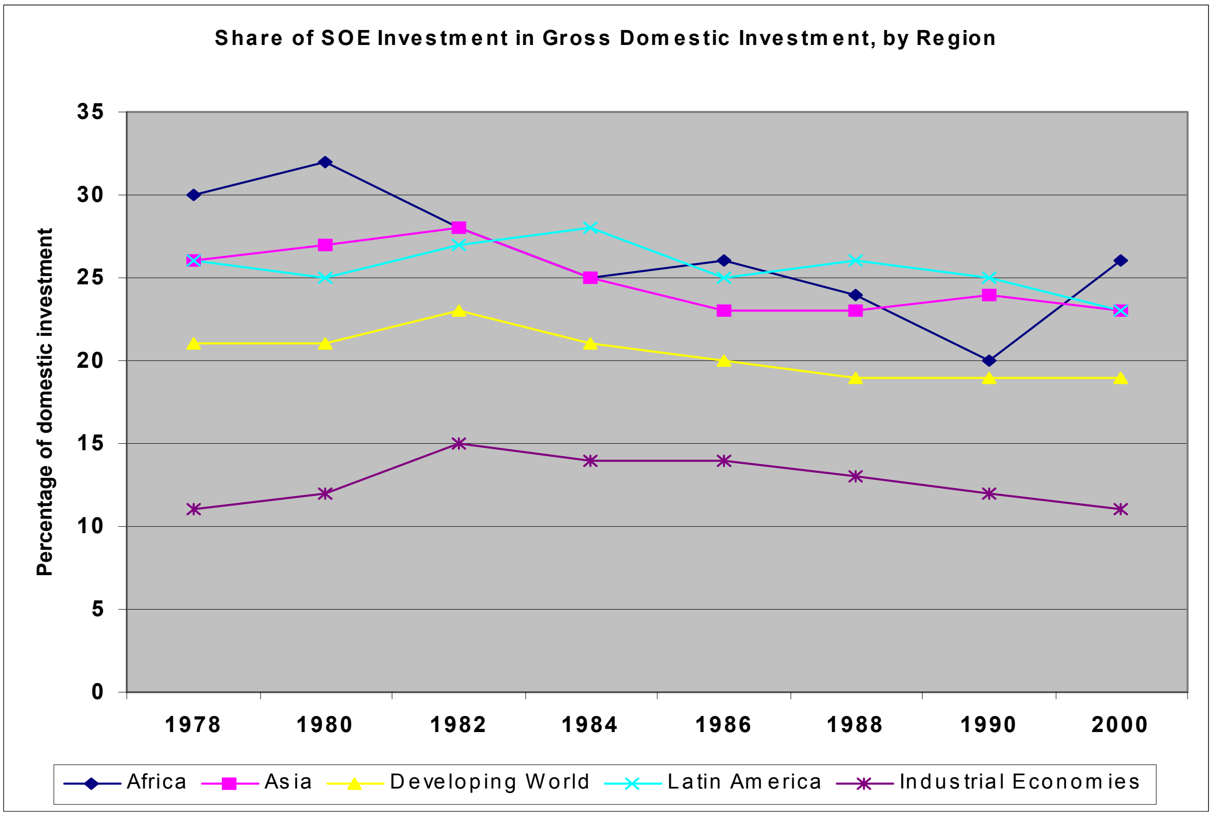
Several attempts were made in the late 1980s by governments in Africa to deregulate or divest their economies from direct state ownership (see for example, Shackleton, 1986; Kay and Thompson, 1986; and Stigler, 1971). This was in response to increasing attacks from neoclassical economists concerning the distortionary effects of government control and the apparent failure of its intervention (Galal *et al.,* 1996). Thus, the 1990s saw privatization and liberalization becoming a viable option for state reforms, especially in countries where governments' reach were overextended.

The regulatory activities of African governments, especially in enterprise development grew considerably in the 1970s and 1980s. This was a period when import substituting industrialization and the creation of large numbers of public enterprises to provide jobs and generate needed capital for industrial growth were at the forefront of both the economic and political agenda. Figure 1.4 shows the share of state owned enterprises (SOEs) in terms of GDP in Africa and other regions from the late 1970s to the late 1990s. The share of SOEs in terms of GDP in Africa appear to have fallen through the 1990s only to rise again just before 2000 whilst it remained relatively flat in the other regions.

Figure 1.4: The state-owned enterprise share of gross domestic investment from the1980s

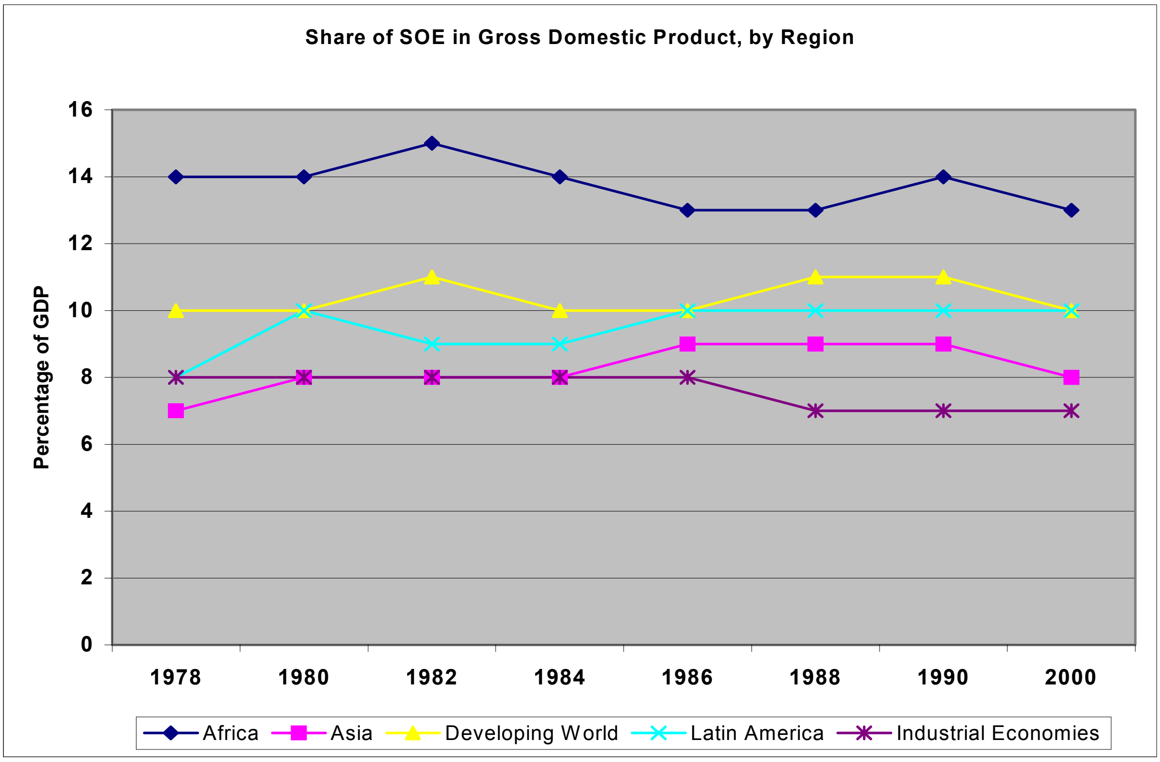


Source: World Bank (1995)

This high level of state involvement in the economy in African countries has led to structural imbalances in the form of high unemployment, bloated public sector and balance of payment deficits. To correct these imbalances, African governments, with assistance from the World Bank (WB) and the International Monetary Fund (IMF) have adopted structural adjustment programs (SAPs) as tools to realign their macroeconomics. Privatization, a component of SAPs, has been one of such tools used and is aimed at reducing the prevalent role of the state in economic development, encouraging private sector participation in the economy and ultimately improving the living conditions of workers.

However, despite more than a decade of privatization efforts (supported by the IMF and the World Bank), the state sector still accounts for nearly as large a share of economic activity in most of Africa as it did 20 years ago (see Figure 1.5). Judging from Figures 1.4 and 1.5, one can conclude that state investments, (as shown by the share of SOEs investments in GDI) is not matched by output (as shown by the share of SOEs in GDP). This is reflected in the inverse relationship between investment and contribution of SOEs to GDP in Africa (see Figures 1.4 and 1.5).

Figure1.5: The state-owned enterprise share of gross domestic product has remained about constant and very high in Africa.



Source: World Bank (1995)

The trends in privatization, including its successes and failures have been reviewed by many researchers including Heald and Steel (1982); Vernon-Wortzel *et al*. (1989); Young (1986); Savas (1987; 1977); Vickers and Yarrow (1988), Jackson and Palmer (1988) Mitchell (1989), Bos (1991) and Shirley (1997). However, the impact of privatization on the various sectors of an economy remains inconclusive. This inconclusiveness stems partly from problems of data availability and methodological problems in the developing and advanced economies, respectively. In spite of the presence of large public sectors in most African countries, especially sub-Saharan Africa (SSA) empirical knowledge of some critical issues in the sector is lacking, particularly the impact of privatization on the economy remain unanswered. Critical questions of privatization that needs addressing are, for example:

1. How does privatization affect employment conditions of workers?
2. How does privatization affect communities that hitherto enjoyed services of SOEs?
3. Does privatization cause expropriation of workers?
4. Does privatization improve indigenous entrepreneurship?

Lack of sufficient answers to these questions and the dismal results of privatization in certain countries in SSA have caused many researchers to question the role of such programs in addressing structural imbalances. The situation, therefore, has given rise to a renewed debate between those who emphasize the welfare gains from improved competition as a result of private participation in the economy and those who stress the need for restructuring and maintaining state enterprises (Kanjin and Jazdowska, 1995; Cook and Kirkpatrick, 1995). Some researchers have even argued that structural adjustment programs as a whole remain deeply flawed in Africa (see Sachs and Warner, 1996). They contend that the International Monetary Fund (IMF) and the World Bank are so obsessed with price stability that they do not think about other issues in the economy, especially, the complex nature of the impact such policies on the socioeconomic livelihoods of the people (see for example, Sachs and Warner, 1996; and Killick, 2000).

In SSA, therefore, the state and market remain at odds. Private initiatives are stifled by a legacy of antagonistic relations with the state (World Development Report, 1997). State enterprises, often enjoying monopoly privileges, dominate the economic sphere that could be undertaken by the competitive markets. Most of these state enterprises are often inefficient and block private dynamism by imposing an unmanageable fiscal and administrative burden on the rest of the public sector (see World Development Report, 1997). Workers in the public sector therefore suffer untold hardships in terms of low wages, worsening work conditions and increasing poverty.

The question arising then is how can the state overcome these problems and improve the welfare of workers? Recent economic performance of countries such as China, Poland, Botswana and the Czech

Republic provides some evidence that relaxing government's grip in the form of privatization and deregulation could yield large dividends to the economy and workers in particular. Recent research on privatization and welfare in developed and transitional economies have also revealed that in general, *workers do not suffer welfare losses as a result of privatization* (Galal et al, 1996; Porta and Lopez-de-Silanes, 1997). What privatization actually creates is the emergence of a new private sector with the attendant reallocation of labor as people shift from less productive to the more productive enterprises under the influence of demand shocks, changes in incentives and new opportunities facing both enterprises and workers.

1.2 Privatization in Ghana

Decades of economic mismanagement and bad policies in Ghana, beginning in the 1970s led to a steady deterioration of the economy, with the situation reaching a crisis point in the early 1980s. The downward economic spiral resulted from a combination of poor domestic policies and adverse external events (World Bank, 1981). Large government deficits during the 1970s, induced in part by the need to support an inefficient parastatal sector and provide public sector employment, led to accelerating rates of inflation. The industrial SOEs were plagued by scarce managerial resources, over staffing, heavy dependence on imports, outmoded and ill-maintained equipment, and low-controlled prices in some cases, culminating to their low share of manufacturing in the GDP (see BMB report, 1985 Vol. 1 page 6)

The service sector was also affected by the crisis. The control of Ghana's transport and communication facilities, the production and management of electricity and water were by the state utility enterprises. Utility rates were low, and the revenue shortfalls were not totally covered by government subsidies. Funding for needed investment in maintenance and spare parts procurements were scarce. Over staffing and poor labor discipline further depleted financial resources resulting in Ghana's infrastructure badly deteriorating.

Most of the state owned enterprises that were expected to make profits were not even breaking-even. These firms covered their losses largely through arrears owned to the Government for the payment of taxes and social security contributions to other public enterprises, banks, and to local suppliers. Accumulated arrears in corporate income tax payments by SOEs, for example, totaled 14% of GDP in 1983 (see BMB Report 1985, 9.10).

The deteriorating economic situation and political instability also contributed to a serious brain drain in Ghana. The general scarcity of managerial and technical skills, compounded by SOEs not allowed to keep salaries and fringe benefits competitive with the private sector, further deteriorated the sector (BMB, 1985).

1.2.1 The public enterprises sector reforms

To address the deteriorating situation, policy reforms were initiated in the latter part of 1980s. The government, under its restructuring and privatization programs, began to initiate policies aimed at correcting the worsening economic crises. These programs included both monetary and fiscal policies. The main instruments used for the public sector were liberalization of the economy and privatization of state owned enterprises. The privatization program has been going on for over ten years, and evidence at the macro level to date indicates that the program is beginning to pay off.

However, labor adjustment remains one of the most sensitive aspects of privatization in Ghana. The lack of adequate severance policy has contributed to high cost of labor adjustment in Ghana. The extremely generous severance payments negotiated at the enterprise level have been a major blow to the privatization process. While these enterprise-level agreements allowed for flexibility at the firm level, they have led to protracted negotiation with government and created precedents for payment in future layoffs. The inability of the government to pay such generous benefit has caused further delays in privatizing other enterprises (see Box 1.0).

Box 1.0: Severance payment problems in Ghana

Poorly designed severance schemes for laid-off SOE workers can be difficult to implement and even threaten the entire labor retrenchment process. In Ghana, labor retrenchment was practically halted in the early 1990s by the government's inability to pay overly generous severance payments, which it had agreed to finance during collective bargaining (CB), with labor units. The problem lay not so much in strong unions as in the legal framework: Ghanaian legislation defines the general conditions for severance entitlements, but leaves the specific amounts to be determined by individual CBs between unions and SOEs. In the absence of well-defined limits, and since the managers of the SOEs were negotiating about the government's and not their own money, enterprise-by enterprise negotiations resulted in a broad range of entitlements and excessively high end-of service benefits.

In Ghana, severance payments in many SOEs are about 65% higher than in the private sector, with average payments estimated to be 52 months, or 4.3 years of base pay. The practice of paying redundant workers retirement benefits as well as severance payments added to the high cost of labor retrenchment. Retirement benefits averaged about 70 months of base pay (in some cases, about 70% higher than in the private sector). Between 1985 and 1991, end-of-service benefits grew to between US$1,423 and US$2,846 per worker, representing six or seven times Ghana's per capita GNP. The inability of many SOEs to finance severance payments led to a halt in the labor redundancy program-not to mention privatization.

The government has taken a number of steps to deal with the financing problem. Legislation is being redrafted to standardize and rationalize severance benefits, and more recent privatization show significantly lower levels of severance payments, averaging 10 months. A national pension scheme was introduced to replace retirement benefits formerly provided by SOEs. In addition, the Work Bank's supported Program of Action to Mitigate the Social Costs of Adjustment has devoted resources to provide compensation packages for retrenched workers.

Source: Kikeri, (1998)

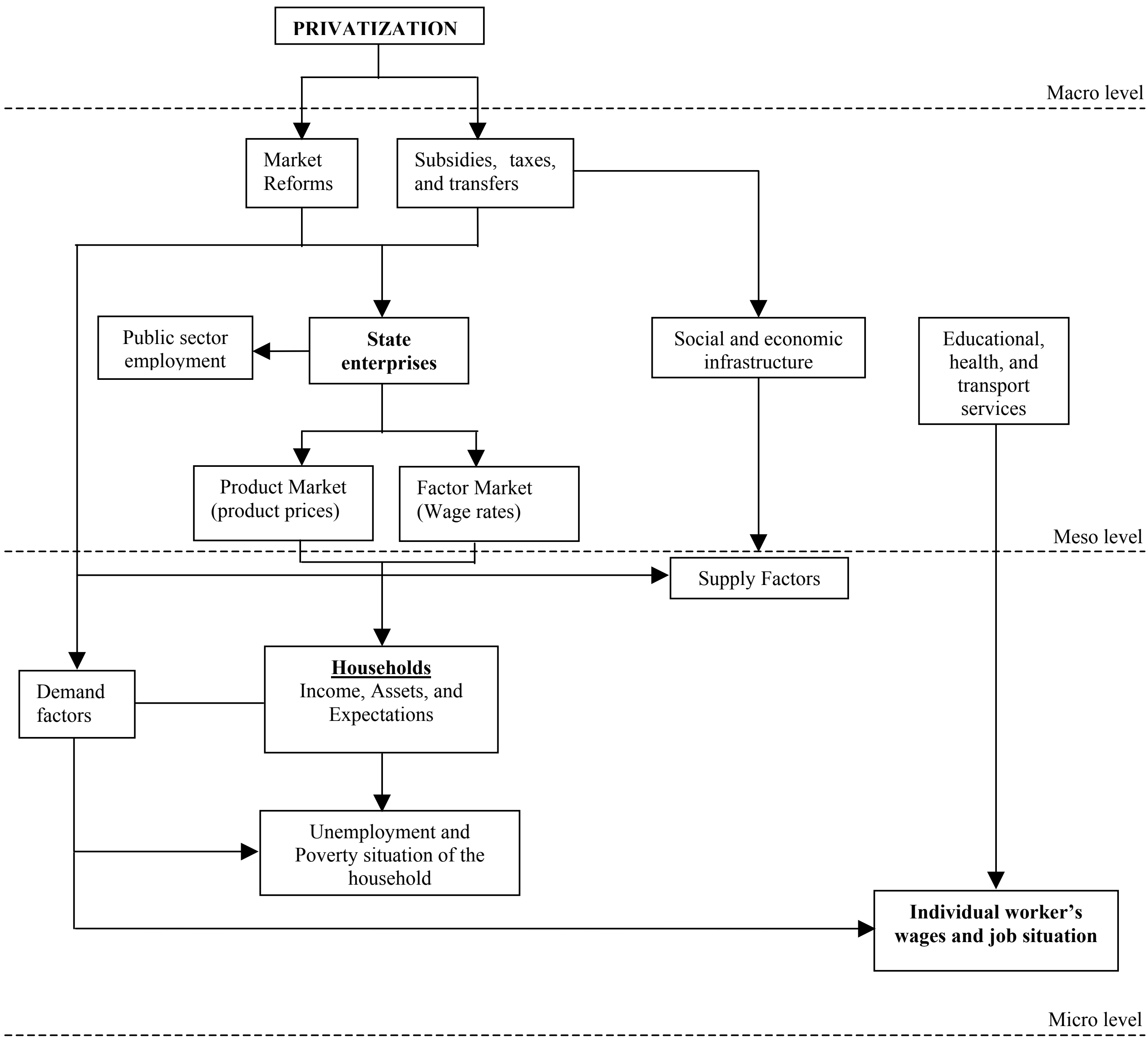
In addition, labor layoffs and retrenchment of workers resulting from the liquidation of state owned enterprises have brought untold hardships to communities. Certain towns have been turned into ghost towns after enterprises providing the major sources of economic activities and employment were liquidated. Many communities providing indirect services such as accommodation to workers, food canteens, shops and entertainment went bankrupt because of the lack of economic activity. The majority of the able-bodied youth has migrated to urban areas, compounding the already existing rural-urban migration dilemma of urban areas. For example, the city of Accra is witnessing what is commonly referred to as the 'dog chain boys' phenomena because these 'new migrants' are seen along the major roads of the city selling dog chains.

Thus, the intended impacts of privatization -- increase in domestic industrialization and the emergence of a vibrant private sector as a source of employment -- on the country's economy did not materialize (ISSER, 1997). In the meantime, the socio-economic conditions, poverty, unemployment and health services in the country continue to deteriorate. The situation with respect to employment conditions, is worse in the urban sector, as retrenched workers experience losses in earnings and benefits such as free transportation, health care, and subsidized housing (see ISSER, 1997). In addition, laid-off workers face the same unemployment rate as the general population (30%) despite a high skill base (ISSER, 1997). The uncertain situation has created an atmosphere of fear, anxiety and apprehension in the country. Threats of strikes and industrial action have therefore become common phenomena in Ghana.

The general insecurity in employment, complaints from workers and evidence of high cost of living, among other factors, have caused the government to delay further implementation of the privatization process. This delay in the implementation of the privatization process has had adverse effects on large enterprises where labor adjustments are needed and the cost to the nation in terms of initial unemployment and compensating payments will be high. Furthermore, doubts have been raised about the rationale of the privatization program and whether it was a better policy option for public enterprise reforms.[1] The fear and anxiety prevailing in the country are largely due to lack of information resulting from inadequate and incomprehensive impact studies at the micro level of the various reform programs on workers. The impact of privatization at the micro level, for example, has received little attention despite its importance to the economic development of the country. The problem can be attributed to, among others, the complexity of the linkage between macro level policy and the living conditions of individuals.

This research looks at two impacts of privatization: the impact on workers wages and job satisfaction. It uses a framework based on the World Bank macro-meso-micro analysis to study the effects of privatization on wages and job satisfaction of workers (see Figure 1.6). The figure illustrates the complexity of the cause and effect relationship between privatization, wages and job satisfaction of workers. For example, government's contracting fiscal and monetary policies (removal of subsidies, corporatization of enterprises), a macro policy, affects the whole structure of state owned enterprises, including their demand for both capital and labor at the meso level. Enterprises are then faced with the problem of restructuring their business processes; a process that can cause massive layoffs, retrenchment of existing labor and re-negotiation of existing contracts. The activities by enterprise top management affect individual workers including their wages, work conditions and job expectations at the micro level.

Figure 1.6: Link between privatization policy, wages and job satisfaction of workers



Source: Adapted from World Bank (1991b)

1.3 Research Objective

The main objective of this study is to examine the impact of privatization on wages and job satisfaction of urban workers in Ghana and to answer the question: Does privatization improve wages and job satisfaction? More specifically, we would be investigating whether there is a direct relationship between privatization, wage levels and job satisfaction. As most observers of privatization have concluded, privatization or any form of divestiture is inevitable in developing countries, thus the question is not 'why' or 'whether' to privatize but 'how' to privatize (see Walker and Vasconcellos, 1997). Therefore, we are now left with the fine-tuning of the privatization process, that is, a micro and empirical quest such as whether privatization of enterprises has led to measurable benefits or not.[2]

Wage impacts of privatization are analyzed in this study by means of a wage function with data from workers on their personal characteristics and institutional factors on enterprises. In addition to wages, we evaluate partial and overall job satisfaction. Partial job satisfaction relates to self-reported satisfaction levels to various personal and environmental circumstances at the work place such as job security, health and safety and training opportunities. Overall job satisfaction is made up of the above mentioned components combined as well as unobserved components. Partial and overall job satisfaction levels are analyzed by means of an ordered logit model.

The study sheds light on the mechanisms governments can use to minimize increasing urban strife among workers, reducing the political and social cost of labor restructuring, and possibly, finding suitable ways of minimizing the fears and concerns of its citizens. The research is particularly intended to answer the following questions:

1. What happens to the wages of urban workers as a result of privatization?
2. What effects has privatization had on workers job satisfaction?
3. What factors influence wages and job satisfaction of workers in privatized and state owned enterprises?

1.3.1 Theoretical approach

This research combines the topics of the property rights and the principal-agency theory to analyze wage and job satisfaction of workers under different ownership structures – private ownership and public ownership. Property rights refer to various ownership arrangements with privatization being a transfer of property rights from the public sector to the private sector. The concept behind the property rights theory is that when enterprises are owned by the entire society (public ownership) an individual member is assumed to have less incentives to take care of these enterprises and employees of such enterprises are assumed to have weaker incentives to work. Hence enterprises under public ownership end up being inefficient. In the private sector, where property rights are adequately defined, enterprises turn to be more efficient.

The principal-agency theory focuses on contractual relationships between two parties, one party (the agent) agrees to fulfil its responsibilities to satisfy a second party (the principal), who compensates the agent properly. Any organization (including a state owned enterprise) has relationships between parties that can be analyzed using an agency framework. For example, a principal-agent relationship that exists within most enterprises is that between a manager and a worker. In this particular relationship, a manager (principal) agrees to compensate a worker (agent) in exchange for him/her performing useful work. After privatization, a new set of owners become the 'principals'. The differences in ownership therefore result in new principal-agent relationships that can influence wages and employment conditions. We therefore conceptualize that decisions made by principals affect wages and job satisfaction of workers either negatively or positively depending on the contractual agreement. Additionally, we hypothesize that the impacts on wages and job satisfaction will depend on the socio-economic and institutional factors including the education and gender of a particular worker and the sector of employment.

1.4 Data Collection

The empirical aspect of the study is based on interviews carried out among urban workers in selected urban areas in Ghana between April and October 2001. The study concentrated on urban workers because most state enterprises in Ghana are urban-based and therefore urban workers dominate the labor market. In addition, urban areas lacked social safety nets such as extended family support for distressed workers hence most urban workers were more vulnerable and often bore the full impact of enterprise restructuring. For example, most laid-off workers remained in urban areas and gravitated more to self-employment where earnings were 35 to 40% less than previous earnings.

The survey involved two phases. Phase I had two activities: (a) review of secondary information from various publications and reports and (b) informal discussions with key officials of the Divestiture Implementation Committee (DIC), the State Enterprises Commission (SEC), Ministry of Finance (MOF) and heads of certain enterprises. The main objective of this informal discussion was to gain an understanding of the policies, structures and systems of the government and the enterprises.

Phase II of the survey involved enterprise-level data collection from sampled workers. This was carried out by conducting interviews using structured questionnaires. Workers from both the state-owned and privatized enterprises were randomly sampled and interviewed. The objective of the interview was to collect data on workers' economic, social and personal characteristics as well as their opinions regarding their work circumstances in both enterprises. In the privatized enterprises, data relating to workers economic and work situation in the pre and post privatization periods was collected, whilst in the SOEs, data on workers current situation and that of five years ago was collected.

Enterprises were selected based on certain criteria. The ideal approach was to select enterprises that were randomly assigned to be privatized, but in Ghana, enterprises were not randomly assigned (perhaps better or worse enterprises were privatized first). Thus, to overcome the selection problem that might otherwise bias the results, we applied three criteria to the selection process for a privatized enterprise. These were:

(i) That the enterprise should have been privatized for at least four years to ensure that the impact of privatization on workers were sufficient enough to be assessed,

(ii) That the enterprise should have not less than 500 employees, thus making it an important contributor to gross domestic product (GDP), and

(iii) That the enterprise should be urban-based since privatization is believed to have affected urban employees more due to the high concentration of state owned enterprises.

Selection of enterprises under the SOEs was based on the following criteria:

(i) The enterprise should be under the supervision of State Enterprises Commission (SEC) and subjected to the performance, monitoring and evaluation system (PME),

(ii) That the enterprise should have not less than 500 employees, and

(iii) That the state owned enterprise should be urban-based.

The PME system, supervised by SEC, is designed to ensure that enterprises met set targets at the beginning of each accounting year.

1.5 Study Outline

The remainder of the study is organized as follows: Chapter 2 discusses the economic structure of Ghana, the Ghanaian public sector and privatization in Ghana. Issues discussed include an overview of the economy, the structure of the economy such as share of agriculture, industry and services in GDP. Labor market issues as well as wages in Ghana are also discussed. The privatization process, including the mechanics, results and issues facing the privatization process are also presented. This is to help us gain a better understanding of the research problem and to provide the basis for the analytical framework presented in chapter 3.

Chapter 3 presents the theoretical considerations for the study. First, we discuss the theories that explain the rationale for privatization in the first place, namely, the property rights, the public choice and the Austrian school. Secondly, the various empirical studies, which analyze the hypothesis that SOEs are less efficient than private firms are presented. Thirdly, the analytical framework, outlining the causes and effects of privatization, relationship between privatization, wages and job satisfaction are presented using the principal-agent theory. This section uniquely combines the topics of property rights and principal-agent theory to analyze wages and job satisfaction of workers in both privatized and state owned enterprises. Finally, we examine various socio-economic and institutional factors that influence wages and job satisfaction.

Chapter 4 examines the data collection, including the procedures and methods of the data collection procedure and organization. The design of fieldwork is also outlined indicating problems and limitations that were encountered.

Chapter 5 presents the estimated empirical models for analyzing the impact of privatization on wages, partial and overall job satisfaction using various econometric approaches. Issues discussed include impact of privatization on wages, job security, work safety, training opportunities and overall job satisfaction. The main socioeconomic and institutional factors affecting wages, partial and overall job satisfaction of workers in PEs and SOEs are also discussed. The summary and conclusions of the study as well as the policy implications of our findings, limitations of the study and implications for further research are presented in Chapter 6.

CHAPTER TWO

GHANA: THE ECONOMY AND PRIVATIZATION

2.1 Introduction

This chapter discusses the main important issues related to the privatization process in Ghana. We begin in section 2.2 with a general overview of the country. In section 2.3, we discuss the structure of the Ghanaian economy, in the pre and post structural reforms eras. The main sectors of the economy that will be discussed will include agriculture, industry, and service including foreign trade. Section 2.4 will be devoted to the mechanics of the privatization process, results of privatization and issues facing the privatization process. Section 2.5 examines labor market issues in Ghana, specifically, pre-reform employment, wages and post-reform developments. Summary and conclusions are presented in section 2.6.

2.2 Ghana: An Overview

2.2.1 History and political situation

Ghana is named after one of the ancient Sudanese Empires, which flourished between the fourth and tenth centuries. The country was occupied by several kingdoms, of which the most important were the Fante, who occupied the coastal region, and the Ashanti, whose territory is further inland. The Portuguese were the first Europeans to arrive in the late 15th century. During the following 300 years, the Gold Coast became a major trading center, mainly in gold and slaves. All the main European colonial powers were engaged in this commerce. During various periods from the time the Portuguese discovered gold in 1471 until independence, the monarchs of several European kingdoms, notably Denmark, Prussia, Sweden, Holland and England sent hordes of explorers and merchants there to explore its abundant wealth, (natural and human). They battled each other for supremacy and control over the land, built forts and castles, which eventually served as trading posts. Vestiges of the extent of European colonial presence and concentration of activity are still evidenced by the fact that of the 32 European colonial forts and castles dotted along the coast of West Africa 29 are in Ghana.

From the beginning of the 19th century, an increasingly assertive Ashanti kingdom drove out many of the European colonists. The important exception being the British, who allied with the rival Fante kingdom to defeat the Ashanti kingdom in 1874 and took control of the whole Gold Coast. The Ashanti-controlled interior was subjugated over the next 15 years and converted into 'protectorates', locally ruled under British supervision. The colony's lands were supplemented in 1917 by parts of neighboring Togoland, which was formerly under German control. Together, these formed what in 1957 became the independent state of Ghana - the first British territory in Africa to gain independence.

Currently, Ghana practices parliamentary democracy based on the United States (US) system with John Kuffour as the president. From independence to date, the country has experienced varied forms of Governments from civilian dictatorship through military régimes to the current democratic government. Three years after independence (1960) Ghana became a Republic with Dr Kwame Nkrumah, leader of the Convention People's Party (CPP) as the first President. Under Dr Nkrumah, Ghana made rapid and remarkable progress in education, industrial and infrastructure development and in the provision of social services for its people At the same time, the country played a leading role in international affairs - especially the United Nations and Commonwealth - in the struggle for the liberation of other African countries, most of which were still under colonial rule. However, Nkrumah's growing dictatorial tendencies at home disaffected many, especially the armed forces, which, in February 1966, overthrew the CPP Government in a coup led by Colonel Emmanuel Kotoka.

Under the provisions of a new constitution accepted by a referendum in April 1992, a President and a new National Assembly were elected by universal suffrage. The President can be elected for a maximum of two four-year terms. Ghana’s legal system is patterned after the Common Law of England. It comprises a constitution, laws enactment by or under the authority of Parliament established by the Constitution, any orders, rules and regulations made by any person or authority under the powers conferred by the Constitution.

2.2.2 Physical geography

Until independence from British colonial rule on 6 March 1957, Ghana was known as the Gold Coast. The name aptly described the country's wealth in gold and other natural resources, which, until present, include:

- rich mineral resources such as gold, diamond, manganese, bauxite, iron, ore and various clay and salt deposits
- extensive, rich forests with a wide range of fine tropical hardwoods
- a wide variety of agricultural products and fishing resources

- Unique tourist attractions, including beautiful landscapes, inviting sunshine, golden beaches, wildlife parks, the countryside with its rich cultural heritage, and the proverbial warmth and hospitality of the people.

Ghana has a total land area of 238,00km^2 and is bounded to the North by Burkina Faso, to the East by Togo, on the West by Cote d'Ivoire and to the South by the Gulf of Guinea. The country is well endowed with broad range of natural resources, such as arable land, forest, and sizeable deposits of gold, diamonds, bauxite, and manganese, as well as a considerable potential for hydroelectric power. The coastal area of the country consists of plains and numerous lagoons near the estuaries of rivers. The landscape is relatively flat and the altitude is generally below 500 meters, with more than half of the country below 200 meters. The Volta River basin, which includes the 8,480 square kilometers Lake Volta (the largest artificial lake in the world) formed behind the Akosombo hydroelectric dam, dominates the country's river system. The predominant vegetation in the north is savannah and shrub, whereas the south has an extensive rain forest.

Ghana has a tropical climate, characterized most of the year by moderate temperatures (generally 21-32 degrees Celsius (70-90 degrees Fahrenheit), constant breezes, and sunshine. In the south, there are two rainy seasons; from March to July and from September to October, separated by a short dry spell in August and a relatively long dry season from mid-October to March. The north is characterized by one rainy season from April to September and one dry season from October to March. Annual rainfall in the south averages about 2,030 mm but varies greatly throughout the country, with the heaviest rainfall in the Western region and the lowest in the north.

2.2.3 Population development and society

The current population of the country is estimated to be about 19.4 million with an annual growth rate of 3.2%. It is composed of 65% rural and 35% urban. Ghana has a high dependency ratio (average of 80), with 45% of the population under the age of 15. Dependency ratio is the number of persons under age 15 and age 65 and over per 100 of those ages 15 to 64 years. The country's life expectancy for males is 52 years and 59 for females (see Table 2.1 for details). Majority of the Ghanaian population is concentrated in the southern part of the country, with the highest densities occurring in the urban and cocoa–growing areas. The largest regions in terms of population size are Ashanti (2 million), Eastern (1.7 million) and Greater Accra (1.5 million).

The country has a high percentage of the population living in poverty. It is estimated in 1996 that 47% of the population lived in income poverty. Income poverty refers to the inability to command the level of income or expenditure needed to attain a minimum standard of living as defined by Ghana's poverty line.

While poverty is higher in the rural areas than the urban, it is more severe in urban areas because of the lack of support from the extended family system and lack of social welfare institutions.

The principal ethnic groups are the Akans (Twi and Fante speaking), the Guans, Ewes, Dagombas, Gas, Gonjas, Dagabas, Walas and Frafras. Twi, Fante, Ga, Hausa, Dagbani, Ewe, and Nzema are the major languages, but the official language of the country is English. Map 1 shows the principal cities and neighbors of Ghana.

Table 2.1: Population Indicators for Ghana, 1990-2020

Indicator	*1990*	*1996*	*2000*	*2020*
POPULATION ('000)				
Total Country	15,190	17,698	19,272	26,516
Urban	5,165	6,527	7,555	14,372
Rural	10,025	11,171	11,717	12,144
Male, total country	7,553	8,777	9,542	13,065
Female, total country	7,637	8,921	9,730	13,451
DEPENDENCY RATIO				
Both sexes	88.0	86.8	81.6	50.1
LIFE EXPECTANCY AT BIRTH (years)				
Both sexes	54.2	56.2	57.5	63.7
Males	52.4	54.2	55.4	61.2
Females	56.1	58.2	59.6	66.3
INFANT MORTALITY RATE (per 1,000 births)				
Both sexes	88.8	80.3	74.8	50.2
Males	95.6	86.8	81.1	55.5
Female	81.7	73.6	68.3	44.8
UNDER-FIVE MORTALITY RATE ('000 births)				
Both sexes	141.6	125.9	115.7	72.8
Male	149.9	134.1	124.0	80.3
Female	133.1	117.3	107.2	65.0
TOTAL FERTILITY RATE				
(per woman aged 15+)	5.7	4.6	4.0	2.3
ADULT LITERACY RATE				
Male	52	65	79	85
Female	40	52	61	70

Source: ISSER (2000) and USA Bureau of Census database (2000)

Map.1: Ghana, principal cities, and neighbors

Source: Atlas of Ghana (1997)

2.3 Economic Structure

The historical trend of the Ghanaian economy following independence presents quite interesting achievements. The economy achieved tremendous progress in the 25 years after independence. According to the Economist, Ghana in 1957 was the richest country in sub-Sahara Africa, with the best-educated population. It had led the world in cocoa exports, produced about 12% of the world gold, and other minerals (diamond, bauxite, and manganese). Per capita income was almost exactly equal to that of South Korea's: $490 against $491 (in 1980 dollars).

The post independence government led by Dr. Kwame Nkrumah followed an economic development path that eroded most of the gains before independence. The development strategy of the post independent period involved the creation of a socialist state in which the state played a major role in all economic life. State participation in the economy was regarded as a means to achieve several objectives. Dr. Nkrumah regarded state enterprises as instruments of modernization and sources of investible surplus (see Tony Killick, 1978). According to Killick, Nkrumah saw the absence of local entrepreneurial class as an opportunity to increase the degree of state participation in the economy. Thus, in establishing state enterprises, the government believed:

- private enterprises, with a profit motive, only enter economic endeavours that yields high and quick returns
- private enterprises are often reluctant to reinvest their profits but would rather prefer transferring their profits abroad
- savings for investment could be most quickly and effectively generated only on a communal basis through creating surpluses in annual budgets

However, the objective of making state enterprises instruments of modernization and sources of investible surplus did not materialize. The failure was due to several factors including weak project planning, shortage of working capital, over-manning of enterprises through retaining of surplus labor, and the shortage of technical and managerial skills that reduced the efficiency of government farms and factories (BMB report, 1985). Other factors include corruption that distorted project planning processes, the day-to-day operations of enterprises, and the political control of enterprises that resulted in multiple objectives for enterprise operations (see ISSER, 1995; and World Bank, 1989). For instance, by the early 1980s, scarce managerial resources, excess staffing, heavy dependence on imports, outmoded and ill-maintained equipment, and low-control prices plagued the industrial SOEs culminating to their low share of manufacturing in GDP (BMB report, 1985). In addition, Ghana's infrastructure badly deteriorated. State enterprises controlled the transport and communication facilities, while the production of electricity and water were in the hands of state utilities. Utility rates were low, and revenue shortfalls were not totally covered by government subsidies. Funding for needed investment, equipment maintenance and spare parts were scarce.

The World Bank estimated that in the early 1980's, per capita income had fallen by 30%, import volumes by one-third of the previous levels, real export earnings by 52%, investments from 12% to about 3%

of GDP, and the economy was shrinking at 4%. In addition, government's revenue covered only 35% of total expenditure and government deficit rose from less than 1% of GDP to 14.6% (World Bank Country Report, 1984).

Table 2.2: Selected Economic indicators 1975-1983

Domestic Indicators	**1975**	**1976**	**1977**	**1978**	**1979**	**1980**	**1981**	**1982**	**1983**
Real GDP growth	-12.4	-3.5	2.3	8.5	-3.8	-2.3	-3.2	-5.9	-4.3
Revenue Ratio[1] (% of GDP)	15.5	13.4	10.5	6.6	9.9	6.9	4.5	5.6	5.6
Expenditure Ratio[2] (% of GDP)	21.5	22.9	19.1	15.1	16.4	10.9	10.6	11.0	8.0
Fiscal Balance[3] (GDP ratio %)	-11.8	-13.3	-13.2	-9.1	-5.8	-6.1	-6.1	-5.9	-2.5
Investment (GDP ratio %)	12	9.8	9.4	6.4	6.7	6.1	4.7	3.5	3.7
Inflation rate (%)	30	55	116	73	55	50	116	22	123
Credit to Central Government (Billion cedis)	.92	1.57	2.78	4.52	4.90	6.51	10.64	11.05	28.05
Credit to Public Institutions (Billion cedis)	0.30	0.39	0.42	1.11	1.63	1.96	3.39	6.08	1.34
External Indicators									
Export Volume Index (1980=100)	142.8	149.7	123.3	101.6	96.8	100	103.1	116.5	84
Import Volume (1980=100)	115.4	149.6	155.4	128.8	97.9	100	112.7	64.4	58.2
Gross reserves/GDP	3.6	1.9	1.7	2.5	2.9	1.5	.8	.7	3.6
Official Exchange Rate	1.15	1.15	1.15	2.75	2.75	2.75	2.75	2.75	30
Ratio of parallel to official rate	1.7	2.5	8.0	5.9	5.7	5.8	9.5	22.4	22.2

Source: International Monetary Fund (IMF) (1991)

[1] refers to amount of government revenue as a percentage of GDP

[2] refers to amount of government expenditure as a percentage of GDP

[3] refers to the net amount to government (revenue minus expenditure)

Inflation was running at 123% with gross international reserves equaling only 1% of GDP in 1982. The exchange rate was highly distorted with the parallel rate exceeding the official rate by more than 22 times (see Table 2.2).

Since the early 1990s, Ghana has enjoyed some of the closest technical and favorable creditor support from the IMF, World Bank, and other bilateral official creditors. In a way, the country became the 'test pupil' for the new orthodoxy of development policy under a typical array of development challenges facing an African economy. The results of the new policy have been distinctly mixed and inconclusive, although economic growth has been substantially higher than it was in the 1980s, and less susceptible to outright contraction and financial crises. Table 2.3 provides some current economic data compared with the United Kingdom and United States as well as various projections by the IMF.

Table2.3: Ghana – Economic Data

	1997	1998	1999	2000	2001	2002	2003	2001-5 Annual Avg.
Domestic Data								
GDP Growth %	4.2	4.7	4.4	3.7	3.5	4.0	4.5	4.0
Inflation %	27.9	19.3	12.4	25.0	30.1	16.2	10.6	10.0
Budget Balance % GDP	-9.6	-10.9	-8.7	-8.0	-9.7	-9.6	-8.5	-8.5
Leading Interest Rate %	42.7	34.4	25.4	29.8	32.0	20.0	18.0	16.0
Unemployment Rate %	. .	. .	. .	40.0	. .	. .	. .	. .
GDP $bn	6.9	7.5	7.5	7.8	8.1	8.5	8.9	. .
GDP % of UK	0.52	0.53	0.53	0.30	0.30	. .	. .	. .
GDP % of US	0.08	0.09	0.08	0.04	0.05	. .	. .	. .
GDP Per Capita $	371	393	393	212	251	265	275	. .
GDP Per Capita % of UK	1.7	1.6	1.6	0.9	1.0	. .	. .	. .
GDP Per Capita % of US	1.2	1.2	1.1	0.6	0.7	. .	. .	. .
Stock Exchange Index	511.7	868.4	900.0	950.0	900.0	920.0	950.0	1,000.0
External Data								
Exchange Rate to $	2,270	2,360	3,540	7,000	7,450	7,550	7,600	7,800
Exports $m	1,490	1,813	1,739	1,645	1,727	1,831	1,959	1,967
Export Growth %, y-on-y	9.9	21.7	-4.1	-5.4	5.0	6.0	7.0	6.5
Imports $m	-2,128	-2,346	-2,613	-2,543	-2,512	-2,588	-2,717	-2,776
Import Growth %, y-on-y	15.0	10.2	11.4	-2.7	-1.2	3.0	5.0	5.0
Trade Balance $m	-638	-533	-875	-898	-785	-757	-758	-809
Current Account Balance $m	-213	-1,076	-895	-457	-337	-257	-321	. .
Current Account % GDP	-3.1	-14.4	-11.9	-5.9	-4.2	-3.0	-3.6	. .
Reserves $m	591	508	502	561	620	735	750	750
Reserve Import Cover – Months[1]	3.3	2.6	2.3	2.6	3.0	3.4	3.3	3.2
Foreign Direct Investment $m	83	56	17	15	15	18	20	22
Foreign Direct Investment % GDP	1.2	0.7	0.2	0.2	0.2	0.2	0.2	. .
Total External Debt $m	6,346	6,883	6,928	9,282	10,530	11,475	12,015	. .
Short Term Debt US$m	677	717	711	720	750	760	775	775
Total Debt % GDP	93.2	93.8	90.8	119.0	130.0	135.0	135.0	130.0
Total Debt Service Ratio %	32.7	22.4	22.1	21.1	23.3	20.6	21.0	22.0
Total Debt % Exports	426.0	379.6	398.4	564.3	609.7	626.8	613.3	. .
Short Term Debt % Total Debt	10.7	10.4	10.3	7.8	7.1	6.6	6.5	. .
Short Term Debt % Reserves	114.6	141.0	141.6	128.3	121.0	103.4	103.3	103.3

Notes: 2001-2005 are forecast numbers

Source: IMF Forecasts (2000)

[1] Monthly amount of foreign reserves for imports and foreign payments

The World Bank classifies Ghana as a low-income developing country. With a GDP of around US$8bn (current prices), the annual average GDP growth is about 4.3%. Inflation is now running at 12% annually with gross international reserves equaling 13% of GDP (see Table 2.3). The exchange rate is relatively stable with the black market rate sometimes equal/or below the official rate.

Three major sectors: agriculture, industry, and service are presently recognized by the government in its development strategy. Additionally, income from non-traditional exports such as common salt and assorted handicrafts as well as indirect taxes from foreign trade have become important. As a contribution to domestic income, indirect taxes from foreign trade are included in the discussion. Until 1992, the agricultural sector was the leading contributor to GDP. In 1991, the sector contributed 43% of GDP. Today, the sector continues to play a leading role in terms of its share to GDP and employment (employs about half the work force in Ghana). In 2000, the agricultural sector registered the least growth (2.1%) although its contribution to GDP was still the highest (36.6%). This was followed by the services and industrial sectors with 29.7%, and 25.2% respectively, while indirect taxes contributed 9.1% of GDP. The Ghanaian economic structure at a glance is presented in Tables 2.4 and 2.5

Table 2.4: Structure of the economy

(% of GDP)	**1980**	**1990**	**1999**	**2000**
Agriculture	57.9	44.8	35.8	35.3
Industry	11.9	16.8	25.4	25.4
Manufacturing	7.8	9.8	9.0	9.0
Private consumption	83.9	85.2	82.7	81.4
General government consumption	11.2	9.3	13.6	15.3
Imports of goods and services	9.2	25.9	49.2	69.6

Source: World Bank Group: http://www.worldbank.org/data/

Table 2.5: Structure of the economy (growth rates)

Average annual growth	**1980-90**	**1990-00**	**1999**	**2000**
Agriculture	1.0	3.4	3.9	2.1
Industry	3.3	2.6	4.9	3.8
Manufacturing	3.9	-3.3	4.6	3.7
Private consumption	5.7	5.3	4.7	5.1
General government consumption	2.4	5.4	-5.4	20.1
Gross domestic investment	3.3	2.3	-3.3	-19.1
Imports of goods and services	.06	11.2	10.9	-17.3

Source: World Bank Group: http://www.worldbank.org/data/

To attract more investment and for internal business development, the country has an investment code, enshrined in its company code. The companies code (1963) *Act 179* governs the formulation and operation of business entities in Ghana. The code addresses issues pertaining to the formation of companies, company regulations, membership of companies, the issuance of securities, accounts and audits, and specific provisions applicable to public companies. Companies operating in Ghana are liable to pay 35% income tax on profits. Taxable profits are based on profits declared in audited accounts subject to adjustments made for capital allowances. A capital gains tax of 5% is payable on disposal of fixed assets, with tax exemption on capital gains on certain listed securities. A 10% withholding tax is charged on dividend payments, while companies registered with the Investment Promotion Center are eligible for tax incentives and other benefits. The investment code provides guarantees against expropriation and makes allowance for dispute settlement.

Ghana operates a Free Zones Act (1995), that seeks to promote the processing and manufacturing of goods through the establishment of export processing zones. The act encourages the development of commercial and service activities at sea and airport areas. Incentives under the act among others include:

- 100% exemption on payments of income tax on profits for 10 years
- 100% exemption from payment of withholding taxes on dividends arising from free zone investments
- Relief from double taxation for foreign investors and employees
- 100% exemption from payment of direct and indirect duties and levies on all imports for production and exports from free zones and no restriction on profit repatriation
- 100% ownership of shares by investors and guaranteed against nationalization

2.3.1 The agricultural sector

Key activities in this sector include food cropping and livestock, cocoa production and marketing, forestry and fishing. The agricultural sector provides employment to a large portion of the economically active population, particularly women, as self-employed and farm labourers. As at 1997, 57% of Ghana's economically active population was estimated to be employed in this sector (ISSER, 2000). Cocoa is the most important cash crop produced in Ghana, providing a significant portion of Government receipts. Ghana used to be the world's largest cocoa producer in the 1960s but due to structural problems such as low investment and low producer prices for farmers, Côte d'Ivoire took the lead position in the late 1970s. Other food and industrial crops cultivated include maize, cocoyam, cassava, oil palms, cotton, rubber, sugar cane and tobacco.

Forests cover about a third of the total land area in Ghana, though not all of it is suitable for commercial exploitation. Commercial forestry, the fourth largest foreign exchange earner, is concentrated mainly in the southern parts of the country. Fishing contributes the least to the total output of the sector. Fresh water fish from inland water bodies such as the Lake Volta supplements marine fish. Fish farming, which was introduced in the early 1980s is still largely undeveloped in the country.

A summary of the economy of Ghana by ISSER in 2000 shows that the Agricultural Sector contributed 37% to GDP in 1999 (excluding net indirect taxes) and grew by 4%, compared with a growth of 3% in 1998. The Forestry and Logging sub-sector grew by 7% in 1999, a drop of 3% points below the 1998 levels. Crops and Livestock sub-sector grew by 5% in 1999 whilst the Fishing sub-sector grew by only 1%. Cocoa Production and Marketing sub-sector recorded a decline of 0.5 percentage in 1999, compared with an increase of 11% in 1998. This was the result of a decline in production and a lower export price.

2.3.2 The industrial sector

The major sub-sectors under this sector are mining and quarrying, manufacturing, electricity and water, and construction. Nkrumah's industrialization drive in post-independence Ghana led to the establishment of several industrial enterprises. These include an aluminum smelter, an oil refinery, a cement factory, sawmills, timber and cocoa processing plants, breweries, textiles, and vehicle assembly plants. However, problems of an overvalued national currency (cedi), shortage of foreign currency for the importation of raw materials and spare parts, and poor management in the state sector resulted in reduced performance of these industries.

The mining sector has recovered strongly since the late 1980's and is currently the leading foreign exchange earner for Ghana. In 1998, gold exports accounted for 38% of foreign exchange earnings compared to 34% from cocoa exports. The growth in the sector resulted from the introduction of new legislation that replaced the previous complex and obsolete regulations, and a generous incentives system established in 1986. The old legislation was characterized by a lack of clearly defined mineral policy in terms of appropriate legal and institutional framework, no clearly laid down procedures for the transfer of dividends, loan capital, expatriate allowances, and red-tapeism in the granting of mineral rights. In addition, the deteriorating of basic infrastructure, for example, roads, ports, telecommunications, and electricity, and in particular, the near collapse of the railway system contributed to the halt in sector's growth.

The new legislation, among other things, assisted existing mines to obtain international funding for rehabilitation and equipment procurement, infrastructural improvements and improved management practices. A new Minerals and Mining Law, PNDCL153 was also promulgated in 1986, and institutions such as the Minerals Commission were strengthened. The law also provided for the streamlining of mineral rights licensing procedures and a favorable fiscal and financial regime, as well as appropriate fiscal and economic regime to attract investments into the sector. A number of financial provisions, including reductions in corporate tax rates (from 45 to 35%), exemptions from custom duty payment for imports of equipment and machinery meant for the mining sector, and retention of profits abroad by companies, were also made in the law.[3] Additionally, a wave of fresh investments was also channeled into mining activities since 1986. Other minerals produced in addition to gold include diamonds, manganese and bauxite.

There has also been considerable progress in Electricity/energy sector development, on the other hand. The main producer of electricity, the Volta River Authority (VRA) added six extra 127 MW turbines at the Akosombo dam site on the river Volta. An additional hydroelectric plant, and a thermal plant with a capacities of 160MW and 300MW were commissioned at Kpong, and in the western region to meet the increasing energy demand.

Infrastructure, which deteriorated badly due to a lack of needed investment, maintenance and spare parts, is also making great progress towards recovery. Capital investment in the sub-sector has succeeded in improving infrastructure. This includes substantial stock of modern sector housing, tarred roads and improved transport and communications. For example, increased investment in the telecommunication sector has enabled Ghana Telecom to expand its fixed line network, develop a nationwide GSM (Global System for Mobile telephony) cellular network, and invested in a regional submarine optic cable. The project is one of the largest in sub-Saharan Africa. It has upgraded the country's telecommunication infrastructure and expanded fixed and mobile lines to underserved areas of the country. The fiber optic cable has also improved communication within Africa and the rest of the world.

In manufacturing, the principal objectives of post-independence development polices in Ghana were to diversify the predominantly agricultural economy, create employment for the rapidly growing population, raise per capita incomes, improve the balance of payments and achieve rapid economic growth. Based on the modernization paradigm, and the drive to catch up with the advanced industrialized nations, development through massive industrialization and through import-substitution constituted the main policy thrust. The focus was on the development of large-scale, capital-intensive manufacturing industries owned and managed by the state. These industries were protected from foreign competition through a restrictive trade policy regime, complemented by an array of subsidies serving as incentives. Trade policy instruments included; quantitative import restrictions, foreign exchange rationing, high tariffs on imported consumer goods, import licensing and domestic price controls. Other measures included the administrative fixing of minimum wages, rents and interest rates.

The Industrial Review Series of the United Nations Industrial Development Organization described the immediate post-independence era as one of industrial growth (UNIDO, 1986: p.14) in terms of output and employment as follows: While gross national product was growing at around 2.5% annually, constant price manufacturing value added grew at 9%. The growth rate of manufacturing output rose from 10% in

1960 to 13% between 1963 and 1970. The share of manufacturing in total industrial output grew from 10% in 1960 to 14% in 1970.Total employment in the manufacturing sector increased by nearly 90% between 1962 and 1970.

The growth of domestic manufacturing could however not be sustained beyond 1970. Although the Nkrumah government was overthrown in 1966, no major changes were subsequently effected in the country's trade and industrial polices. The performance of industry in Ghana during the period 1970 to 1983 could be described as stagnation and decline. By 1982, the profile of the domestic manufacturing sector was characterized by:

- Serious under-utilization of installed capacity
- Obsolete machinery, which was performing inefficiently
- Over-dependence on imported raw materials for industrial operations.
- High and uncompetitive prices of products
- Poor quality products
- Low labor productivity
- Low valued-added
- Low contributions to GDP growth
- Haphazard location of industries leading to over-concentration in a few urban areas, particularly Accra, Kumasi and Takoradi
- Lack of horizontal and vertical integration in the industrial sector for comprehensive industrial development

The poor performance of the domestic manufacturing sector during the mid-1970s and early 1980s was due principally to inappropriate economic policies pursued by various governments since the 1960s. These policies made the Ghanaian economy unable to cope with the changing external economic environment and the inter-related problems of capacity utilization, high unit costs, low productivity, widespread inefficiency and uncompetitive position in international markets.

After the launch of the Economic Recovery Program in 1983, the performance of the domestic manufacturing sector improved rather sharply in good part due to the availability of imported inputs. The real annual growth rate of manufacturing value added rose sharply from 13% in 1984 to 24% in 1985, but then fell back to 10% in 1987 due to lack of imported inputs and capital as the government started to change its industrial policy in favor of privatization. While structural adjustment policies had a depressing effect on urban small manufacturing enterprises in Ghana (Sowa *et al.,*1992), higher growth rates were achieved by small export-oriented manufacturing enterprises.

The government also launched a trade policy reform in the late 1980s. The aim of the trade policy reforms was to rationalize the incentive system and improve the competitiveness of domestic manufacturers.

In the initial stage, the extensive quantitative restrictions and domestic price controls were removed and the exchange rate was allowed to float with market forces. Price distortions arising from tariffs and protective duties were reduced and finally phased out in the late1980s. Along with the liberalization of imports, export duties were removed and export licensing abolished in 1990. Export incentives were introduced; including duty-free imports of machinery and income tax rebates based on export sales. After 1987, the manufacturing sector bounced back in response to the economic reforms, hitherto made. By 1988, domestic manufacturing accounted for 9% of real GDP. Since then, however, performance has been rather unimpressive in terms of growth, share of real GDP and industrial output. In the manufacturing sub-sector, capacity utilization increased from its 1984 low level of 18% to 40% in 1988, a level deemed unacceptably low. The rate of output growth slowed from 25% in 1985 to 0.6 percentage in 1989. The contribution of the manufacturing sub-sector to national output gained an upward trend since 1995. It moved from 2% that year to 3% in 1996, accelerating to 5% in 1997 before falling back to 3% in 1998, reflecting its longstanding volatility. This development was due to the fact that after the existing usable capacity had been brought into production, the enhanced pace of expansion could not be maintained.

To conclude, the Industrial Sector's share of GDP in 1999 was 25%. It achieved a 5% growth in 1999, an improvement of two per-centage points over the 1998 figure. The Electricity and Water sub-sector registered strong growth of 7.8%, followed by Construction, 5%; Manufacturing, 5%; and Mining and Quarrying, 3% (ISSER, 2000).

2.3.3 The service sector

This is arguably the most diversified sector in the Ghanaian economy with considerable growth potential. The range includes communication and transportation, finance, insurance, real estate, wholesales and retail trade, restaurants and hotels, government services, social and personal services as well as non-profit services. The gradual withdrawal of the Government from provision of some of these services through privatization is having a tonic effect on the sector as private entrepreneurs take on an increasing responsibility. The services sector plays a vital role in the economy by facilitating economic growth and providing an enabling environment for the productive sectors to function more effectively. For example, Ghana has more to offer the international tourist than most West African states. Central to Ghana's unique attraction is its history as an important departure point for slaves' traders in the 15-18th centuries. The Ghanaian coast is littered with European fortresses from which the slaves were bundled off to the New World. With several programs like the Emancipation Day celebration, Ghana is creating a growing market for itself as a heritage and tourist destination for African-American and Africans in the Diaspora.

The contribution of the service sector to GDP underscores its importance. The services sector accounted for 25% and 27% of GDP in 1992 and 1997, respectively. The sector has emerged as the fastest growing sector (6% in 1999) in the economy, contributing 29% of GDP in 1999. Under this sector, the Wholesale and Retail Trade sub-sector grew by 7%; Restaurants and Hotels by 6%; Transport, Storage and Communications by 6%; Community, Social and Personal Services 6%; Finance, Insurance, Real Estate and Business Services, 4%, Government Services, 4% whilst Producers of Private Non-Profit Services sub-sector grew by 4% (see ISSER, 2000; Ghana Government, 2000).

2.3.4 Foreign trade

Ghana's foreign trade is characterized by trade deficits as imports continue to outpace exports. Exports are classified either as traditional or non-traditional. Traditional exports include cocoa, timber and minerals while non-traditional exports include common salt and assorted handicrafts. For past years, non-traditional exports have contributed an average 8% to total exports. In 1986, cocoa was the leading export commodity, contributing 67% of total exports. However, the contribution of cocoa to total exports over the years has dropped considerably and in 1998, was only 34% of total exports. Gold exports have assumed the leadership, accounting for 38% of total exports in 1998. Most of Ghana's exports are directed to European countries and the United States (US). Capital goods, intermediate goods, fuel and energy, and consumer goods are the major imports. Imports are mainly from the United Kingdom, the United States, Nigeria (crude oil) and Asia.

2.4 Privatization in Ghana

2.4.1 Public enterprises

Public sector enterprises have dominated the other sectors in the evolution of Ghana's formal sector since independence in 1957. By the late 1970s, Ghana had over 300 SOEs (see Map 2), more than any other African country except Tanzania. In 1980, the 300 Ghanaian state-owned enterprises produced over 10% of GDP, accounted for over 50% of GDI, absorbed over 25% of national debt and accounted for 40% of total wage employment (see BIDE report 1999).

By 1985, the total employment in the SOE sector was estimated to be 397 thousand as against 67 thousand in the formal private sector (Canagarajah and Mazumdar, 1997). SOEs providing utility services such as transport, energy and water, and marketing boards like the cocoa marketing board had the largest share of employment in the SOE sector. These SOEs enjoyed considerable advantage over private concerns in the form of financial assistance, use of state commercial assets, special tax relief, and monopolistic markets. In the late 1980s, the government realizing the importance of reducing the dominance of the public sector, launched the public sector reforms in which privatization was an essential component.

The idea behind the privatization drive was to shift assets from public-sector control to the private sector and the capital market. Hence, the growing appeal for privatization came from both the desire for smaller government and the belief in the superiority of the private sector in economic performance (Cook and Kirkpatrick, 1988)[4]. The program had several objectives with the fundamental ones being (see World Bank, 1984):

- To increase the private sector's role in the development of the economy
- To reduce the financial burden on the government of maintaining extensive and expensive services
- To improve the level of productivity and efficiency of the services and enterprises that would be privatized

In reality, the goal of the program was: *to help free management resources within government from the burden of maintaining the day-to-day running of State-Owned Enterprises (SOE's) to allowing government focus its energies on priority issues: -- enhance new investment and provision of adequate infrastructure, to encourage indigenous entrepreneurs and investors to participate in the ownership and management of enterprises (with emphasis on developing the local private sector), and improving competition in the market place by regulating monopolistic enterprises* (BMB Report, 1985 Vol. 1 p.10).

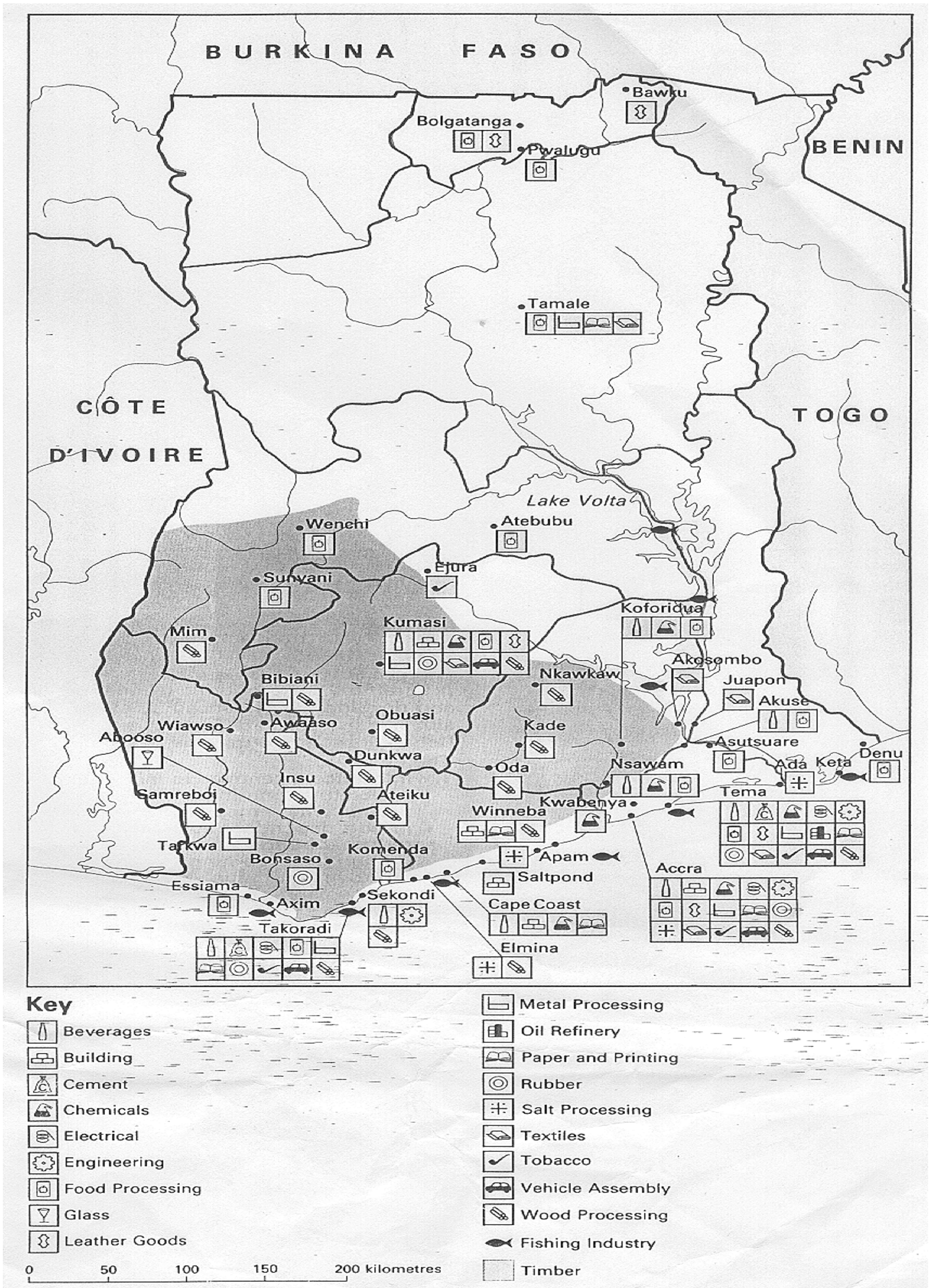
For effective management and coordination of the program, the government established the Divestiture Implementation Committee (DIC) to execute all government policies in respect of divestiture of state interests. DIC's functions under that law were:

- To plan, monitor, coordinate and evaluate all divestitures
- To arrange for the effective communication of Government policies and objectives for any divestiture
- To develop criteria for the selection of enterprises to be divested and assume responsibility for preparing such enterprises for divestiture
- To make appropriate consultations for successful processing of all divestiture programs
- To ensure consistency in procedures for divestiture, in particular, with regard to valuation, invitation for bids, negotiation of sales and settlement of accounts

The members of DIC comprise of ministers of state and trades union, institutional and private sector representative. The day-to-day management of the divestiture program is undertaken by a Secretariat, led by an Executive Secretary. The members of DIC meet regularly to consider, among other things, specific transactions negotiated by the Secretariat, submitting, as applicable, recommendations to the President's

Office for approval. Specialized sub-committees on mining and cocoa and coffee plantations assist DIC. The World Bank provides financial support and advice to DIC. DIC also receives technical, financial and legal assistance from the United Kingdom's Overseas Development Administration.

Map 2: Distribution of SOEs in Ghana (1980s)



Source: Atlas of Ghana (1997)

2.4.2 *The mechanics of privatization*

The initiative to privatize or to divest an enterprise is the sole responsibility of the Divestiture Implementation Committee (DIC) and the government of Ghana. [5] Information and documentation are collected on each SOE listed for privatization by consultants appointed by the DIC upon which decisions as to whether to divest the enterprise as a whole or fragmented for the purposes of divestiture, and the preferred mode of divestiture are made. Fragmentation may be deemed appropriate, in instances where the SOE in question comprises of a number of distinct business or divisions. The mode of divestiture will usually be the sale the SOE's assets to private sector investors by competitive tender. Other options include the sale of shares (particularly where the SOE already has some private sector shareholders), the entry by the state into a joint venture with private sector investors[6] and the leasing to private sector investors of SOE's assets. Where an SOE is moribund and investors have showed no interest, liquidation is sometimes recommended.

It has been Government's policy, except in exceptional circumstances (and regardless of the model of divestiture), to end the contracts of employment between an SOE and its employees. The Government will indemnify investors against all costs associated with the termination (including, for example, severance payments and end-of-service benefits) or otherwise arising out of the employees employment during the period ending on the termination. Termination permits investors to start with a clean slate and, most importantly, to select their own levels of staffing.

2.4.3 *Results of Privatization in Ghana*

At the time of writing this thesis, 233 SOE's out of 300 had been privatized since the commencement of the program in 1988. A total of 127 were privatized by way of sale of assets, 35 by sale of shares, 21 joint ventures, 7 leased, and 43 were liquidated (see Table 2.6). In assessing the value of sales on the African continent, Ghana is recognized as having one of the highest sale values of privatization proceeds. In terms of privatization deals, (percentage of annual GDP), Ghana features prominently in comparison with other African countries (see Tables 2.7 and 2.8).

Table 2.6: Number Enterprises Privatized in Ghana (1995-1999)

Mode	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total
Sale of Assets	16	4	3	30	19	18	15	7	15	127
Sale of Shares	11	5	2	2	6	1	2	2	4	35
Joint Venture	6	3	1	4	0	4	1	2	0	21
Lease	3	1	0	1	0	0	1	0	1	7
Liquidation	24	2	5	5	6	0	0	0	1	43
Total	60	15	11	42	31	23	19	11	21	233

Source: DIC (2000)

Table 2.7: Cumulative Sales proceeds at 1996 as percentage of GDP

Country	*%*
Mozambique	11.1
Cape Verde	9.9
Guinea Bissau	7.2
Ghana	**7.2**
Zambia	4.2
Sao Tome and Principe	4.0
Tanzania	3.5
Benin	3.1
Togo	3.0
The Gambia	2.8
Average for Africa	*1.1*

Source: World Bank (1997)

Table 2.8: Cumulative Sales proceeds per capita as at 1996 (US$ millions)

Country	*Per capita*
Cape Verde	60.3
Ghana	**27.2**
Zambia	19.4
Guinea Bissau	18.4
Sao Tome & Principe	18.0
South Africa	16.1
Cote d'Ivoire	15.9
Benin	12.4
Guinea	12.1
Mozambique	11.2
Average for Africa	*5.0*

Source: World Bank (1997)

In terms of productivity and efficiency, many poorly managed enterprises have been converted to well-managed private enterprises. The following SOEs are some of the few examples that have been modernized and are in full production after privatization:

(i) West Africa Mills Company Limited, Takoradi
(ii) Tema Steel Company
(iii) Golden Tulip Hotel (formerly Continental Hotel)
(iv) Ghana Agro-Food Company Limited (formerly Tema Food Complex Corporation)
(v) Ghana Textile Printing

The privatization program has contributed to the macro economic stability of the country by providing needed funds for investment, relieving government from the management of large public sector, reducing government expenditure in the sector, and providing more employment (see Box 2.1). For example, overall public sector employment fell from 397,300 in 1985 to 189,300 in 1991 (see Jebuni *et al*, 2001), reducing government payroll budget by 40% in 1992[7]. Contribution of privatization to GDP was 7% in 1996. In addition, privatization has attracted substantial foreign investment into Ghana, although conflicting data makes this difficult to measure. The World Bank's 1997 Country Assistance Strategy for Ghana revealed that net private foreign direct investment (FDI) rose from US$25 million in 1993 to US$35 million in 1995, before falling back to US$20 million in 1996. However, the Bank's *Global Development Finance* puts net FDI flow at US$125 million, US$233 million and US$230 million respectively in 1997. However, despite all these gains, the privatization program has also caused other social problems in the economy including loss livelihood, unemployment, and discontentment in the society (see Box 2.2).

Box 2.1: Evidence from various enterprises

Tema Steel Company, once considered Ghana's Industrial backbone, has also completed its rehabilitation program, which began soon after its being handed over in 1991. Prior to divestiture, operations had ceased altogether. It now produces various sizes of high tensile and mild steel rods and billets. The employment level has gone up form 130 before divestiture to the current 584 – an increase of over 400%. Its capacity utilization has increased from 2% in 1990 to 20% in 1997. From its being in a loss position before divestiture, the company recorded profits of around 996 million cedis about $300,000 in 1996. Tema Steel Company won Gold awards for export of steel billets for the years 1995 and 1996 by the Ghana Export Promotion Council.

The magnificent Golden Tulip Hotel (formerly the Continental Hotel) is yet further testimony to what divestiture can bring to Ghana. Before its divestiture, the hotel had 116 employees. The number of employees has now risen to 339. A major expansion of executive facilities, adding another forty-one executive rooms, two presidential suites, six apartments and two board rooms, was completed recently. The Ghana Tourist Board voted the Golden Tulip hotel "Hotel of the Year" the in 1997.

In addition, a notable recent achievement is the creation of a joint venture, known as Ghana Agro-Food Company Limited (GAFCO), out of the former-Tema Food Complex Corporation. The Government has a 25% shareholding in GAFCO, with the balance held by industries Vau Nord AG, a Swiss company with over thirty years of African experience. GAFCO has undertaken a complete rehabilitation of all four industrial plants previously owned by the Corporation. They are now all-operational and are doing well. The number of employees has increased form the pre-divestiture level of 494 to 1,600. Capacity utilization has gone up since divestiture form 45% to 85%. GAFCO was voted "Industrial Company of the year" in 1995 by the Association of Ghana Industries.

West Africa Mills Company Limited, Takoradi, provides a good example of the success story of divestiture. In the three-year since taking over the SOE, the new German owners have invested over DM 30 million, salvaging it form imminent collapse. With the rehabilitation and modernization of the two factories, production of cocoa butter has risen from 10,000 to 20,387 metric tones a year and processing of cocoa beans form 10,000 to 53,351 metric tones a year The number of employees has also increased: form 170 to 450 (DIC report, 1999). See Box 2.1 for more information on results of privatization.

Source: DIC (2000)

BOX 2.2: The other face of privatization

The following example illustrates the extent to which the privatization program can create social problems. In a number of cases, an SOE is the major employer in a town or village and the wholesale redundancy of employees can be disastrous for the social well-being of the local community. African Timber and Plywood (AT&P) in Ghana is an example: 5,000 people are dependent on the 1,250 employees of AT&P. This company had a loan facility for upgrading its facilities but much of the loan was mismanaged; the company also lost its assets (uninsured) as a result of fire. It required further substantial investments before AT&P could become viable. In the circumstances, the company had to lay off most of its labor force creating unemployment in the community that looked to it for sustenance. Hence, when companies in rural areas represent the sole source of employment for an entire community, the handling of such a potentially serious social problem requires both professionalism and compassion. Privatization, therefore, must be seen to have a human face.

Source: Dzakpazu (1999)

2.4.4 *Issues pertaining to the privatization process*

In addition to the problems illustrated in Box 2.2, the privatization process is also beset with a number of other problems. These include the slow pace of the privatization process, lack of transparency, and other external macroeconomic issues. It has come to the realization of the government, over the years that, compared to other countries with similar economic conditions, the number of privatized enterprises in the country was very low. For example, the Zambian Privatization Agency (ZPA) had successfully privatized 76 state enterprises within a year and a half of the privatization drive compared to 84 for Ghana in a four-year period (see ZPA report, 1999). Following this realization, the government in 1996, introduced an outsourcing program upon the advice of the World Bank to accelerate the privatization program. This was accomplished by appointing bankers, management consultants, accounting firms and other specialist to provide advice and ultimately, implement the privatization of specific state-owned enterprises in accordance with DIC procedures. Funding for the outsourcing program was provided by the World Bank and partly from the privatization proceeds. The outsourcing procedure involved competitive tender using World Bank guidelines to select private sector consultants. Principally, the assignment of an enterprise for the privatization given to consultants includes:

- Valuation of the land and buildings, plant and machinery and other fixed assets of the SOE
- Financial valuation of the SOE and preparation of a profile of the SOE in the form of an information memorandum

Firms are then invited to bid for the privatization of SOEs based on the information on the DIC's register. Normally, the DIC invites proposals and evaluates all proposals received from five firms listed on its register, before appointing a consultant.

A review of the outsourcing program in the late 1999 revealed that the program had not been very successful. After three years of implementing the outsourcing program, the rate of privatization, according to the World Bank was still slow (see IMAS Consultancy report on privatization, 1999) The reasons given for the low number of privatized enterprises by the consultants engaged by the government to study the process included:

- The outsourcing program was not well prepared before its implementation because SOEs had several problems, which had not been addressed by the State Enterprises Commission (SEC) before they were offloaded to DIC for privatization.

- Non–viable SOEs and a skewed DIC committee. For example, Government dominated Divestiture Implementation Committee, made the privatization process very cumbersome, bureaucratic, and political.
- Unhealthy investment climate: the inability of local investors to mobilize domestic savings for equity investment in SOEs
- Unfavorable macro-economic environment: The Ghanaian economy for the past decade had not been investor friendly because of high inflation, high cost of capital (40% interest rate) and lack of basic economic and social infrastructure.

The lack of transparency in the privatization process has been blamed on government machinery, although clear rules, with checks and balances established through the inclusion of several different actors (sector ministries, the DIC, and agent banks), have been defined. There are wide spread revelations of privatization contracts signed before bids were called for. The DIC management has been accused of being autocratic and corrupt.

In addition to the above problems, the lack of good financial and capital markets, a well developed local manpower with divestiture experience, and a trouble free legal and regulatory environment, have made the stipulated period for the completion of privatization of an SOE unrealistic. In 1999, the DIC accepted some of the criticisms and took steps to resolve them. In order to address some of these problems and to achieve some degree of transparency and accountability, publication of vital pieces of information were initiated. These included making public, (i) the DIC's procedures; (ii) list of all SOEs listed and purchased; (iii) names and addresses of purchasers; (iv) for what amount (value); (v) what had been paid up front; and (vi) the balance outstanding.

2.5 Labor Market in Ghana

2.5.1 Employment

The labor market in Ghana is first defined in terms of rural and urban locations, and secondly, as a distinction between the formal and informal sectors. The formal sector is one in which wages are determined by institutional forces whilst the informal sector is characterized by a much flexible labor earnings. The distinction between the self-employed and employees correspond roughly to the division between the informal and the formal sectors[8].

The public sector is extremely important in the Ghanaian labor market. It has a large presence in both the services and in manufacturing sectors. As far as the latter is concerned, although potentially tradable, manufacturing in Ghana has so far been largely a special form of non-tradable, being mostly an import-substituting sub-sector. Other important labor segments are the traders - mostly self-employed, in wholesale and retail trade — because they dominate the urban self-employed sector.

The prevalence of multiple occupations is an important aspect of the labor market in the Ghanaian economy (see Appleton and Collier, 1990). For example, the same household would be involved in more than one sector, or the same individual earner divides his time between different activities. In their classification of the Ghana labor market, Appleton and Collier (1990), adopt the method of classifying a household into a specific sector if any of its earnings member report his/her participation in that sector. The authors analyzed the available data from the Social Dimensions of Adjustment Survey for 1988 within six socio-economic groups to which the households were assigned as follows:

- Households producing the exportable crop, cocoa
- Households producing other agricultural goods—basically food
- Households with one or several members who are retail or wholesale traders
- Households with one or more members in wage employment producing non-traded goods and services (excluding traders and government and services)
- Households with one or more members in wage employment producing manufactured goods
- Households with one or more members employed in providing government services

The major expansion in public sector employment started in the 1960s and reached its peak in the mid 1980s. The late 1980s witnessed a fall in the number of public sector employment because of the public sector reforms, which included the privatization of enterprises. This period was characterized by re-deployment and lay-off in the public sector. Employment in the private sector did not fare better either. Performance in the private sector was characterized by turbulence. An up and down phenomenon. After a drastic cut in private employment in the early 1970s, the sector did not witness much change in the 1980s. The reasons for the low level of employment in the sector include lack of private sector initiatives and development by the ruling government, high cost of private capital, unfriendly investor climate, (including intimidation by the ruling government), high inflation and unstable foreign exchange rates (see ISSER, 1990). The beginning of the economic recovery period in the late 1980s saw significant increase in private sector employment. The sector's share of formal employment (SOPSE) increased by 20% in 1987. The setback after 1987 (a drop in 2%) is evidently related to the strengthened trade liberalization measures adopted in the second phase of the program, 1988 – 1990. This made locally produced goods more expensive relative to imported ones, thus damping the manufacturing sector - the main employer at the formal private sector. The public sector has dominated employment in the formal sector for a long time, and the trend has just begun to change (see Table 2.9). In 2000, public sector employment fell by 1.6%. Currently, the private sector employment level is increasing due to the government's policy of encouraging private sector enterprise development, divestiture of public enterprises and the restructuring of several subvented agencies (see Chart 2).

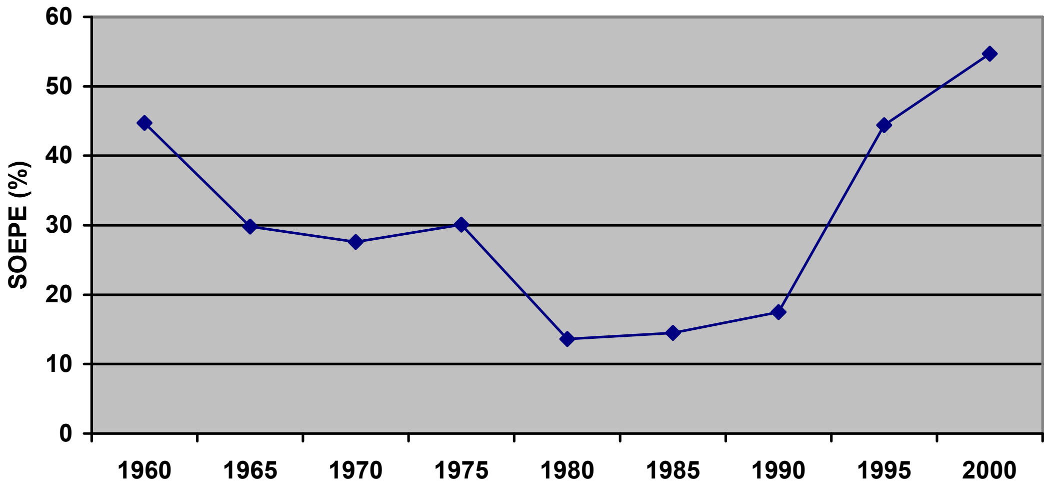
Table 2.9: Formal sector employment, 1960 - 1999 ('000)

Year	Private Sector	Public Sector	All Sectors	Annual Change % All Sectors	Annual Change % Public	SOPSE* %
1960	149	184	333	-	-	44.7
1965	118	278	396	3.8	10.2	29.8
1970	110	288	398	.1	.7	27.6
1975	137	318	455	2.9	2.1	30.1
1980	46	291	337	-5.2	-1.7	13.6
1985	67	397	463	7.5	7.3	14.5
1986	66	347	414	-10.8	-12.6	15.9
1987	79	315	394	-4.8	-9.2	20
1988	55	252	307	-22.1	-20.	17.9
1989	38	177	215	-30	-29.8	17.7
1990	40	189	229	6.5	6.8	17.5
1995	200	250	450	19	6.4	44.4
2000	277	229	506	2.4	-1.6	54.7

Source: Ghana Statistical Service Quarterly Digest of Statistics

SOPSE = Share of private sector in total formal sector employment (Ghana ISSER, 1998)*

Chart 2.1: Share of private sector in total formal employment 1960-2000



Source: From Table 2.9

2.5.2 Wages

Given the structure of the Ghanaian labor market, attaining rapid economic growth, improved job conditions, and social justice has presented challenges. An excess supply of unskilled labor, especially among the youth in the traditional sector, has impeded the achievement of social justice, while a serous shortage of skilled labor for the industrial sector has jeopardized the objective of rapid growth. To reconcile these objectives, a dual approach was adopted. A daily minimum wage for unskilled labor was established to achieve fairness. The minimum wage level was set equal to the average rural income of farmers with an allowance for any differential in the overall cost of urban living, in order to avoid the job destruction effects of excess minimum wages (ISSER, 1997). Shortage of skilled labor was dealt with by allocating new graduates to various sectors of the economy in rough proportions to perceived shortages, with the structure of wages and salaries determined largely by the public service. In addition, the public sector, including SOEs, invested heavily in training. The remaining shortages were met largely by employing Ghanaian experts living outside or expatriates on term contracts.

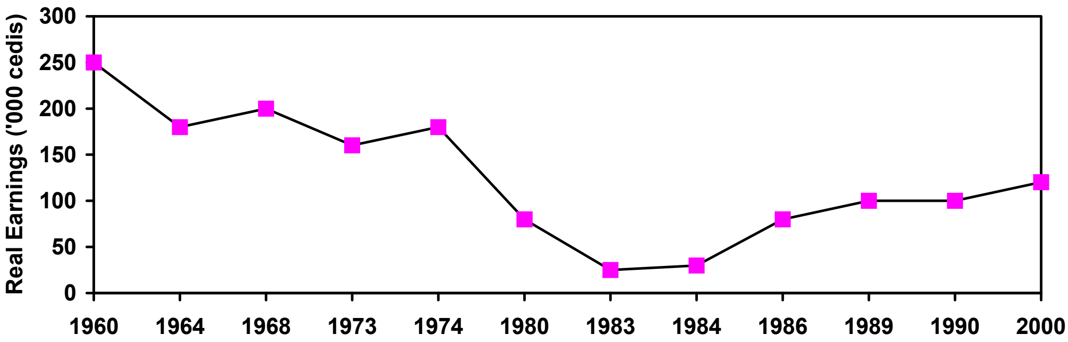
Government policies over the years have had ripple effects on labor earnings, supply and demand in the Ghanaian economy. A narrow view of government's interventions in labor markets is confined only to those aspects of policy, which had a direct impact on the labor market. It reveals the public sector as acting as a leader in the wage determination of the large-scale private firms. Extending this view to the rural private sector, government policy clearly has a direct effect on the earnings of labor in the exportable sector - cocoa. As an exportable, the domestic price of cocoa received by the producers is heavily dependent on the value of the exchange rate—which is influenced by the government of Ghana.

Additionally, the margin of the selling price of cocoa going to the producers is heavily influenced by the government since it has more or less a monopoly position in terms of cocoa marketing (see Canagarajah and Mazumbar 2000). Apart from these direct effects on labor earnings, the indirect effect of government policies extends to practically all the socio-economic groups identified by Appleton and Collier (1990). For example, peasant food producers respond to the rural-urban terms of trade and the availability of goods imported from the urban economy on which they can spend cash earned from marketed surplus. These phenomena are influenced by the state's exchange rate and trade policies, which also affect the state spending on infrastructure and subsidies on agricultural inputs (Canagarajah and Mazumbar, 2000).

In the urban economy, investment and capacity utilization are heavily influenced by demand and supply conditions of essential imported inputs[9] with the resultant course of productivity in manufacturing, service and agro-industries influencing employment and wages. The real earnings per worker employed in the formal sector is plotted in Chart 2.2 (reproduced from ISSER Figure 8.2, p.159). It shows that the drastic decline in real wages took place between the period 1974-83. If the cost of living deflator is to be believed, the level of real wages in 1983 was a mere 12 % of its level in 1974 (ISSER, p.151).

The decline in real wage was due to the failure of increases in the nominal wage to keep pace with inflation, and a deliberate policy of the government (dominant employer) to reduce the wage bill, through wage decline rather than a reduction in employment (Canagarajah and Mazumdar, 2000). While employment in the formal sector increased by 40% between 1960 and 1985, real wages fell by more than 80% (Canagarajah and Mazumdar, 2000).

Chart 2.2: Average real wage of formal sector workers (1960-2000)



Source: Adapted from ISSER (2000)

In the early 1990s real wage in the public sector rose by 170 % over this period, including a major hike of 80% in nominal wages in 1992 (World Bank, 1994, Table 4.2, p.165). This actually put the public sector wage level back to its 1970 level, but it was still only 72 % of its peak in the early 1960s. In the private sector, aggregate earnings data suggest that in 1988, private sector average earnings were higher than those in the public sector (the private-public ratio differential was 1.46). This differential in favor of the private sector seems to have been whittled down in the years after 1988 as public sector wages increased further. The over-all private-public earnings ratio stood at 1.07 in 1991 (ISSER, 1997). The massive wage increase of 80% in the public sector in 1992 actually pushed this ratio much further down.

2.5.2.1 Privatization impacts on wages and satisfaction

The adoption of the privatization policy has had mixed results on wages and employment conditions of workers in Ghana. The process has caused major job losses as new owners of privatized firms reduce excess labor to improve efficiency. It was also government's policy to reduce the workforce of enterprises earmarked for privatization. Thus, previously overstaffed SOEs (estimated at 30%) had to either retrench or lay off several workers. In addition, labor layoffs and retrenchment resulting from the liquidation of state owned enterprises have brought untold hardship to communities. Certain towns have become ghost towns after enterprises providing economic activities and employment were liquidated. Many communities providing indirect services such as workers' accommodation, food canteens, shops and entertainment went bankrupt because of the lack of economic activities. These have meant wage losses to workers and people living in the affected communities. These conditions, among others have led state enterprise workers and organized labor to become the most vocal and organized opponents of privatization, often threatening to derail the process in Ghana.

The intended impacts of privatization on the economy -- increased domestic industrialization, and the emergence of a vibrant private sector to serve as a source of employment for the youth did not materialize (ISSER, 1997). For example, the supply of junior and senior secondary school graduates has out grown demand for that class of labor. Unemployment for the 15-24 age group stands at 41%, compared to the total unemployment rate of 25% reported for the labor force as a whole (IMAS, 1999). Private investment has dropped significantly resulting in a decline in the growth of manufacturing (ISSER, 1997).

In the meantime, the socio-economic conditions, poverty, and health services delivery in the country has continued to deteriorate. The situation is worse in the urban sector, especially, with respect to workers employment conditions- as retrenched workers experience earnings and benefits (free transportation, health care, and subsidized housing) losses (see ISSER, 1997). In addition, laid-off workers face the same unemployment rate as the general population (30%) despite the high skill base (ISSER, 1997). The uncertain situation has created an atmosphere of fear, anxiety and apprehension in the country. Threats of strikes and industrial action have therefore become common place in Ghana.

The general insecurity in employment, complaints from workers and evidence of deteriorating employment conditions, among other factors, have caused the government to delay further implementation of the privatization process. Concerns about the social costs of privatization are also high. The loss of wages and benefits poses social hardships for workers and their families, particularly in urban areas where alternative employment opportunities and social safety nets are lacking. The delay of the privatization process has had adverse effects on large enterprises where labor adjustments are needed and the cost to the nation in terms of initial unemployment and compensating payments will be high.

However, recent survey shows that workers who retained their jobs with privatized enterprises gained in terms of better terms and conditions of service (see Kikeri, 1998). For example, salary levels in privatized textiles and printing companies increased by 10-15% above industrial standards. According to Kikeri (1998), privatization can bring significant benefit to workers in enterprises operating in competitive markets where overstaffing is limited and where new owners are willing to maintain some excess staff to keep the political and social peace. More importantly, privatization can bring benefits to other workers as new jobs are created with new investments and dynamic expansion.

Studies on the impacts of privatization on labor market outcomes -- changes in relative wages, training opportunities, work safety and job security in privatized enterprises in developing countries are limited. Empirical studies consist largely of before-and-after comparison that do not capture any change in government objectives or control for factors that affect workers in the labor market. Studies by Kikeri (1998) on what happens to workers when governments divest most of the time are based on anecdotal evidence and do not focus on sub-Saharan Africa. Moreover, theory has therefore left a gap that empirical work has to fill (see chapter 3). Further studies are thus needed on the effects of privatization on the wage and job satisfaction of workers.

This study seeks to fill that gap by determining whether there are wage and/or employment condition differentials between SEOs and PEs in Ghana and, if so, how these wage and employment condition differentials have evolved over the course of the transition. The issues are important not only for understanding how privatization has affected workers and possibly contributed to growing wage inequality and dissatisfaction at the work place in Ghana but also for assessing whether wage-setting behavior and employment conditions differ between SOEs and PEs. While previous studies using firm-level data from mostly the manufacturing sector do show differences in wages, research on job satisfaction levels are the least studied aspects of privatization.

2.6 Summary and Conclusions

The objective of this chapter was to discuss the structure of the Ghanaian economy and an overview of the privatization process in Ghana. From our discussion, it is clear that the Ghanaian economy has gone through a traumatic period. Whatever gains the economy made in years shortly after independence in 1957 were eroded after 25 years of bad governance.

Three major sectors are recognized in the Ghanaian economy as contributors to GDP: agriculture, industry, and service including indirect taxes from foreign trade. Agriculture is the leading sector in terms of its share (37%) to GDP and employment. However, in 2000, the sector registered the least growth of 2.1% though its contribution to GDP was 36.7%. The Industrial Sector's share of GDP was 25% and a growth rate of 5% growth in 1999. This was an improvement of two per-centage points over the 1998 figure. The Electricity and Water sub-sector registered strong growth of 7.8%, followed by Construction, 5%; Manufacturing, 5%; and Mining and Quarrying, 3%. The service sector also accounted for 27% of GDP in 1997. The sector was the fastest growing sector in the economy, contributed 29% to GDP in 1999 and grew at 6%.

Ghana's divestiture/privatization program was launched in late 1980s but the procedure tends to be lengthy. In the privatization process itself, the DIC has a comprehensive manual, which sets out details of how new privatization are to be operationalized. The process is such that the DIC secretariat, from time to time, informs the government of a particular enterprise that has been slated for privatization. Once that has been done, decisions are made as to whether it will be divested as a whole or fragmented for the purposes of divestiture and the preferred mode of divestiture. The mode of divestiture is normally the sale of SOE's assets to private sector investors by competitive tender.

In terms of employment in the economy, the formal public sector has dominated Ghana's employment since independence but its dominance has been declining since the late 1990s. This was after the government had realized the importance of reducing the dominance of the public sector vis á vis the private sector to help improve wages and living conditions of workers. Privatization was thus launched in Ghana as part of this realization.

The privatization program has contributed to the macro economic stability of the country by providing needed funds for investment, relieving the government of a management of large public sector and reducing government expenditure in the sector. For example, overall public sector employment fell from 395,300 in 1985 to 189,300 in 1990 (see Jebuni *et al.,* 2001), reducing government payroll budget by 40% in 1992.

However, despite the gains of privatization, the process is beset with problems including the slow pace, transparency, and labor issues. To achieve some degree of transparency and accountability, publication of vital pieces of information were initiated including: the DIC's procedures; list of all SOEs listed and purchased; names and addresses of purchasers; for what amount; what has been paid up front; and the balance outstanding.

On labor issues, the government, supported by the World Bank, has instituted measures including investing in economic infrastructure and the private sector to serve as sources of employment for laid-off workers and the youth. According to privatization researchers, privatization can bring significant benefits to workers in enterprises operating in competitive markets where overstaffing is limited and where new owners are willing to maintain some excess staff through a win-win contract arrangement to keep the political and social peace. More importantly, privatization can bring benefits to other workers as new jobs are created with new investments and dynamic expansion.

The privatization of enterprises in Ghana is one of the most remarkable events of the structural adjustment programs, yet little is known about how privatization has affected workers, especially their satisfaction levels. Indeed the lack of the impact of privatization on employment conditions has exacerbated the fears and concerns of workers. Since theory had left a gap that empirical work has to fill, this research explores the effects of privatization on wages and job satisfaction in Ghana.

CHAPTER THREE

PRIVATIZATION: THEORETICAL CONSIDERATIONS

3.1 Introduction

The purpose of this chapter is to discuss the main economic explanations which have been offered to account for the effects of privatization of enterprises, and to present a theoretical model that is capable of analyzing how privatization affects workers' wages and job satisfaction. Literature on the rationale for privatization mainly centers on theory and empirical evidence on the public versus private efficiency debate, and its implications for corporate governance, management and workers. Theoretical literature mainly duels on three main economic theories: the property rights, the public choice and the Austrian school. Empirical evidence also looks at the hypothesis that SOEs are less efficient than private firms are.

Researchers in recent times have broadened the study on the private-public efficiency debate and have emerged with three broad approaches within the traditional theories (see Shirley *et al*., 1992). First, one set of theories looks at product market competition and argues that product market competition, rather than property rights, is responsible for enterprise performance. Second, another set of theories focuses on ownership and hypothesizes that compared with their private counterparts, who have set objectives to maximize profits, state use of SOEs for purpose other than to maximize social welfare have adverse effects on performance of SOEs in any market structure they operate. Finally, a third set argues that regardless of government's goal, private firms will be more successful than SOEs in addressing problems of corporate governance.

Since recent developments in theories are all embedded in the traditional theories, this chapter presents theoretical and empirical literature on privatization discussed within the traditional theoretical approach and it consists of the following sections. Sections 3.2 to 3.4 present the theoretical literature of privatization. These sections discuss the theories that explain the rationale for privatization in the first place, namely, the property rights theory, the public choice theory and the Austrian school. The discussions include some criticisms of the theories and reasons other authors advance against privatization. Section 3.5 looks at various empirical studies that have attempted to analyze the hypothesis that SOEs are less efficient than are private firms. A compilation by Galal *et al*. (1996); Shirley and Walsh (2000) of various studies that tested the above-mentioned hypothesis are also presented. In section 3.6, privatization and satisfaction are discussed, including arguments on the question: which ownership type is welfare maximizing? In section 3.7, theoretical models capable of analyzing how privatization affects workers wages and job satisfaction are presented. First, we apply the principal-agent theory to analyze how privatization affects the contractual relationship of owners and workers at various levels. Second, some of the studies that have used this particular principal-agent theory are discussed including various hypotheses. Finally, the institutional and socio-economic factors that are taken as explanatory variables for wages and job satisfaction are examined. Conclusions are presented in section 3.8.

3.2 The Property Rights Theory

The property rights theory is one of the theories that discuss public–private efficiency. It states simply that, when enterprises are publicly owned, individuals have weak incentives to take care of the enterprises and employees of such enterprises have weak incentives to work. Hence, these enterprises end up being inefficient. The differences in performance between private and public enterprises are thus, a function of their ownership arrangements.

The concept behind the property rights theory is the rights individuals have to use a resource. The rights justify the relations between people as they use a scarce good (where the term 'good', is used for anything that yields utility or satisfaction to a person). The underlying idea of the property rights theory is that various forms of property ownership give rise to different economic incentives and hence different economic results (Tittenbrun, 1996). The property rights theory concept does not only refer to the entitlements to use material things, but also to other human rights – the right to vote, freedom of speech, freedom of religion and association. The concept, therefore, has a broader relevance as it refers to anything that gives 'satisfaction' to an individual (see Furubotn and Pejovic, 1974).

In legal terms, the elements of right to ownership include; the right to use the asset (*usus*), the right to appropriate returns from asset (*usus fructus*), and the right to change the form and/or substance of the asset (*abusus*) (see Tittenbrun, 1996 p.3). The most important sub-component of the right of ownership is the right to bear the consequences of changes in the value of an asset. This ownership right enables the owner to transfer all or some of his/her rights in the asset to others at mutually agreed terms. Thus, depending on whom these rights are granted to, whether the rights are traded on the market such as stocks/shares or if one exercises his/her rights by voting, a distinction can be made between private and public property.

Normally, private property exists whenever an individual has the rights explained under the legal terms, and if the individual is allowed to make use of these rights through market and economic contracts or any other arrangements deemed appropriate and satisfactory to the individual. In case of public property, the individual cannot directly and entirely dispose of ownership. In a democracy, the individual can, however, influence the decision concerning the use of resources through the process of voting. In both democracy and authoritarian regimes with completely centralized rights, the individual can obtain a right of disposition through delegation, which the individual is, however, not permitted to use as he would choose.

The property rights school, pursues a viewpoint of 'methodological individualism' (see Tittenbrun, 1996). By "methodological individualism" the theory makes individuals the central role of its arguments by arguing that individuals make decisions to seek their interest or examine their 'utility within the limits imposed by the prevailing system of property relations' (see Alchian and Demsetz, 1973 and Tittenbrun, 1996 p. 2).

In market economies, however, the main role of private property is the incentive it creates. For example, the right to bear the consequences of changes in the value of an asset enables its owner to transfer all or some of the rights in the asset to others at mutually agreed terms (freedom of trade and contractual autonomy). Consequently, the right of ownership becomes an exclusive and unrestricted right only subject to attenuation (Tittenbrun, 1996). In other words, an owner is free to choose what to do with one's assets, only restricted by the dictates of the law. Consequently, owners will reap the benefits of their decisions and also bear the costs. The direct relationship between the owners ability to use property and bear the consequences of that decision create an incentive for them to seek the best use of their assets. They can transfer their resources to a more productive owner since the latter would be willing to pay for the resources more than the income derived from them by the present owner. Thus, according to the property right school, private ownership, under normal circumstances provides incentives for the resource to move to their high-valued uses.

According to Butler (1985), under the property rights theory, two major arguments substantiate the assumption that public enterprises are inefficient: first, the internal incentive and monitoring system of public enterprises are inferior to the one in private enterprises. Management (politicians) are less interested in the efficient business practices of public enterprises, but more in their own re-election, which depends only indirectly on the success of public enterprises, since most politicians have their constituents far removed form the day to day activities of public enterprises. Second, public enterprises are not always subject to the market and sometimes pursue objectives other than profit maximization. Therefore, changes in the value of public assets, brought by decision-makers, are dispersed throughout the community. For example, profits produced by improvements in efficiency and cost reduction in a public enterprise could be refunded to the public through tax reduction, however, such refunds are widely spread out across society and any individual benefits would be small. The relationship between each person's wealth and his own activities is therefore much weaker under public ownership. In addition, the incentives of individuals to monitor the behavior of decision-makers in public enterprises are also weak. Because property rights under public ownership are diluted, rewards and penalties are attenuated in contrast to private ownership, which concentrates rewards and penalties (Butler, 1985 p. 9). This implies that managers of public owned firms have greater opportunity to shirk and indulge in discretionary behavior than do managers of private companies.

Zeckhauser and Horn (1989) point out that there is greater room for discretion for managers in public enterprises due to the greater dispersion of ownership and the fact that competition for managerial jobs, while it exists in the public sector, is nevertheless much weaker than in privately owned corporations. In addition, efficiency and incentives for public enterprise managers are also weaker due to the difficulty of linking their compensation to financial performance. This is because in the absence of a share, it is difficult to find a measure of financial performance that is beyond manipulation to provide a valid basis for bonus payment (Zeckhauser and Horn, 1989, p.39). After all, profit making is mostly not the main objective of public enterprises.

In analyzing efficiency in private ownership, the property rights theory assumes modern economic activity involves cooperation (see Alchian and Demsetz, 1972) because it is only through cooperation between owners and management, management and workers, workers and suppliers and so on will the endeavor be successful. Therefore, the success of modern economic activity, like that of a limited liability company involves the cooperation of each team member.

The cooperation between team members is not devoid of problems. According to property rights theory (see Alchian and Demsetz, 1972) cooperation within a company or teamwork poses measurable problems, especially the compensation of individual team members. As the compensation cannot be easily determined on an individual basis, it follows that if the *'economic organization meters poorly, with rewards and productivity only loosely correlated, then productivity will be smaller, but if the economic organization meters well, productivity will be greater'* (Alchian and Demsetz, 1972 p.779). Thus in the absence of a sensitive reward system, employees will be tempted to 'shirk' or produce below their potential capacity. For example, in a modern company, despite the complexity of the organization, the right of each team member is specified within its reward system. These rights actually associate the modern classical capitalist firm with the owner-manager relationship. A corporation is an artificial being, invisible, intangible, and exists only in contemplation of the law. In other words, a corporation is a distinct legal entity, distinct from individuals who own it or its shareholders, and managed by an outside management. Its ownership rights are dispersed among the various shareholders of the corporation. The attenuated property rights of shareholders in the modern corporation translate into the managers' enhanced independence and ability to further their own interest at the expense of the owners' interest. In general, the greater the dispersion of ownership, the greater is the manager's opportunity to behave in a way 'inconsistent with the owner's welfare' (see Tittenbrun, 1996 p. 6). Alchian and Demsetz (1973), argue that the dispersion of the firm's resources, allows management to consume various utility-yielding goods such as posh offices, a large staff, cars, extended vacations and so on.

However, there are checks on these managers in the form of pecuniary and non-pecuniary rewards and outside labor market laws. For example, *'managers can move to new jobs, and they can compete for jobs by superior performance on present jobs'* (Alchian, 1977, p.231). Consequently, managers are motivated to seek high return for shareholders because their association with successful firms is likely to increase their own value in the managerial labor market. These forces are strong enough to protect both the shareholders' wealth and the tendency for resources to seek their higher-valued uses. As Pejovich (1990) puts it *'the bundle of property rights in a corporate firm provides some powerful incentives for top managers to pursue policies and decisions that tend to maximize the firms worth'* (see Pejovich, 1990 p. 50).

A recent development in the property rights theory is the issue of how to address the problem of corporate governance, which affect both private and public enterprises. In both enterprises, owners seldom manage the day-to-day operations of the enterprises and thus, are faced with different property rights arrangements, which lead to different penalty/reward structures. Most large, modern firms separate the functions of ownership and control, giving the rights to the firm's profits to the owners, who hire managers, thus making specialization in management and ownership work (see Fama and Jensen, 1983).

However, the separation of ownership and control has the undesirable property that decision-makers bear few of the consequences of their decisions. Since managers' personal objectives are different from those of owners, a conflict emerges between the two groups, with managers having every incentive to use their control to serve their own purposes at the expense of profitability and owner welfare (see for example various discussions in Berle and Means, 1932; Jensen and Meckling, 1976; Fama and Jensen, 1983; Stiglitz, 1993; Shleifer and Vishny, 1995; Lin, Cai, and Li, 1998; Kane, 1999; Shleifer, Vishny, La Porta, and Lopez-de-Silanes, 1999a) and recently the Enron, WorldCom and other corporate cases in the United States (see Box 3.1).

In the same way, powerful shareholders or owners can turn the pendulum to their advantage as it happened in Russia during and/or after privatization (see Box 3.2). For instance, at the time of privatization in 1992, reformers in Russia were aware of the weakness of the state bureaucracy and its low capacity to maintain the rule of law and regulate economic activity. They believed, however, that rapid economic liberalization would create a strong market order and consequently a competent state (Bruszt, 2000). Moreover, they believed that profit-oriented actors in the market, pressed by efficiency considerations, would create the missing institutions necessary for corporate governance. They perceived the low level of the accountability of government officials as an asset, believing that it allowed for the imposition of fast and radical reforms (see Bruszt, 2000). But they were wrong, for according to Bruszt (2000), powerful economic groups emerged that regulated access to markets, siphoned away resources from weaker segments of the economy. By the second half of the 1990s, it became obvious that the state was in troubles trying to maintain the rule of law, enforce contracts, uphold universal rights and regulate relations among economic actors (Bruszt, 2000).

Thus the problems of separation of ownership and control arise in both private firms and SOEs. Some argue that this fact alone eliminates the differences between public and private ownership. For example, Chang and Singh (1997) argue that SOEs and large private firms must both deal with unwieldy bureaucracies, and that both of the respective disciplinary mechanisms – political and economic markets – are imperfect, hence, private firms have no inherent advantage in corporate governance. Vernon-Wortzel and Wortzel (1989) make a similar argument, maintaining that the performance of any organization, public or private, depends on management culture and the clarity of goals and objectives. When the objectives are vague and contradictory, and the management culture does not value efficiency, then performance will decay (to them, the result is a patchwork of success and failure among both private and public firms). In the end, it is the presence of major methods of governance -- monitoring by owners, formal legal restraints, takeovers, and bankruptcy that impact on performance in both public and private property rights arrangements (see Shirley *et al,.* 1992; Walker and Vasconcellos, 1997).

Box 3.1: Enron: the case of conflict objectives

In 2002, Enron, an American energy firm was hit by a corporate governance problem that involved management, shareholders and workers. Management being aware of the deteriorating situation of the firm's finances cashed out in millions of dollars against the interest of workers and shareholders. Management knowing that the firm was in near bankruptcy sold all their shares in the firm before its final collapse. Shareholders lost the value of their shares and workers lost the value of their assets including their pension funds. The love of equity played a part in Enron's failure. The pay of senior executives and board members hangs on the performance of the company's shares- their reward for good performance aligned their interest with those of shareholders, supposedly. However, in practice, the alignment of interest was imperfect.

Equity related pay schemes tempted managers to seek to boost the share price in the short term, giving them the chance to cash out their stake, to the detriment of the company and its shareholders in the long run. Management made wide use of **'special purpose entities'** (SPES), vehicle that shifted losses and debts off the company's balance sheet.
Employees at the lower levels fared badly, by loosing their 401(k) retirement funds, which were invested in Enron's shares.

Source: The Economist, January 19, 2002

Box 3.2: The Russian Example

Three types of network developed in the Russian Federation. After the removal of the branch ministries, at the start of the radical reforms, entire sectors, firms, and banks and other financial institutions organized into networks of cross-ownership in order to stabilize their economic and political positions. These financial industrial groups were complemented by another; even more powerful type of group, organized mainly by Moscow-based banks with closer ties to the government. A third type of network was formed by regional and local state agencies. These agencies were stripped of their economic powers at the beginning of the reforms, but they took on more and more responsibility for coping with the social and economic dislocations caused by the policies of the center. The only option left to them was to regain economic control over the largest firms once under their control by buying those company's shares. Purchasing these shares allowed them to maintain and stabilize local and regional economies by using the old strategies of bargain planning and redistribution. This strategy of local and regional denationalization of property allowed the local elite to save the most profitable assets from buyouts by the increasingly predatory Moscow-based networks (FIGs).

The building up of powerful local and regional conglomerates improved their bargaining power with Moscow. State weakness contributed to the growth and growing power of these networks, in several ways. First, these conglomerates took over some of the functions of the state, substituting for the missing institutions of third-party enforcement. Second, the incapacity of the state to say no to powerful economic groups increased the payoff for forming large networks faster than other groups in order to increase their competitive power in the struggle first for rents and later for favorable regulations and policies. Third, the diversification of the revenue basis of the state left it at the mercy of the small number of FIGs that could still provide cash.

Source: László Bruszt (2000) in Michel Dobry (ed.) Democratic and Capitalist Transitions in Eastern Europe. Published by Kluwer Academic Publishers, 2000.

To sum up, the property rights arguments subscribe to the fact that ownership is characterized by exclusivity and transferability. The former aspect means that the owner is free to choose what to do with his/her asset, his/her freedom being limited only by those restrictions that are explicitly stated in the law. He/she reaps the benefits of his/her decisions and bears the costs. By establishing a direct relationship between owner's ability on how to use his/her property and bear the consequences of that decision, the exclusivity of ownership creates incentive for him/her to seek the best use for his/her assets. Similarly, the latter aspect implies that the owner has incentives to transfer his/her resources to a more productive owner (since the latter would be willing to pay for the resources more than the income derived from them by present owner). On both accounts, therefore, private ownership provides incentives for the resources to move to their highest-value uses. But how do these considerations apply to the real-world manifestations of this private ownership such as privatized enterprises. How does this type of business firms compare with state owned enterprises? After all, the most important ownership distinction is between public ownership and private ownership.

In answering these questions, our discussions in previous sections have revealed that differences in efficiency between PEs and SOEs are due to differences in ownership. The property rights theory argues that the more attenuated and dispersed property rights are, the less the holders/owners are motivated to use these assets efficiently. Particularly, private ownership, by concentrating power in the hands of owners, gives the owners incentives to take care of the assets thereby making them more efficient. Additionally, the theory explains that although ownership in private firms with a large number of shareholders is also dispersed, factors such as the threats of take-over, bankruptcy and other checks built into the management system of the modern corporation, mitigate the negative impacts of dispersion on efficiency.

According to the property rights theory, public enterprises are less efficient because they are publicly owned. In a study that may support this assertion, Galal *et al.* (1996) cite some reasons why SOEs are less efficient to include: SOEs being forced to operate with insufficient autonomy; not being able to pay enough to attract skilled professional; their inability to fire unskilled workers; lack of board of directors; and the absence of performance and evaluation systems.

However, recent developments in corporate America and Europe have cast doubts on the efficacy of the property rights arguments. It is clear from these recent developments that private ownership is no guarantee that assets will be taken care of. This can be attributed to the self-seeking interest of management and weaknesses in the checks and balances built into the system. Ambiguities therefore emerge as to the effective functioning of the economic system based on the property rights theory. The theory only provides an important aspect, which is the fact that differences in property rights lead to different penalty/reward structures (see Furubotn and Pejovich, 1972). For instance, in an owner-managed firm, the owner bears all the penalties and reaps all the rewards in contrast with a large limited liability firm where rewards and penalties are limited to the share of ownership. In a public enterprise, rewards and penalties are dispersed among the whole society and managers appointed by government to take care of these enterprises, do not always work for the interest of owners because of self-interest. Consequently, the question that emerges is: how do these ambiguities in the property rights theory affect workers wages and satisfaction levels, especially, in the face of powerful shareholders activities, failure of the checks on management in the private sector and some government's inability to control powerful shareholders and top management?

3.3 The Public Choice Theory

The 'public choice' school emerged in the late 1940s and 1950s in response to the growing sense that orthodox economics, through its acceptance of governmental benevolence, neglected the importance of the political process in shaping and implementing policy. According to public choice theory, analysis of tax raising, public expenditures and other forms of collective action cannot be made without a realistic consideration of the political process through which decisions are formulated. For instance, political and economic decisions can be made through a political process such as the "Common Law." The common law normally comprises of a constitution, laws enacted by or under authority of Parliament established by the constitution, any orders, rules and regulations made by any person or authority under the powers conferred by the constitution.

Most of the arguments supporting public ownership have stemmed from the theory of market failure (see Titternbrun, 1996). The theory has provided the rationale for government intervention in the public interest, which may take the form of public ownership. The task of welfare economics has been to devise the rules for efficient decisions and has taken for granted that public sector agents will behave according to orthodox neoclassical optimal rules set forth in welfare economics. That is:

- Public managers are only concerned with the public interest and consequently will behave in accordance with optimality rules
- Public managers behavior can somehow be perfectly monitored by the public or its representatives so that any would-be deviations from these rules are ruled out
- Citizens, politicians and civil servants are willing and able to control public managers

The public choice theorists argue that because of the general self-interest hypothesis, politicians, public officials and managers are seen as people also seeking their own interests. Like everyone else in society, they do not fully adhere to the optimal rules. Thus, the idealized notion of a fully informed and perfectly altruistic government devoted to the maximization of the people's welfare and perfectly responsive to the preference of its constituents has no grounds in reality (see Titternbrun, 1996).

The public choice theory also subscribes to the principle of 'methodological individualism' (Titternbrun, 1996), that is, viewing individuals as the ultimate decision-makers. The public choice theorists see the 'individual postulate' as the behavior of man that must be explained by a consistent set of motivational assumption, whether we want to analyze his/her behavior as a consumer, worker, voter, bureaucrat, or politician (see Sandmo, 1990 and Buchanan, 1969). Thus, this theory adopts the model of 'rational economic man' (for gender equality, this thesis will replace 'rational economic man' with 'rational economic human being' in subsequent references), who seeks his/her self-interest and also seeks to allocate his/her efforts in a way that maximizes his/her expected utility.

It is the behavior of public sector bureaucrats, which is at the heart of public choice theory. While they are supposed to work in the public interest, putting into practice the policies of government as efficiently and effectively as possible, public choice theorists see bureaucrats as self- interested utility-maximizers, motivated by such factors as: "salary, prerequisites of the office, public reputation, power, patronage...and the ease of managing the bureau." (Niskanen, 1975).

The public choice theory then assumes that an official at any level, be they in the public or private sector, "acts at least partly in his own self-interest, and some officials are motivated solely by their own self-interest." (Niskanen, 1975).

According to the public choice theorist, most public managers are concerned with gross revenue not profits. For they derive their revenue from sales and business activities, subsidies and subventions from government. Revenue maximization therefore leads inevitably to the expansion of output beyond the profit-maximizing level, thereby turning their enterprises into inefficient outfits. Public managers over-invest with short-termism. They have 'a preference for capital-intensive production processes' as well as an incentive to shift expenditures from future towards the present (see Niskanen, 1968, and De Allessi, 1969). The misallocation of resources due to biases inherent in decisions made by public managers is most of the time, not corrected by pressure from the government, for the government itself 'suffer from myopia' (Titternbrun, 1996), as a result of short-term tenure of its vanguards -- the politicians. Attempts to correct market failure by government often leads to government failure – inefficiency in the public sector, low productivity of public enterprises and corruption of government officials. Public ownership, therefore, according to public choice approach, is not welfare maximizing for a nation and workers at large. However, public managers who are the vanguards of public enterprises also try to maximize their expected utility.

Niskanen (1971) notes that the main motivations of managers in public enterprises are that they maximize three '*Ps*'- they want more pay, power, and prestige. According to other writers of the public choice theory, at least one *P* should be added, namely perquisites (see Tittenbrun, 1996; Tullock, 1976 and Savas, 1987**)**. To them, among the several variables that may enter the bureaucrat's utility function includes the following: salary, perquisites of the office, public reputation, power, patronage, ease of managing the bureau, and ease of making changes (Niskanen, 1968 and Tittenbrun, 1996). Hence, public managers often demand larger and nicer offices, more assistance, car and chauffeur, plagues and photographs of handshaking on the office walls, invitations to government functions and all associated status symbols (see Savas, 1987, Tullock 1976 and Titternbrun, 1996).

According to Downs (1987), public managers of SOEs are able to misallocate resources because of the peculiar situation they are in. They are normally in a monopoly situation and government sponsors are dependent upon them for not only output data but data on cost of production too (Down, 1987). Hence, they can restrict information and also implement projects for which they have self-interest, ignoring those that are not compatible to their interest. Their positions also restrict public monitoring since most citizens are uninformed and unorganized. The ignorance and passivity of the public creates fertile grounds for what is called 'rent seeking' (see Sustein, 1990). Sustein defines rent seeking 'as the dissipation of wealth through efforts to redistribute resources by way of politics, rather than the production of wealth through market' (Sustein, 1990 p. 70). For example, public sector trade unions exploit the rent seeking advantage to seek for more employment and more pay for members. To Sustein, it is not surprising that most state enterprises are over manned and carry excess capacity, leading to overall efficiency losses and wasted resources in the pursuit of these rents (see Sustein, 1990; Tittenbrun, 1996).

Under the same public choice theory, Fiorina and Noll (1978) presented a model that stresses the importance of the effect of politicians on the behavior of public managers. They stressed that it is politicians who have the upper hand of the managers of SOEs and pressure them into such decision making as pricing, investment, and employment which cater to the needs and interest of their local constituents so as to secure their own political gains (Fiorina and Noll, 1978). Thus, Fiorina and Noll's argument, combined with insights drawn from other public choice theory, adds to the list of impediments that inhibit the sound performance of SOEs. (No wonder authors like Cook and Kirkpatric, 1988 have argued that the most common cause of inefficiency in the public enterprise sector is political interference).

To public managers, under public ownership, political finesse, which leads to large subsidies and other concessions, is much more worthwhile than diligent search for ways to reduce cost. The lobbying of ministers and key public officials can bring higher gains than operational efficiency. To the public choice theorists, privatization is the answer to curtailing the powers of public managers, thus, *'by freeing an enterprise from the burden of political interference and non-market criteria, limits politicians ability to redirect the enterprise activities in ways that promote their personal agenda... "private ownership" clarifies the objectives of the enterprise and leads to enhanced economic performance*' (Titternbrun, 1996 p.61).

The need for collective action and the organization of government, stems from the realization that without collective enforcement of capitalist institutions, such as property rights, the anarchy which is likely to result would only serve to consign human life to one of chaos. As Friedmann (1974) demonstrated, in a world inhabited by imperfect people, collective organization is required to prevent 'bad' people from doing harm as much as enabling 'good' people to do good (noting, of course, that the 'good' and 'bad' people may be the same people). Whilst "good" (limited) governance is intimately linked with liberal values, the existence of government is itself not sufficient to assure the delivery and maintenance of the public good. However, the recent developments in corporate America and Europe also cast doubt on the notion of 'good' in the private sector. It is clear from recent developments that private ownership is no guarantee that assets will be taken care of because of the self-interest of management and weaknesses in the checks and balances built into the system.

If it is assumed that the players of the 'game of politics' and managers is similar in terms of being self-seeking and opportunistic to their fellow human beings, then constraints would be required (either electoral, constitutional, legal, or other). This will ensure that the political process and management are not used for exploitative purposes. In the absence of clear-cut answers from the theoretical perspective, what we are left is empirical tests of the theoretical arguments. Thus, in subsequent chapters, we review empirical literature on the impacts of the notion of imperfect behavior of public sector agents and private sector management effects on the efficiency of enterprises. The question is: Does ownership matter empirically?

3.4 The Austrian School Theory

The third theory on the public-private efficiency debate is the Austrian School theory that dates back to the 1890s. Carl Menger pioneered the theory with various economists like Friedrich von Wieser and Eugen von Boehn Bawerk, Mises and Friedrich Hayak being the notable scholars. The theory also rests on the assumptions of 'methodological individualism' and 'subjectivism'. By methodological individualism, the Austrian school theorists mean that individuals perform all actions and a social collective has no existence in reality outside of the individual members' action. Thus, the individual (albeit its characteristics) is the building block from which to build a picture of complex structures, including what is called social wholes (see Hayek, 1984 p. 201).

Collective actions or institutions are not the unintended consequences of individual actions but the product of design. Such phenomena as 'economic plan' or 'parliamentary laws' can be predicted since they involve individual actions in contrast to markets, and other spontaneous social products that involve the 'invisible hand' of market process (Hayek, 1984). According to the Austrian School, solutions to economic dilemmas are not to be found in the "visible hand" of government but in the "invisible hand" of market processes. Consequently, the role of government in economic development, especially the creation of public enterprises, is inferior to private enterprises since government role involves social collective action.

The Austrians view entrepreneureship as a crucial mechanism of the market process. Entrepreneureship means stepping beyond a given mean-ends framework; for it involves creating or altering the framework by discovering new ends and means (Kirzner, 1979: O'Driscoll and Rizzo 1985). Thus in the market context, entrepreneureship means discovering or creating possibilities that have escaped detection of other market participants. The nature of entrepreneureship contrasts with the automatic allocative model prevalent in orthodox economies of decision making viewed as economizing or using known resources in the most efficient manner to achieve given purposes (Kirzner, 1976b). The Austrian concept of entrepreneureship is *'a capacity to find out particular circumstances'* (Hayak, 1984) or *'alertness'* (Kirzner 1973). Thus the entrepreneur to the Austrian school is precisely someone who is incessantly alert; ready to exploit emerging profits opportunities.

The Austrian critique of public enterprise, hence, centers on the role or rather the absence of competition and entrepreneureship. In the Austrian tradition, 'the market is viewed as a process characterized by freedom of entry, non-parametric prices, and a profit-and-loss system' (Moldofsky, 1989, p.18). Public ownership restricts the role of all these elements. Public enterprises, most of the time, enjoy restrictions on entry and sometimes limitations on the amount of profit to make. This blunts entrepreneurial alertness, and reduces the likelihood that new profits opportunities will be noticed. The capacity to change and to innovate is impaired. Insensitivity to changes in demand patterns is likely to develop, and technical innovation tends to be stifled (Kirzner, 1978; Littlechild, 1989). The avoidance of all experimentation with new and untried methods means a tendency to prefer safety to risky enterprises.

In private enterprises, the opposite holds and the role of the entrepreneur cannot be divorced from the institution. The entrepreneur must be at liberty to withdraw his/her capital altogether from one line of production, sell his/her plant and stocks and be ready to go into other production. The entrepreneur is at liberty to break up the administrative unit because his freedom to dispose of property is 'necessary if the market is to be a register of varying pulls of all the changes in the data' (Robbins, 1934, p.159).

In relating the theory to the relative efficiency of private and public ownership, the theory argues that rational economic choice or decision-making requires a broad sweep of knowledge of prices. Prices require competitive markets if they are to be able to fulfill their informational functions, for it is by the competition between entrepreneurs trying to wrest from each other the material means of production and the services of labor that the prices of factors of production are formed (Mises, 1936). The theory goes on to state that competition necessarily requires private ownership in the means of production in order for private ownership to serve its function as a discovery procedure. For it is only through rival bidding of independent owners of the means of production that prices tend to have this informational function (Lavoie, 1985). Therefore, the continuous change over time, in taste, techniques, available resources, prices, plans and expectations demand that individuals be free to act and dispose of their property while using their knowledge of circumstances of time and place as they see fit (Moldofsky, 1989).

In market competition, producers get to know what consumers want and what they are willing to pay. In this process, resources are through capital, operational losses and gains, continuously reallocated to new preferable uses. In this manner, market competition secures that whatever is being produced will be produced by those who can do so in the cheapest way (Hayek, 1984). Thus, the competitive market can exist to fulfill its functions in the formation of prices and dissemination of economic knowledge generally only in the context of private ownership. Privatization, therefore as tantamount to the stimulation or introduction of competition, will lead to higher efficiency and responsiveness in better quality and variety of goods and service to people (see Littlechild, 1986; Titternbrun, 1996). In contrast, however, statutory barriers to entry of new firms with superior ideas and techniques of production characterize public enterprises. The benefits of free-market competition and feed back are therefore non-existent in such industries.

Public enterprises produce goods and services that are mandated by the government, whether profits or efficiency is realized or not. Consequently, public enterprises do not assure welfare maximization. However, recent developments in corporate America and Europe cast doubts on the efficacy of the Austrian school arguments. It is clear from recent developments that private ownership is no guarantee that the competitive market can fulfill its functions in the formation of prices and dissemination of economic knowledge since understatement of profits and productivity by private owners inflates prices and distorts the market. Ambiguities therefore emerge as to the effective functioning of the economic system based on the Austrian arguments. The answer to the question does ownership matter, leads then to empirical analysis. In subsequent chapters, we review empirical literature on the private-public efficiency debate.

3.5 Empirical Evidence

The above review does not lead to an unambiguous answer to the private-public efficiency and welfare-maximizing debate. Since theory has left a gap that empirical work has to fill, a review of evidence from empirical studies will shed additional light on the relative performance of public and private enterprises.

Empirical study of SOE efficiency began in the early 1970s, with a body of studies emerging to test the theoretical prediction made by Alchian (1965) that publicly owned firms would be inherently less efficient than private firms. Early work therefore compared public and private firms in the same industry, and focused on utilities and infrastructure in industrialized nations. Subsequent research looked at competitive industries and developing nations. However, various authors criticized these cross-sectional comparisons arguing that the differences due to ownership could never be isolated from other differences and factors in the economy such as trade liberalization and de-regulations in the economy (see Millward, 1982; 1983).

The wave of privatization in developed nations during the 1980's, particularly in Britain, opened a new avenue of empirical investigation. The comparison of same-firm performance before and after privatization then became possible. Privatization in developing nations and transition economies also brought more opportunities for comparative analysis in late 1980s (Galal *et al.*, 1996).

Empirical literature emerges with two sets of conflicting conclusions on private public efficiency. First, private enterprises are clearly superior (see Boardman and Vining 1989, p.17; Boycko, Shleifer, and

Vishny 1993, p.1; Bennett and Johnson 1979, p.59) and second, that no inferior efficiency is found in public enterprises but inefficiency of public enterprises stems from their isolation from effective competition rather than their public ownership per se (Caves and Christensen, 1980, p.974). Notable among those comparing divested and undivested enterprises is the study by Bishop and Kay (1988). The study compared the performance of a number of divested enterprises in the shipping, airline, gas, telecommunications, oil, and automobile industries with undivested enterprises in the coal, rail, steel, and postal sectors in the United Kingdom over the same period. The authors employed several performance indicators, including revenue, employment, profits and profit margins. They concluded that divested as well as undivested enterprise experienced improved performance. They left the question of casualty open to include the business cycle and the threat of divestiture as possible causes (see Galal et. al. 1996).

Even in less developed countries (LDCs), Millward (1988) also found no evidence of statistically satisfactory kind to suggest that public enterprises have a lower level of technical efficiency than private firms operating at the same scale of operation. Megginson, Nash, and Randenborgh (1992) analyzed the effects of ownership change on performance, using a panel of forty-one enterprises from fifteen countries. Their sample included enterprises that were sold through public offerings over the period 1981-89 and enterprises that stayed in the public sector or were private to begin with. Comparing pre-and post divestiture data, they found that the change of ownership correlates significantly with higher profitability, better utilization of human and physical resources, enterprise growth, and greater employment (see Galal *et al*. p. 16).

Table 3.1 presents a summary of empirical studies compiled by Shirley and Walsh (2000) from various researchers. Of the 52 studies included in Table 3.1, 32 studies conclude that the performance of private and privatized firms is significantly superior to that of public firms. 15 studies find either that there is no significant relationship between ownership and performance, or that the relationship is ambiguous. Five studies conclude that publicly owned firms perform better than private firms.

All the studies included in our table contribute to a better understanding of the effect of the change of ownership. The balance of studies however shows that enterprise performance improved after privatization (see Shirley, 2000). Private ownership has an advantage in both industrialized and developing nations, and this is more pronounced in the latter (see Table 3.1). The result is especially noteworthy for it leads to the question of whether there is a relationship between privatization and wages or privatization and job satisfaction of workers. It is to these matters that we will turn to in subsequent sections.

TABLE 3.1: Summary of empirical studies

	Study	Industry	Measure of Performance	Methodology 1 = pre/post privatization 0 = cross-sectional comparison	Country 0 = LDC 1 = transition 2 = industrialized
	Hill 1982	Textiles	Capital & labor prod	0	0
	Perkins 1963	Manufacturing	Capital & labor prod.	0	0
	Kitchen 1976	Garbage Collection	Cost	0	2
	Saves 1977	Garbage collection	Cost	0	2
Private Ownership	Edwards, Stevens 1978	Garbage collection	Cost	0	2
	Funkhouser, McAvoy 1979	Manufacturing	Cost, profits	0	0
Superior	Pryka 1992	Mixed	Cost, profits	0	2
	Majumdar 1998	Mixed	Efficiency	0	0
	Davies 1971	Airlines	Labor prod.	0	2
	Ros 1999	Telecom	Labor prod.	0	0, 2
	Peltzman 1971	Electricity	Price	0	2
	Bennett, Johnson 1979	Garbage collection	Price	0	2
	Dewenter, Malatatsa 1999	Mixed	Profits	0	2
	Boardman, Viring 1989	Manufacturing	Profits, labor prod.	0	2
	Boardman, Viring 1992	Mixed	Profits, labor prod.	0	2
	Ehrlich, Gallis-Hamonno, Liu, and	Airlines	Total Factor Productivity	0	0, 2
	Gupta 1962	Chemicals	TFP	0	0
	La Porta, Lopez-de-Silanes 1997	Mixed	Cost, profits, labor prod.	0	0
	Frydman, Gray, Hessel, Rapaczynski 1997	Manufacturing	Cost, labor prod.	1	1
	Ramamurti 1997	Railroad	Labor prod.	1	0
	Megginson, Nash, Randenborgh 1994	Mixed	Labor prod., profits	1	0, 2
	Pohl, Anderson, Claessens, Djankov 1997	Manufacturing	Labor prod., TFP	1	1
	Eckel, Eckel, Singal 1996	Airlines	Price	1	
	Claessens, Djankov, Pohl 1997	Mixed	Profit	1	2
	Boubakri, Cogget 1998	Mixed	Profits	1	1
	Dewenter, Malatasta 1999	Mixed	Profits	1	0
	D'Souza, Megginson 1999	Mixed	Profits	1	0, 2
	D'Souza, Megginson 1999	Telecom	Profits	1	0, 2
	Frydman, Hessel, Rapaczynski 1998	Manufacturing	Restructuring	1	0, 2
	Barberis, Beck, Shleifer, Tsukanova 1996	Retail	Restructuring	1	1 1
	Galal, Jones, Tandong, Volgelsang 1994	Mixed	TFP*/ welfare	1	0, 2

Ambiguous	Yunker 1976	Electricity	Cost	0	2
Or No	Kemper, Quigley 1976	Garbage	Cost	0	
Difference		Collection			2
	Atkinson, Halvorsen 1966	Electricity	Cost	0	
	Forsythia, Hocking 1980	Airlines	Labor Prod.	0	2
	Yarrow 1986	Mixed	Profits	0	2
	Kole, Mulherin 1997	Mixed	Profits, labor prod.	0	2
	Tyler 1979	Mfg.	TFP	0	2
	Cavas, Christensen 1980	Railroad	TFP	0	0
	Foreman-Peck, Manning 1988	Telecom	Labor Prod.	1	2
	Adam, Cavendish & Mistry 1992	Mixed	Labor Prod.	1	2
					0
	Frydman, Gray, Hessel, Rapaczynski	Manufacturing	Labor Prod.	1	
	1998	Mixed	Profits	1	1
	Bishop, Kay 1989	Mixed	Profits, labor prod.	1	2
	Martin, Parker 1995	Mixed	Profits	1	2
	Boubakri, Cosset 1998	Electricity	TFP/welfare	1	0
	Newbury, Pollitt 1997				2
		Electricity	Cost	0	2
Public	Meyer 1975	Water	Cost	0	2
Ownership	Mann, Mikesell 1976	Supply			
		Electricity	Cost	0	2
Superior	Nouberg 1977	Electricity	Allocative + tech	0	2
	Fare, Grosskopf, Logan 1985		Efficiency		
		Electricity	Cost	0	2
	Pescatrice, Trapani 1980				

* refers to total factor productivity

Source: Compiled from Galal et al. (1996); Shirley and Walsh (2000)

To sum up, two sets of conclusions clearly emerge in the private-public efficiency based on the empirical evidence. The first finds private enterprises superior whilst the second draws a different conclusion (ambiguity or no difference). For example, in the first case, Boardman and Vining (1989) state that robust evidence exists to show that state enterprises and mixed enterprises are less profitable and efficient than private corporations (see Boardman and Vining, 1989). Boycko, Shleifer, and Vishny (1993) also state that there is universal agreement that privatization improves efficiency. Bennett and Johnson (1979) using empirical methods found that the same level of output could be provided at substantially lower costs if output were produced by the private rather than the public sector (see Bennett and Johnson, 1979, p.59).

The second body of literature draws rather different conclusions; that no differences in efficiency between SOEs and PEs. For example, Caves and Christensen (1980) noted *"we find 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 form their isolation from effective competition rather than their public ownership per se"* (Caves and Chritensen, 1980 p. 974).

In reconciling the two set of conclusions, Galal *et al*., (1996, p.11) made a subjective synthesis of the theoretical literature and came out with the following conclusion about the effects of public-private differences:

- *Small private enterprises facing competitive output and input markets are unequivocally* *superior to large public enterprises facing monopoly markets*

- *Small public enterprises facing competitive output and inputs markets can do no better than private enterprises in the same circumstances, but can do considerably worse.*
- *In large monopoly markets the predictions of theory are ambiguous, depending on the institutional details assumed (how the private sector is structured and regulated, and how the public sector is managed and motivated).*

The first statement is clearly irrelevant for policy purposes since it does not reflect a 'true choice' (Galal *et al*., p. 11). Thus, evidence or arguments in favor of private enterprises that amount to providing this proposition are equally not important. The second proposition justifies mass privatization programs in socialist economies and the privatization drive in other developing countries where the public sector is over stretched. For in certain socialist countries, the public sector accounts for more than 70% of the economy. In most developing countries, the share of the public sector was over 30% of GDP in the 1980s. It is however abundantly clear that the second proposition is of minor importance in most mixed economies where the bulk of public enterprises output is sold in imperfect markets and where the public sector accounts for less that 6% of GDP. In such economies, it is the last proposition that is of crucial importance but empirical evidence discussed so far on that is also inconclusive. Our review found greater ambiguity about the merits of private ownership and privatization in theory than in the empirical literature.

Regarding workers productivity and efficiency, most of the empirical studies cited in Table 3.1 find that most firms do better and all firms at least do better after privatization in terms of workers' productivity and efficiency (see for example, Aharoni, 1986; Boardman and Vining, 1989; Millward, 1988; Savas, 1974, 1977; Stevens, 1978; Ahlbradt, 1973; More, 1970; Christiansen and Stackhouse, 1987; Leeds, 1987, 1988; Wilson, 1987; Galal, Jones, Tandon and Vogelsang, 1996; Megginson, Nash and Randenborch, 1992; La Porta, Lopez-de-Silanes, 1997). However, the direction in which workers productivity and efficiency are translated into wages and satisfaction levels remains inconclusive. The effects of privatization on income, wealth distribution and satisfaction are the least studied aspects of privatization (Kikeri and Nellis, 2002). Hence, privatization has become highly controversial and politically charged. First, there are those who claim that privatization do not produce financial and operational benefits, or at least not enough to offset the social dislocation it causes. Second, there is an acute and pervasive fear that privatization leads to layoffs, first in the short-term when the firm divests, and then in the long run in the economy at large. Third, there is a widespread belief that even if privatization enhances efficiency, the bulk of its benefits accrue to a privileged few – shareholders, managers, domestic or foreign business interest, and those connected to the political elite – while the costs are borne by the many, particularly consumers and workers (see Kikeri and Nellis, 2002).

What is of interest to this study is the wage and job satisfaction outcome of privatization as a result of the widespread disbelief in the benefits of the privatization process at the micro level. In anyway, wages and job satisfaction will differ under PEs and SOEs. Thus, the question then is: under which ownership type will workers fare better?

3.6 The Principal-Agent Theory as a Unifying Model

The theories discussed in sections 3.2-3.4 can be summarized using the principal-agent framework. Principal-agent models have been employed in many different academic fields in order to explain relationships among actors including employers (principal) and employees (agents); consumer (principal) and producer (agent); and in various political science sub-fields, in which bureaucrats are agents of the executive, or the governments of third world countries as agents of international lending institutions, and so on. Within these contexts, the theory has been successful in explaining much of the reality of the relationship between certain sets of actors.

Research based on agency theory is normally organized into two streams: 'positivist-agency theory' and 'principal-agent theory' (see Walker and Vasconcellos, 1997). These two streams are similar in the way they both identify a principal and an agent and focus on the contract between the two. However, they are dissimilar in their style of applications. Principal-agent theory tends to be more quantitative than positivist-agency theory. The positivist stream of research leads to information and incentive-based resolutions to conflicts between management and owners. The principal-agent stream of research leads to specific contract specifications that are most efficient under a particular scenario, for example, a wage contract between management and workers.

Both streams of theory however can contribute to privatization study. The principal-agent stream can be used to analyze and construct a framework for resolving regulation issues between government and enterprises (see Barron and Myerson, 1982), whilst the positivist theory can help in regulatory issues after privatization, especially, when enterprises are monopolies prior to their privatization. For example, the positivist stream can be used to resolve issues like how public utilities, which are mostly monopolies can be regulated.

Agency theory is very useful in analyzing contractual relationships between groups. Vickers and Yarrow (1991, p.119), for example, list the major groups that find themselves in either a principal or agent role as a result of privatization to include 'political decision makers, consumers, employees (including management), new shareholders, tax payers, suppliers of inputs other than labor, suppliers of privatization services like financial institutions responsible for handling the sale, recipients of advertising revenues, consultants and lawyers.'

Agency theory says, "because people pursue their own interests, conflicts of interests inevitably arise over at least some issues when they engage in cooperative endeavors... [as a consequence] the parties have strong incentives to find ways to reduce the "agency costs" of such cooperation." (Jensen, 1994). An agency relationship, according to Eggertsson, "…is established when a principal delegates some rights…to an agent who is bound by a (formal or informal) contract to represent the principal's interests in return for payment of some kind" (1990:40). In all contracts we find a hierarchy of control at all levels, for example, from ownership to management to workers[10]. Arguments based on the principal-agent problems relating to privatization draw heavily from Alchian (1965). He argues that the key difference between public and private firms is the incentive and ability of owners to monitor managers. To Alchian, ownership in private firms is concentrated (shareholders only) relative to the public sector, and ownership shares can be sold. Hence, private owners have the incentive to monitor the performance of their managers, and to align the managers' interests with their own. In public firms, ownership is the hand of all citizens and theoretically, shares of ownership may not be sold. Therefore, owners of public firms not only have little incentive to monitor their managers, but even if there were such an incentive, it would not be effective since those appointed by public owners to manage firms are not very much interested in efficient business practices of public firms but most of the time their own re-elections. Alchian therefore, concluded that due to these differences of monitoring, public firms would have lower internal efficiency than private ones.

One of the earlier researchers who used Alchian's arguments in privatization research was Rees (1988). He questioned whether privatization of an SOE would produce greater allocative efficiency than when the enterprise operates as a regulated or unregulated monopoly. Bös and Peters (1991) followed up Ree's analysis and modeled the privatization of an SOE in their efforts to research the regulation problem. Specifically, they modeled the behavior of a price-setting firm that is initially public and then is completely privatized by applying Laffont-Tirole (1991) approach, as specified in equation (3.1). Since privatization changes the objectives of the firm, typically from multiple goals to a one-dimensional objective, i.e. from a weighted sum of consumer and producer surplus to profit, the authors specified the following objective functions:

$$\text{Public firm: max } W = \lambda . S(p) + (1 - \lambda) . \Pi, \tag{3.1}$$

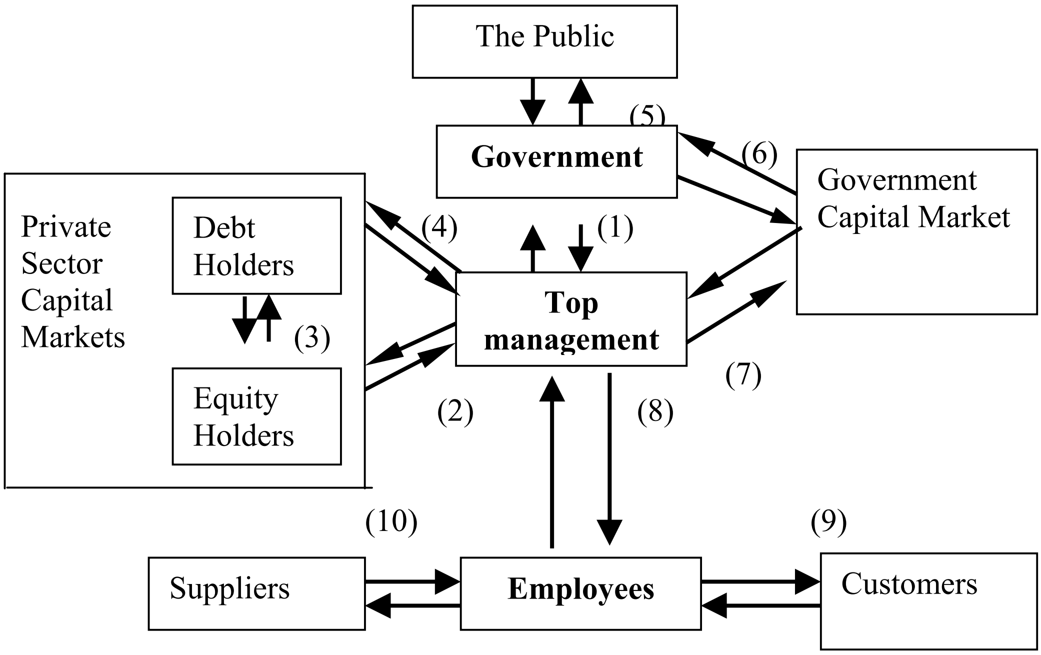
$$\text{Privatized firm: max } \Pi \tag{3.2}$$

where *S(p)* is defined as consumer surplus, Π is defined as profit and λ is a weighting factor. *S* and Π are two objectives combined by the weights, λ. In equation (3.1), the smaller λ the less the government is interested in consumer surplus and the more in getting some profit from the firm. Equation (3.2) depicts a typical private enterprise that maximizes profits.

The authors assume that the public and the privatized firms face the same economic environment: the same demand function and technology. The private owners are assumed, however, to be investors whose informational status compares favorably with that of bureaucrats, who are supposed to audit the public enterprise. Moreover, private investors require much information about the enterprises before investing, e.g., past performance, share value and profits. Privatization, therefore, means that the management faces a better-informed principal than before.

Another relevant model relating to ownership and efficiency was developed by Vickers and Yarrow (1991) following Shapiro and Willing (1990). In their model, the authors assume that under public ownership, a minister or government bureaucrat, maximizes an objective function that is a weighted average of social objectives and his or her personal agenda. The personal agenda could consist of a variety of elements: redistribution to favored interest groups, high wage and employment levels in particular enterprises or sectors, and so on[11]. Under private ownership, by contrast, the firm is run as a profit maximization enterprise (PME) and the objective of the firm is to maximize profit or owners wealth. However, there might also be external effects on social objectives from the activities of the firm, especially when the firm is a huge one and control a large percentage of the market. These activities may include effects on consumer surplus if the firm has market power, market distortions. Various principal agent relationships change as a consequence of privatization. Figures 3.1 and 3.2 present illustrations of the principal-agent relationships before and after privatization using the schematic presentation developed by Walker and Vasconcellos (1997 pp. 73 -75). The principal-agent relationships are numbered from 1 to 10 for SOEs and from 1 to 7 in PEs. A relationship is observed when two distinct interacting parties are identified, one party compensating the other for doing something on its behalf. The two-directional arrows symbolize a contract between two parties, one the principal, the other the agent. Contracts can either be written or oral. In Figure 3.1 SOEs have two important principal-agent relationships. One relationship is the one between the government (principal) and top manager (agent). The second is the principal-agent relationship between top management (principals) and employees (agents). All the contracts and relationships are very important for they affect the outcome of any decision by owners, top management, and employees. For example, even contract #7 between the top management and government capital markets (which might seem far removed from the remuneration of employees) can have an effect on contracts #8, i.e., the contract between top management and employees. Contracts between private sector capital markets are not very relevant to SOEs since all required financing would come either directly from the government in the form of transfers, or from government subsidized institutions[12].

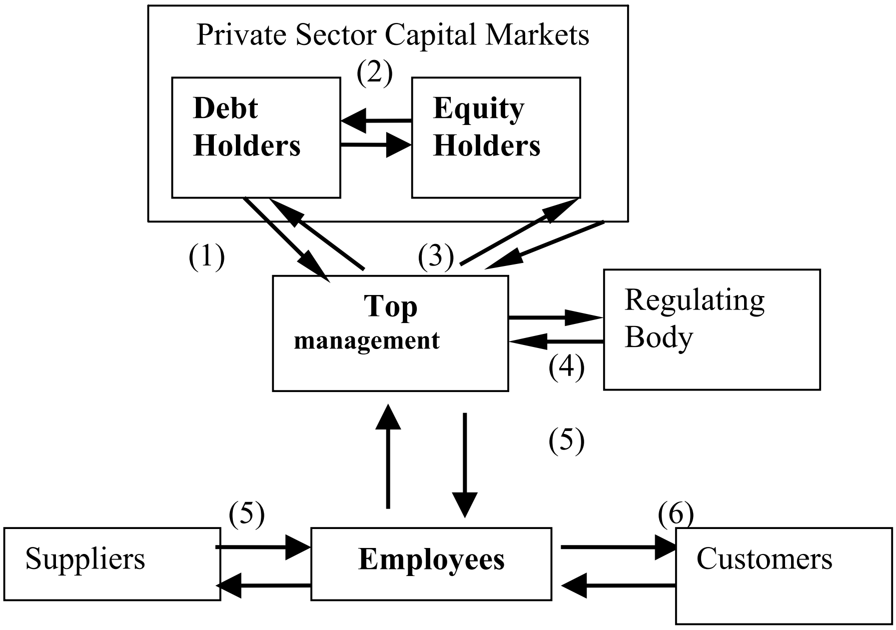
Figure: 3.1 Principal-Agent Relationships (SOE)



Source: Adapted from Walker and Vasconcellos (1997)

Figure 3.2 depicts the major principal-agent relationships in a privatized firm. PEs have two important principal-agent relationships. One relationship is the one between debt holders and equity holders (principal) and top manager (agent). The second is the principal-agent relationship between top management (principals) and employees (agents). The figure is constructed assuming all property rights are sold to the private sector, and that future financing will come entirely from the private capital markets. In privatized enterprises, there is a termination of the contract between top management and government (contract #1 in figure 3.1) and a new contract formed between top management and providers of capital (contracts #1, #2, #3 in figure 3.2). The principal-agent relationship in terms of ownership is now between top management and equity holders and debt holders for ownership shifts from government to them during privatization (Walker and Vasconcellos, 1997).

Figure: 3.2 Principal-Agent Relationships after Privatization



Source: Adapted from Walker and Vasconcellos (1997)

In enterprises, the principal-agency relationships are subject to dynamic changes during and after privatization. During privatization, the greater changes to the principal-agent relationship between the government (the principal) and the management (the agent) will likely occur on the principal side of the relationship since management replacement is not a necessary condition for privatization. After privatization, the new set of owners becomes the new ‘principals’. The differences in ownership therefore result in a very different ‘principal’ in terms of control (Walker and Vasconcellos, 1997). For instance, privatization is expected to remove institutional constraint such as political interference and multiple objectives. In particular, it is expected to narrow the objectives of the enterprise to profit maximization. Private owners, even if multiple, are expected to pursue this objective. For the same reason, they are expected to be able to monitor managers and also to provide incentives to management to perform well. Finally, management itself is expected to face fewer political and bureaucratic constraints in pursuing profit maximization. As a result, efficiency in PEs is likely to be enhanced (see Galal *et al,.* 1996).

Another important change that occurs after privatization is the source of capital. In PEs, the main source of capital for investment is either equity or debt (see Figure 3.2)[13]. An enterprise that uses more debt than equity for it activities is said to be highly leveraged, whilst an enterprise that uses more equity than debt for its activity is said to be all-equity enterprise. Barnea *et al.* (1985), discussing the agency problem of over/under investment noted that particular agency problems hinge on the premise that a leveraged enterprise will make fewer optional investment decisions compared to an all-equity enterprise. Theoretically, all-equity enterprises will always invest in a project with positive net present value. On the other hand, an enterprise carrying unusually high debt might be tempted to invest only if a project does not increase its debts.

Walker and Vasconcellos (1997), argue that there are more common scenarios where an enterprise would over/under invest than the extreme policy of enterprise investing only when cash flows exceed the enterprises debt as discussed above. For example, they argue that a top management might be cautious about investing in projects that are not profitable enough and therefore could eventually reflect poorly on his judgment, even if the project appears to meet the enterprise's hurdle rate or its minimum risk tolerance rate. Thus, if an executive begins to make investment decisions based on his expected gains and losses to his own human capital rather than the enterprises' overall value, this behavior could lead to under-investments (Walker and Vasconcellos, 1997).

Equally, private enterprise executives might have incentives to follow a policy of over-investment in a situation where executive compensation is heavily an option-based remuneration -- remuneration based on the number of successful deals struck by management. Under this scenario, the management will be encouraged to invest even beyond the enterprise optimal level. Theoretically, this incentive leads to risk shifting, which in turn leads creditors to discount debt issued by an enterprise, a phenomenon that increases cost to the enterprise.

Thus, both over/under-investment problems are derived from differences between the executives' and owners' tolerances for risk. Under privatization, owners monitor management closely and the threat of bankruptcy forces management to make prudent investment. In SOEs, without credible threat of bankruptcy, SOEs management is often less limited to engage in reckless investments, since most objectives of SOEs are ambiguous from the beginning. Even in situation where bankruptcy is used to control SOEs, the choice depends on specific policy choices of government. Evidence abounds that policy choices often reflect political, rather than economic priorities (see Kornai, 1980; Kornai and Werball, 1983). For example, in socialist economies, Kornai (1980) finds that because loss-making SOEs will be subsided by government or government-directed banks, the SOE managers had little incentives to improve efficiency or avoid unprofitable investments.

3.7 Impacts of Privatization on Wages and Job satisfaction

3.7.1 Impact of privatization on wages

We start with the Laffont and Tirole's (1991) models of labor-managed enterprises to analyze management and workers contractual problems before and after privatization. A labor–managed enterprise (LME) differs from a profit-maximizing enterprise (PME) in its objective function. While a PME caters to the interest of the shareholders, an LME serves the interests of its workers. These interests may include job security and wages (see Svejnar, 1982, Bonin and Putterman, 1987). An SOE is seen as a hybrid between an LME and PME, with its objective function reflecting a compromise between the interest of workers and those of shareholders. In a PME, the wage rate can be derived from the profit function. A PME's profit function Π can be defined as:

$$\Pi = PF(L) - wL \tag{3.3}$$

where P is the output price (supposed to be constant), w denotes the wage level, L is labor input, $F(.)$ is the production function. A PME maximizes Π with respect to L, taking the market wage as given. This yields the familiar first order condition:

$$w = PF'(L) \tag{3.4}$$

where $F'(L)$ denotes the derivative with respect to L. Equation (3.4) implies that workers are employed up to the point where the marginal product of labor is equal to the market wage.

On the other hand, an SOE's profit function can be defined as:

$$\Pi = PF(L) - wL + T \tag{3.5}$$

where T is a net transfer from the government to the SOE. Positive transfer offers the opportunity to pay higher wages, to recruit new ones at the prevailing wage, invest in safety measure, increase training opportunities to workers. T could also be negative thereby having a depressing effect on wages, work safety investment and training opportunities. Privatization reduces (3.5), the SOE's profit function, to the private sector objective function (3.3). This means that $T = 0$ (movement from public to the private sector or a change in the public sector objective since we assume that public and private sector objectives diverge).

Because privatization may work in opposite directions, the impact of privatization on wages is theoretically ambiguous. If the owner (state) puts relatively little weight on profit maximization but instead on welfare, wages may be higher than in the case where the emphasis is on profit. On the other hand, greater emphasis on profits may reduce wages in privatized enterprises. In SOEs, if transfer payments in the form of subsidies from government to SOEs are high, SOEs can afford to pay higher wages. Conversely, if SOEs are made to pay taxes and dividend to government thereby depressing *T*, wages may be lower. Thus, theoretically the impacts of privatization on wages show that privatization may either increase or decrease wages depending on the assumptions made regarding the enterprise's objectives, market power, worker bargaining power, and the nature of wage determination in the enterprise (see Brainerd, 2001, Haskel and Szymanski, 1993).

Several studies to date have analyzed state-private sector wage differentials in both industrial and transitional economies, but not much have been done in sub-Saharan Africa. Two of the earliest studies in transitional economies are those of Flanagan (1995) and Vecernik (1995). The authors analyzed changes in wages differentials in the Czech Republic before and after the introduction of market reforms. Both conclude that private sector wages exceeded state sector wages in 1993 and 1994 after five years of privatization. They also find average wages are higher in newly privatized state firms than in state owned enterprises, but this differential disappears once they control for differences in education and experience between the two types of ownership.

In Poland, Rutkowski (1996) using official published data based on employer surveys from 1987 to 1993 concludes that private sector pay exceeded state sector pay in Poland in 1993 and the wage distribution in the private sector was more dispersed than in the state sector. Newell and Socha (1998) use household survey data to compare changes in the Polish wage distribution between 1992 and 1996. While their analysis confirms that private sector monthly wages were higher than the state sector wages in Poland in 1992, by 1996 this advantage had disappeared and the state sector wages were slightly higher than private sector wages. The authors also show that if they control for the difference in hours between the state and the private sector, the private sector wage premium in Poland in 1992 disappears. Lehmann and Wadsworth (2000) document a 7% wage premium in private sector firms in Poland during the mid-1990s, controlling for regional and demographic characteristics of workers. The differential in the Poland studies was due to hours worked in PEs and SOEs. Their study also examined the private-state sector wage gap in Russia using the Russian Longitudinal Monitoring Survey (RLMS) and found a private sector wage premium around 13%.

Goerke (1998), for example, shows that if state enterprises pay efficiency wages and if privatization increases the weight given to profit maximization in the firm' objective function, then privatization will lead to increase in wages. Haskel and Szymanski (1993), in contrast, model privatization as a reduction in both union bargaining power and the firm's market power, so that privatization results in lower wages for workers. Brainerd (2001) also used the RLMS to determine whether there is a wage differential between SOEs and PEs in Russia between the period of 1993-1998 and if so, how this wage differential has evolved over the course of the transition. The results of her study indicate that workers in PEs indeed earn a positive wage premium relative to their colleagues in SOEs. She also found evidence that suggest that the distribution of skills and the returns to skills were similar between SOEs and PEs. Overall, however, there was little evidence that wage setting in PEs has changed to provide greater rewards for more productive workers. A more promising indicator was the narrowing of the private sector wage premium over the 1990s, which might reflect reduced rents, greater competition, and expansion of the private sector over the period.

Empirical evidence from Latin America also suggests that employees who remained with enterprises after privatization often experienced wage improvements (see for example, La Porta and Lopez-de-Silanes, 1997 and Kikeri, 1998). After privatization, employers shed excess labor and increase wages of retained employees in exchange for increased worker efforts. The layoff appears to be a consequence of excess employment by SOEs rather than need to roll back generous labor contracts. In Argentina for example, real wage of employees of Entel and Buenos Aires water concessions increased by 45% for workers in 3 years after privatization (La Porta and Lopez-de-Silanes, 1997). Anecdotal evidence from Africa also shows that salary levels in privatized textile and printing companies increased to 10-15% above industry standard after enterprises were privatized (Kikeri, 1998).

To conclude, regarding wage differentials between PEs and SOEs, labor economics literature gives several reasons to expect that PEs wages might exceed wages of workers in SOEs (see among other, La Porta and Lopez-de-Silanes, 1997; Galel *et al*., 1996; Kikeri, 1998; Haskel and Szymanski, 1993). First, if workers perceive that job security is more tenuous in PEs than SOEs, they may demand a wage premium for work in the privatized enterprises. Second, PEs may need to pay higher wages to attract workers from SOEs, assuming the PEs are reluctant to hire from the pool of unemployed. Third, PEs may also pay efficiency wages to induce greater effort among the workforce.

Literature tends to a positive impact of privatization on wages but given the transitional nature of SOEs in Ghana as a result of a change in government's objective to privatize, what will be the impact of privatization on wages. The question then is: *do wages increase with privatization?*

3.7.2 Impact of privatization on job satisfaction

It is difficult to predict, *a priori,* the impact of a reducing T or $T = 0$, on job satisfaction in SOEs for it depends on the assumptions made regarding the enterprise objectives, enterprise market power, worker bargaining power and the nature of employment levels in the enterprise. It is possible that in the new, more open, competitive environment that new PEs find themselves, attempts to cut costs through lower employment could result in worsening employment conditions. These could include worsening health, safety and high employment levels, resulting in "sweatshop" economy (see Kambhampati and Howell, 1998). On the other hand, it is equally possible that in their need to compete, enterprises could increase labor productivity by increasing the capital-intensity of production, which might lead to improvement in employment conditions. For instance, the improvement in working conditions might also be occasionally undertaken by enterprises to directly increase the productivity of workers and retain workers through free transportation and housing.

Theoretical literature has so far demonstrated that ownership per se has effects on the performance of enterprises. However, ambiguities exist as to which ownership type is welfare maximizing or will provide the highest level of satisfaction at the work place -- with satisfaction denoting a preponderance of positive affects over negative affects (Bradburn, 1969)[14].

To analyze the ambiguities, we begin by analyzing government behavior in the enterprise market. Our review of literature finds two sets of assumptions emerging in government's behavior in the enterprise market. The first assumption is that political markets are efficient such that rational government will have the incentives to maximize social welfare. The second assumption is that political markets will be inefficient and that government actors, such as bureaucrats or politicians will be able to maximize their own utility - in the form of votes, income, favors and so on against the common good. In this environment, government officials promote distortionary and inefficient practices in SOEs in order to reap political and economic benefits (see Vickers and Yarrow, 1989; 1991; Shleifer and Vishny, 1984).

In the first case, it is assumed that when political markets work efficiently, bureaucrats and politicians act as good agents of the society, and thus, bureaucrats and politicians seek to maximize social welfare or sum of consumer and producer surplus (see Vickers and Yarrow, 1989). In addition, when there are market failures, SOE managers can produce more efficient results than can managers in the private sector. That is, by abandoning profit maximization in favor of social welfare maximization, an SOE (being a monopoly) can adjust prices and output to approximate the competitive equilibrium (see Shleifer and Vishny, 1984). In the same way, Vickers and Yarrows (1989) argue that if industries with major externalities are dominated by SOEs, public mangers can adjust prices to reflect the true social cost of the product. Wintrobe (1985), however, argues that SOE goals also include the promotion of social welfare in ways beyond the market failure phenomenon. He argues that the benefits of these social goals outweigh the resulting loss of efficiency. These benefits include facilitation of industrialization through central planning, acceleration of technology transfer, increased employment, reduced inequality, regional development and increased security or 'autonomy.'

In developing counties, the promotion of SOE development, apart from the accumulation of productive assets, was based on Wintrobe arguments (see for example, Sacristan, 1980; Labra, 1980). Thus, these countries were more concerned with the social benefits of SOEs than economic cost. Vickers and Yarrow (1991), however, point out that the developing world arguments fail to consider other ways of achieving social goals besides public ownership. They stress that most studies on developing world ignore the arguments for regulating private natural monopolies and other alternative methods of addressing income inequality, provision of public goods and macro economic stabilization. Another challenge on welfare and privatization was raised by Vickers and Yarrow (1991) along the lines of SOE performance in the environment of where the government places higher emphasizes on the welfare interest of the public (that is a "publicly interest government"). In this situation, the government may place more emphasis on consumer surplus than on producer surplus because consumers have more voting power than do producers, or because transfers to low-income consumers are deemed politically desirable. Presenting a point against Vickers and Yarrow, Schmidt (1996) raises a related point by showing that a benevolent government may over-subsidize SOEs relative to private enterprises. For if a government always chooses a level of production that matches social cost and social benefit, the SOE manager will have no incentive to reduce costs, but would rather require greater subsides.

In the second case, there is empirical evidence that SOE managers and politicians do in fact interact in ways that benefit themselves and to some extent workers at the expense of general "good." Shleifer and Vishny (1994) catalogue numerous cases of SOE inefficiency that result from political meddling. These inefficiencies usually take the form of excess employment, above-market wages, investment in projects that benefit politicians rather than consumers, and allocative distortions resulting from skewed pricing schemes. Gray *et al*. (1998), focusing on state ownership in transition economies find that politicization prevents SOEs from restructuring. In particular, they show that political pressure prevents retrenchment and layoffs. Drawing on this literature, with its emphasis on the deals made between politicians and SOE managers, it is possible to define the conditions under which politicians will use SOE operations to meet political goals. First the degree of such a behavior depends on the extent of imperfections in the political markets. The more heavily distorted the political market, the farther a politician can deviate from social welfare maximization (see Shapiro and Willing, 1990; Jones, 1985). Another factor influencing the degree of political intervention is the nature of the institutional relationship between the government and the enterprise. If the enterprise is run as a department of a ministry, with its top management directly appointed by a minister, then political intervention will be easy and common. On the other hand, if the government acts as the dominant shareholder of a largely independent enterprises, acting through the board of directors, political intervention may be possible but is more costly and more transparent (see among others, Galel, 1991; Shirley and Nellis, 1991; Shirley and Walsh, 2000). A third determinant of political intervention is the prevalence of corruption.

Since bribes can facilitate the deal-making process between politicians and SOE managers, political intervention will be easier in an environment where such activities are commonplace.

Research has shown that one major cause of the delay in the privatization of large–scale enterprises, especially, in developing countries is the fear of the impact on labor (see Kikeri, 1998). Many policy makers fear that privatization will cause major job losses, loss of income and benefits to affected workers as new owners of privatized enterprises shed excess labor and reduce benefits to improve efficiency. According to Kikeri (1998), these fears have led state enterprise workers and organized labor to become among the most vocal and organized opponents of privatization, often threatening or taking action to block or delay privatization. In general, because of too many employees in SOEs, privatization initially involves retrenchments and laid-off. Campbell-White and Bhatia (1996), for example, report excess employment in several privatized enterprises in selected African countries (see Table 3.2). Shaikh (1996), La Porta and Lopez-de-Silanes (1997) and Tansel (1996) all report massive lay-off of workers as a result of privatization in Argentina, Mexico and Turkey respectively. In Mexico for instance, employment in four steel plants was cut from 35,578 workers in 1985 to 17,485 workers in 1994.

Table 3.2: Job losses and privatization in Africa

Country and period	Number of privatized firms in sample	Employment at privatization	Employment, first quarter 1996	Net change in employment	Percentage change
Benin, 1988-95	8	1,872	1,197	-675	-36%
Burkina Faso, 1991-95	10	895	901	6	0.7%
Ghana, 1990-95	7	5,363	4,431	-932	-17.4%
Togo, 1984-95	19	2,882	2,338	-544	-18.9%
Zambia,1993-96	10	6,150	5,733	-417	-6.8%
Total	54	17,162	14,600	-2,562	-14.9%

Source: Campbell -White and Bhatia (1996)

The change in employment conditions after privatization in enterprises is also confirmed by studies in industrial and transitional economies. In Latin America, for example, wage increases have gone along with profit sharing schemes and compensating schemes in Mexico, Argentina, and Chile. In exchange for higher wages, rigid labor contracts often have been revised, including new collective bargaining agreements (Kikeri, 1998). For example, inefficient work rules and service conditions were renegotiated to provide managers greater flexibility with respect to decisions on content and pace of working conditions. The new collective bargaining agreement increased the work week from thirty-five to forty hours, linked wages to productivity and eliminated certain types of overtime and leave (Shaikh, 1997). In Mexico, such labor market flexibility allowed employment reductions in Telmex to be traded off for revision in the labor contract. After privatization, 57 different labor contracts were replaced with a single one, allowing managers to re-locate the labor force and subcontract support and administrative services to non-unionized firms, thus, reducing union influence within the work place and protecting many of the other benefits enjoyed by state enterprise workers (Van Der Hoever and Sziracki, 1997).

Privatization has created new jobs for existing workers and new ones in countries with good social safety nets like unemployment insurance, severance payments, public employment programs and income support programs. Megginson, Nash and van Randenborgh (1996); Boubakri and Cosset (1996); Galal *et al.* (1996) all found new job creation in enterprises and countries they studied after privatization. For example, a 1994 study by Galal et al, using cost-benefit analysis in twelve enterprises in Chile, Malaysia, Mexico and United Kingdom found that workers gained in ten of the twelve cases through retention and expansion in jobs. In addition, the study found that laid-off workers did not suffer welfare losses because the amount of severance pay they obtained was larger than the wages they lost during the time between losing their old job and finding new ones. A study by Kambhampati and Howell (1998) in the textile sector in India found that privatization of the sector led to a greater mechanization and thus a reduction in occupational diseases associated with the old methods of production. They also documented evidence of improved work safety methods and training programs for all workers.

In most economies, the degree of the impact of privatization on workers depends, among others, on the following:

- If the SOE sector work force accounts for large percentages of the total labor force, the re-deployment of displaced labor is likely to be more difficult. For example, in Russia in 1993, 90% of employment was in SOE sector, and many of these were considered precarious as demonstrated by high rate of firm labor turnover (Bruszt, 2000).
- Similarly, the faster the rate of privatization, the more difficult will be the absorption of displaced labor. It is however important to distinguish between short-term and long-term impacts. While the immediate impact of privatization is a welfare loss among displaced

workers, workers as a whole are gainers if the privatized sector proves more dynamic than it was under the state ownership, as future employment may expand more rapidly.

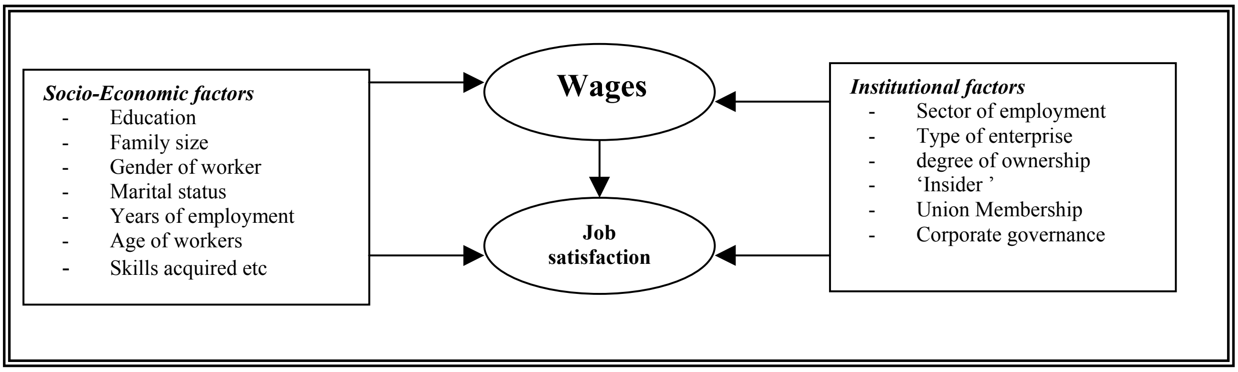
We have seen that theoretically, in instances where government maximizes social welfare or maximizes consumer surplus, public ownership may not always be the best solution to market failure; alternatives such as privatization are encouraged. However, the choice depends on several factors including the ease with which contracts with providers of goods and services are monitored and enforced by government, the degree of potential competition among private suppliers, the importance of non-contractible quality and innovation and the rate governments favor consumers over producers. The argument about which ownership type is welfare maximizing is however ambiguous. For instance, the superior nature of public ownership rest on the assumption that politicians seek to maximize social welfare, which in turn depends on efficient political markets. Recent developments in corporate America and Europe also cast doubts on the notion of 'good' in the private sector. It is clear from recent developments that private ownership is no guarantee that the private ownership will be better either because of the self-interest of management and weaknesses in the checks and balances built into the system.

The Ghanaian privatization program has entailed the most profound shift in industrial policy in the country, yet relatively little has been written on the effects of privatization on employment conditions. Since privatization changes the objectives of enterprises, the questions we want to answer are: *does job security increase with privatization? Does work safety improve with privatization? Does privatization improve training opportunities at the work place? Does privatization increase the overall job satisfaction levels of workers?*

3.7.3 Socio-economic and institutional determinants of wages and job satisfaction

In addition to privatization, labor economics literature shows that socio-economic and institutional factors influence wages and job satisfaction of workers (see Mincer and Polachek, 1974; Van Dijk and Folmer, 1999). Below, we discuss the factors that are shown to influence the wages and job satisfaction of workers (see Figure 3.3), including the general nature of their influence. The effects of privatization on wages have received considerable attention (i.e. Haskel and Szymanski, 1993; Flanagan, 1995; Vecernik, 1995; La Porta and Lopez-de-Silanes, 1997; Kikeri, 1998; Brainerd, 2001) but the effects on job satisfaction is the least studied aspects of privatization (see among others, Galel *et al*., 1996; Kambhampati and Howell, 1998; Kikeri,1998). Hence the nature of influence of various factors on job satisfaction is developed on an ad hoc basis.

Figure 3.3: Summary of factors affecting wages and job satisfaction



The socio-economic factors that are expected to play a role in the determination of wages and job satisfaction are the so called human capital variables -- education, experience, and skills -- social variables such as age, marital status, family size and gender; and institutional variables such as the sector, the role of unions and corporate governance. We consider these factors in detail in this study. Wage determination is based for the most part on equation (3.6)

$$ln\ (y_i) = f(s_i\ , x_i, z_i) + \varepsilon_i \qquad i = 1,\ldots n \tag{3.6}$$

where ln (y_i) is the natural log of earning or wages for the ith individual, s_i represent social variables, x_i indexes the human capital stock, z_i institutional factors, and ε_i is a random disturbance term reflecting unobserved characteristics and the inherent randomness of earnings. It is assumed that the error term is independent and is normally distributed with mean zero and constant variance. However, heteroskedasticity in the error term will be allowed for.

Job satisfaction will be based on self reported levels of satisfaction given personal characteristics and institutional factors as in equation (3.7)

$$L_i = L(K_i\ , F_i) + \varepsilon_i \tag{3.7}$$

For satisfaction L_i, we define personal characteristics including wages by a vector K_i, institutional factors by a vector F_i with ε_i as the stochastic error, assumed independent among observations. Below, we discuss each variable in details.

Human capital is important in wage determination. For instance, education is likely to increase worker productivity, stimulates innovation behavior, and facilitates the adoption and use of new technologies. The increasing speeds of technological change and international economic integration that enterprises face today call for workers to have higher skill levels in order for their enterprises to be competitive. One reason is that more skilled employees can adjust easily in the economic and technological environment than less skilled workers.

Wages are expected to increase with the level of education because individuals with higher levels of education have higher productivity rates and can more easily adapt to changing technology and new job processes at the work place than less educated workers. In addition, the level of education attained is expected to increase job search qualification and makes it easier to attain higher position. Education therefore will provide a sense of job security and satisfaction at the work place. Studies in developing countries also support the theoretical specifications of the human capital theory. The impact of education on wages, controlling for other individual and enterprise characteristics is found to be positive in several developing countries. For example, using data from manufacturing enterprises, Teal (1996) found education to be positively correlated with earnings in Ghana.

Human capital theory distinguishes between investments in general-usage and specific human capital. As pointed out by Becker (1964), this distinction is important if these investments take the form of employer-provided training. While the returns to specific training can be realized only in an ongoing relationship with the training firm, general training increases the productivity of a worker in many firms besides those providing it. Becker's theory separately addresses these phenomena and draws two main conclusions. First, employers will share the returns and the cost of investments in firm-specific skills with their employees. Second, in a competitive labor market firms will not invest into general skills of their employees due to their inability to collect the returns from such investments. Therefore, we expect PEs to invest less in training than SOEs. Moreover, we expect general and specific training to increase satisfaction levels.

Experience, which we measure as the number of years worked with an enterprise, is expected to positively influence wages and job satisfaction because experience is part of human capital that is built up over time. Moreover, it is a specific human capital developed within the enterprise and we expect employers to reward the number of dedicated years to an enterprise by an employee (see Groshen, 1991a). Verner (2000); Barr and Oduro (2002) observe that employees with more skills and experience earned relatively higher wages than unskilled worker in both the manufacturing and service sector in Ghana. We also expect experience to influence training opportunities positively. Employees who have worked with an enterprise for a longer period will be given the chance to attend more specific training, which will increase their firm-specific skills. In addition, employees with long experience with a firm and firm-specific skills are expected to have a sense of job security.

In discussing personal characteristics, many authors, for example, Mincer and Polachek, (1974), have argued that women are expected to spend less time in the labor force and consequently, have weaker incentives to engage in human capital investment. Therefore, the earning profile of males will be steeper than that of females (see Van Dijk and Folmer, 1999). The idea is based on productivity differences between men and women, which reflects in economic outcomes in the form of pay and occupation. Empirical evidence on gender pay gaps has traditionally focused on the role of gender-specific factors, particularly gender differences in qualifications and differences in the treatment of otherwise equally qualified male and female workers (that is, labor discrimination). Barr and Oduro (2002), observed that labor discrimination is based on taste and gender roles in developing countries. Most females in developing countries choose occupations where human capital investment is less relevant and penalties for spells of labor force interruptions are smaller. Thus, males are usually preferred over females and they take up most of the responsible jobs that attract higher wages. Hence, we expect males to earn higher than females and to enjoy high levels of satisfaction.

With labor discrimination in developing countries based on taste and gender, we expect females to experience negative satisfaction levels at the work place. Females are more likely to receive less training opportunities and probably will witness less investment in safety measures at their work place because of the nature of jobs they do and the amount of time they spend in the labor force. Invariably, they will experience high job insecurity as employers will always prefer males to them.

Marital status also is an important factor in wage determination and job satisfaction since employers value family membership as an indicator of stability and reliability. In industrial countries, studies show that married workers earn higher than their unmarried colleagues (Van Dijk and Folmer, 1985). However, theoretical conclusions about this factor are ambiguous. In the absence of firm theoretical conclusions for the differential, we assume that employers' value on family membership as indicator of stability and reliability reflect their belief that married workers are more productive relative to their unmarried colleagues, especially when these workers have reached marriage age and are still single. In developing countries, most studies find married premiums not to be statistically significant (see Verner, 2000). Studies in the Ghanaian manufacturing sector show that married workers are more productive than unmarried workers, the differences is not however revealed in earnings or satisfaction levels of the two groups (Verner, 2000). Verner could not come up with any specific reason for the high productivity among married workers but assigned it to weak assumptions such as selection bias and firms discrimination.

The impact of marital status on satisfaction levels actually depend on conditions in the firm. In enterprises where workers are given the flexibility at the work place especially working hours and also additional cost of family members covered by the firm, we expect married workers to enjoy high levels of satisfaction. Hence, we make an ad hoc assumption that married workers with high productivity would enjoy more training opportunities and a sense of satisfaction at the work place.

In Ghana, most organizations treat the number of dependants, especially children, as a sign of higher responsibility and obligations and thus may reward workers with children differently from those without (see Verner, 2000; Barr and Oduro, 2002). Thus, we expect employers to pay workers with children more to take care of the additional responsibility and obligations. Similarly, we expect satisfaction levels to be higher for workers with children. Studies on satisfaction and children in industrial countries find either negligible or negative effects of having children on overall satisfaction (Andrew and Withey, 1976; Glenn and McLanahan, 1981). However, anecdotal evidence from Ghana shows that workers with children, despite the reported stress, report greater satisfaction levels since children are seen in the society as investment (IMAS, 1998). We find workers with children more willing to undergo training to improve their skills and to earn more money. Workers with dependants, especially children are viewed by employers as more careful and stable workers (IMAS, 1998). We therefore expect the number of dependents to be positively correlated with satisfaction levels at the work place.

Age is a proxy for previous experience outside the current job since labor market experience is difficult to measure. Older workers are assumed to possess more experience that tend to make them more stable and skillful. We expect age to impact positively on wages and job satisfaction. However, we think the effect of age squared ($age^2/100$) will be negative because we expect a rapidly increasing wage in the early stages of a career and continued increases until retirement-age, though at a lower rate. The impact of age on satisfaction such as job security could be positive because older workers after years of work assume to have gained valuable experience and therefore stand less risk of getting fired. Likewise, age could have positive effect on work safety since older workers are more likely to receive higher investments in safety measures at the work place and also could be exposed to more firm-specific training. The impact of age on satisfaction levels is expected to be positive since older workers are more likely to be stable and have less difficulty in performing job duties.

Job characteristics, such as positions, are also important determinants of wages and satisfaction levels: occupational groups such as middle-level and low-level management and workers will all have different earnings and satisfaction levels. Due to differences in productivity and responsibility, the latter are expected to have the lowest earnings, the former the highest and the low-level management is expected to take an intermediate position (Van Dijk and Former, 1999). In Ghana, Barr and Oduro (2002); Verner (2000) observed that the impact of managers (supervisors and foremen) was statistically significant and positive on wages. The effect on satisfaction was however ambiguous. Because of higher responsibility and skills of management level workers in Ghana, we expect their overall job satisfaction levels to be positive. For instance, we expect management level workers to have more training opportunities to improve their management and supervisory skills. In addition, they would have a sense of positive job security because of their experience and skills they less likely to be fired. They are also more likely to work in safe environments because of their position and responsibilities.

Institutional factors in the context of this study include the sector employed, degree of private ownership, trade union membership, contact with employer (insider) and levels of corporate governance. With regard to these institutional factors, research has shown that wages differ substantially over sectors (see, Summers and Blanchard, 1990), mainly because working conditions and bargaining processes differ among sectors. Sectoral wage differentials are due to variables such as capital intensity, degree of competition in product markets, and financial performance and enterprise size. Manufacturing firms with high capital intensity are expected to pay higher wages than labor-intensive service enterprises because capital-intensive work requires more skills and experience. Teal (1996) observed that manufacturing firms with high capital-labor ratio paid significantly higher in most developing countries. Mazumdar (1994) also found sectoral differentials in wages in Ghana. For instance, employees in the wood sector were found to earn statistically less than their colleagues in the food, textile and metal sectors.

Studies on sectoral differentials in terms of satisfaction levels are limited. An important determinant of satisfaction is an individual's wage. However, in addition to absolute wages, relative wages have to be taken into account. Clark and Oswald (1996) for instance, show that satisfaction levels depend on a reference or comparison level of income refuting the microeconomic view that satisfaction is a function of absolute income. This could imply that a wage has a positive impact on satisfaction in lower income categories and an insignificant impact in higher categories. Similarly, higher wages can serve as tradeoff for a number of employment conditions. For instance, lower health and safety standards could be compensated for by higher wages.

Due to the nature of enterprises in the industrial and service sectors in Ghana, we expect satisfaction levels to be positive in the industrial sector. Industrial conglomerates such as Lever Brothers, Procter and Gamble and Nestle are dominant in the privatized industrial sector. Such enterprises offer more opportunities and facilities to workers. We expect them to provide more training opportunities to workers, provide a safe and healthy environment to workers and also provide a sense of job security to workers. Hence we expect satisfaction levels to be high in the industrial sector relative to the labor-intensive service sector.

The wage bargaining literature emphasizes that an institutional variable such as trade union membership is an important factor in wage determination. For example, in industrialized countries, unionized employees are more likely to receive higher wages than non-union and unorganized workers because trade unions are able to influence policy through their numbers and united stand (see McDonald and Solow, 1991). In developing countries, there is ambiguity in union's impact on wages and satisfaction levels. Verner (2000) observed a positive relationship between wages and unions in line with results found in industrial countries. However, other studies in developing countries Rama (1998); Booth and Chatterji (1997) found wages to be negatively correlated with unions because the presence of unions was generally associated with more firm-provided training and social welfare. However, because of the active role of the trade union congress (TUC) in wage determinations in Ghana, we expect the impact of union membership on wages to be positive. Given the low levels of wages in the public sector compared with the private sector (especially at the SOE level), we expect TUC to be able to negotiate higher wages.

The effect of union membership on satisfaction levels in Ghana is expected to be positive because of the role the TUC in Ghana plays in workers welfare. The TUC, over the years, has organized economic forums for workers on issues relating to their jobs, provided courses and seminars through international and local organizations and has representation on bodies dealing with the implementation of specific policies affecting workers. The TUC is a member of the Tripartite National Steering Committee on wage determination, work place safety and determination of severance and end-of-service benefits to workers.

Corporate governance, which is defined as the 'level of self regulation' in enterprises is an important factor in wage determination and of satisfaction levels. The Business Roundtable on Corporate Governance (BRT), a think-tank on corporate governance, defines a set of principles that constitute effective corporate governance. These are the presence of a functioning board of directors, board structure, operations, standards and specifications, and stockholders meetings. Over the years, large corporations including those in developing countries have increasingly adopted these practices aimed at improving the governance of their enterprises. These systems and structures are critical to the functioning of the modern private corporation as well as state owned enterprises. An enterprise with an effective corporate governance will have all these systems and structures in place. It serves as a check on management to be fair and truthful in their dealings with shareholders and workers. Effective corporate governance is assumed to impact positively on wages and lead to better conditions of employment for workers. For example, The Economist, January 19, 2002 issues on the Enron case observed that the ineffectiveness of corporate governance in the company allowed the executives of the company to cash out to the detriment of shareholders and workers. We distinguish three levels of corporate governance: very effective, where we have more than four elements in place; effective, where two to four are in place; and ineffective, where less than two are in place (see Appendix I for the list of elements). We therefore expect effective corporate governance to be positively correlated with wage and satisfaction levels of workers.

Corporate governance in developing countries is a novel development and not much have been written about its impact on workers wages and satisfaction levels. The direction of influence is therefore based on ad hoc evidence from consultancy and ministerial reports available in Ghana (for example, IMAS, 1998; DIC, 2000).

As discussed above, the degree of privatization is the key determinant of wages and satisfaction levels. Our review found greater ambiguity about the merits of private ownership and privatization in the theoretical than in the empirical literature. In the debate over the effects of competition, theory suggests that ownership may matter and if so private firms will outperform SOEs. There exist various degrees of privatization, ranging from 30, 40, 70, 75 and 100 percent private ownership in Ghana. We expect highly privatized enterprises to pay higher wages for the following reasons. First, if workers perceive that job security is more tenuous in PEs than SOEs, they may demand a wage premium and better employment conditions for work in the privatized enterprises. Second, PEs may need to pay higher wages and offer attractive working conditions to attract workers from SOEs, assuming that PEs are reluctant to hire from the pool of unemployed. Third, PEs may also pay efficiency wages and offer flexible working conditions to induce greater effort among the workforce. As observed above, we expect PEs to offer less training opportunities than SOEs. Moreover, because of cost cutting operations, we hypothesize that investment in health and safety facilities will be smaller in PEs than in SOEs. Finally, job security will be perceived better in PEs than in SOEs because of the transitional nature of SOEs in Ghana.

The variable "insider-outsider" is defined as the presence of direct or indirect personal contacts between the employer and employee through networks. A direct personal contact refers to kin relationship between top managers and employees. An indirect personal contact refers to relationships through associations such as voluntary organizations, networks through professional bodies and co-ethnics. Bargaining theory states that if earnings are set by bargaining between individual workers and (top) management, well-connected workers will have a higher probability of obtaining higher earnings than workers who have no contact with employers (see Summers and Blanchard, 1990). Following Montgomery (1991) and Arrow (1998) on kinship and co-ethnicity, Barr and Oduro (2002) find evidence of ethnic fractionalization in an African labor market. They considered earnings differentials between members of different ethnic groups and between employers' relatives, unrelated co-ethnics and other workers in the Ghanaian manufacturing sector and observed that employers favor their relatives and kinsmen in terms of pay and possibly also in terms of job allocation on similar grounds. We assume that the satisfaction levels of well-connected workers will also be higher. Well-connected workers would be offered more training opportunities, placed in better positions with good health and safety features and possibly allocated some of the secure jobs in the firm.

Various interaction terms such as gender x education; gender x marital status; gender x sector; education x age; and gender x insider have been identified in the wage literature to impact on wages (for example, Blinder, 1973; Corcoran and Duncan, 1979). In the Ghanaian context, Barr and Oduro (2002) also found evidence of the above mentioned interaction terms. Because of cost cutting by enterprises and traditional gender roles that give preference to males in the Ghanaian society, we believe gender discrimination could lead to higher incomes and higher satisfaction levels for educated males, married males, male in the manufacturing sector, and males connected to employers, As observed above, males in general are expected to have higher job satisfaction levels because of traditional gender roles. Males will be offered more training opportunities by employers because they are assumed that they will spend more time in employment than females; males will be assured of job security because of assumed higher productivity; and more investments are likely to channeled to areas where males work. Hence, we expect the interaction of male and other variables to be positive in partial as well as over all job satisfaction.

To sum up, based on theoretical and empirical discussions so far concerning wage and satisfaction differentials in PEs and SOEs, there are several reasons to expect that PEs offer wages and satisfaction levels that exceed that of workers in SOEs. First, if workers perceive that job security is more tenuous in PEs than SOEs, they may demand a wage premium and better employment conditions for work in the privatized enterprises. Second, PEs may need to pay higher wages and offer attractive working conditions to attract workers from SOEs, assuming that PEs are reluctant to hire from the pool of unemployed. Third, PEs may also pay efficiency wages and offer flexible working conditions to induce greater effort among the workforce.

3.8 Summary and Conclusions

The main objective of this chapter was to provide both a theoretical and empirical background to privatization and to develop a theoretical framework for guiding the implementation of the study. The reviews of theoretical and empirical models developed for privatization were presented in the chapter. Literature on the rationale for privatization mainly centers on theory and empirical evidence on the public versus private efficiency debate, and its implications for corporate governance, management and workers. Theoretical literature mainly duels on three main economic theories: the property rights, the public choice and the Austrian school. Empirical evidence also examines the hypothesis that SOEs are less efficient than are private firms.

The property rights arguments subscribe to the fact that ownership is characterized by exclusivity and transferability. The former aspect means that the owner is free to choose what to do with his/her asset, his/her freedom being limited only by those restrictions that are explicitly stated in the law. He/she reaps the benefits of his/her decisions and bears the costs. By establishing a direct relationship between owners' ability on how to use his/her property and bear the consequences of that decision, the exclusivity of ownership creates incentives to seek the best use for his/her assets. Similarly, the latter aspect implies that the owner has incentives to transfer his/her resources to a more productive owner (since the latter would be willing to pay for the resources more than the income derived from them by the present owner). On both accounts therefore, private ownership provides incentives for the resources to move to their highest-value uses. Hence, PEs provide more efficiency and value for assets than SOEs.

The ‘public choice’ school, on the other hand, emerged in the late 1940s and 1950s in response to the growing sense that orthodox economics, through its acceptance of governmental benevolence, neglected the importance of the political process in shaping and implementing policy. The public choice theorists argue that because of the general self-interest hypothesis, politicians, public officials and managers are seen as people seeking their own interests. Like everyone else in society, they do not adhere to the optimal rules. Therefore, freeing an enterprise from the burden of political interference and non-market criteria limits politician’s ability to redirect the enterprise activities in ways that promote their personal agenda. Private ownership is superior to public ownership since the former clarifies the objectives of the enterprise and leads it to enhanced economic performance.

The Austrian critique of public enterprise centers on the role or rather the absence of competition and entrepreneureship. In the Austrian tradition, the market is viewed as a process characterized by freedom of entry, non-parametric prices, and a profit-and-loss system. Public ownership restricts the role of all these elements. Privatization, according to them, is tantamount to the stimulation or introduction of competition, which leads to higher efficiency and responsiveness in better quality and variety of goods and service to people.

A survey of literature compiled by Galal *et al*. (1996) on the differences between public and private enterprise points out that the differentials can be assigned to one of two categories; differences in objectives and differences in constraints. Regarding objectives, private enterprises pursue profits whilst public enterprises may pursue whatever objectives the government may want and able to finance. Thus, public enterprises can be used to promote the welfare of politicians by hiring a large number of redundant workers. On constraints also, they argue that evidence abounds in some public enterprises forced to operate with insufficient autonomy (for example, cannot fire unskilled workers, directive as to application of funds). The authors argue that constraints on the private sector include the frequent claim in poorer developing countries that large, capital-intensive projects require public enterprises because the tiny private sector does not have adequate access to capital.

The theories on the rationale for privatization were summarized in a principal-agent framework. A framework using the principal-agent theory enabled us to link the relationship among owners, management, and employees. By using the metaphor of ‘contract’, the principal-agent theory attempts to describe the agency relationship in which one party (the principal) delegates work to another (the agent) who performs the work. Principal-agent models have been employed in many different academic fields in order to explain relationships among actors including employers (principal) and employees (agents); consumer (principal) and producer (agent); and in various political science sub-fields, in which bureaucrats are agents of the executive, or the governments of third world countries as agents of international lending institutions, and so on. Using the principal-agent theory as the analytical framework, we were able to conclude that both SOEs and privatized enterprises have principal-agent relations engendered in their contractual arrangements, which affect wages and job satisfaction of worker.

During privatization, the greater changes to the principal-agent relationship between the government (the principal) and the management (the agent) will likely occur on the principal side of the relationship since management replacement is not a necessary condition for privatization. After privatization, the new set of owners become the new ‘principals’. The differences in ownership therefore result in a very different ‘principal’ in terms of control. For instance, privatization is expected to remove institutional constraints such as political interference and multiple objectives. In particular, it is expected to narrow the objectives of the enterprise to profit maximization. Private owners, even if multiple, are expected to pursue this objective. For the same reason, they are expected to monitor managers and also to provide incentives to management to perform well. Finally, management itself is expected to face fewer political and bureaucratic constraints in pursuing profit maximization. As a result, privatization is likely to enhance efficiency.

Using Laffont and Tirole’s (1991) models of labor-managed enterprises enabled us to predict that the impact of privatization may either increase or decrease wages and job satisfaction depending on the assumptions made regarding the enterprise’s market power and objectives, worker bargaining power, and the nature of wage determination in the enterprise. In addition, the conceptual framework presented showed that socio-economic characteristics of a worker and institutional factors of enterprises were important variables to be considered in analyzing wages and job satisfaction. The socio-economic factors that are expected to play a role in the determination of wages and job satisfaction are the so called human capital variables -- education, experience, and skills-- social variables such as age, marital status, family size and gender, and institutional variables such as unions, sector and corporate governance.

Most of the labor literature views most of the socio-economic factors considered in this study as investment in human capital. Human capital is shown to be important in enhancing long-term economic growth, since a more educated workforce is likely to increase worker productivity, show innovation behavior, and facilitate the adoption and use of new technologies. The increasing speed of both technological change and international economic integration that enterprises face today call for workers to have higher skill levels in order for enterprises to be competitive. One reason is that more skilled employees can adjust easily in the economic and technological environment than less skilled workers. Workers that have invested in any of these factors are expected to earn higher and experience higher job satisfaction.

Institutional factors such as ownership type, and sector employed relate to enterprise level factors that are expected to increase the efficiency of the enterprises. Other factors such as unions and corporate governance relate to checks on management that are aimed at improving management-worker relationships. All these factors, cetaris paribus, are expected to lead to higher wages and better employment conditions.

The main socio-economic variables are the human capital variables (education, age and experience) which we hypothesized to positively influence satisfaction levels. For instance, we expect well-educated and experienced workers to enjoy high levels of satisfaction at the work place. Similarly, we expect employees who have worked with an enterprise for a longer period to be given the chance to attend more specific training to increase their firm-specific skills. However, empirical evidence from developed and transitional economies finds education to be negatively correlated with satisfaction levels. Clark and Oswald (1996) found satisfaction levels declining with education holding income constant. They assigned higher aspirations on the part of educated workers as the reason for the decline in satisfaction levels. In the same study, they found satisfaction levels also to be negatively correlated with comparison income. In this study, because of the low wages in the public sector compared to the private sector, we expect wages to impact positively on satisfaction levels. We believe the wage impact will be more pronounced in SOEs, since the workers in SOEs are worse off relative to their peers in PEs.

The institutional variable, degree of privatization, is an important determinant of satisfaction levels. For example, because of inability of firms to collect the returns from investment in general skills, we expect PEs to offer less training opportunities than SOEs. Moreover, because of cost cutting operations, we hypothesize that investment in health and safety facilities will be smaller in PEs than in SOEs. Finally, we perceive job security to be better in PEs than in SOEs because of the transitional nature of SOEs in Ghana. Moreover, most workers still face retrenchment if they remain in SOEs.

To conclude, there are several reasons to expect that PEs wages and satisfaction levels might exceed those in SOEs. First, if workers perceive that job security is more tenuous in PEs than SOEs, they may demand a wage premium and better employment conditions for work in the privatized enterprises. Second, PEs may need to pay higher wages and offer attractive working conditions to attract workers from SOEs, assuming that PEs are reluctant to hire from the pool of unemployed. Third, PEs may also pay efficiency wages and offer flexible working conditions to induce greater effort among the workforce. Nevertheless, alleged wage discriminations and recent developments in the corporate world cast doubt on the above assertions. In the next chapter, we present data collection procedures to enable us perform empirical test to predict the impact of these factors on workers wages and satisfaction levels in both PEs and SOEs.

CHAPTER FOUR

DATA COLLECTION

4.1 Introduction

This chapter provides a description of how the data used for the analysis were gathered and the type of data obtained. Problems encountered during the data collection are also discussed.

The data collection was carried out in selected urban areas -- Accra, Akosombo, Juapong and Tema-- in Ghana between April and October 2001, and involved two phases. Phase I had two activities: (a) review of secondary information from various publications and reports and (b) informal discussions with key officials of the Divestiture Implementation Committee (DIC), the State Enterprises Commission (SEC), Ministry of Finance (MOF) and heads of certain enterprises. The main objective of this informal discussion was to gain an understanding of the policies, structures and systems of the government and the enterprises. Meetings were held with these individuals at their offices.

Phase II of the data collection involved interviews at the enterprise-level from sampled workers. This was carried out by conducting interviews using structured questionnaires. Workers from both the state-owned and privatized enterprises were interviewed. The objective of the interview was to enable the workers in both enterprises provide data about their economic, social and personal characteristics as well as their opinions regarding work circumstances. The information obtained from workers in the privatized enterprises relates to their economic and work situation in the pre and post privatization periods.

The rest of this chapter is organized as follows: Section 4.2 discusses the selection of enterprises and respondents while Section 4.3 describe the structure of the questionnaire. In section 4.4, details of the fieldwork are presented with conclusions of the chapter presented in section 4.5

4.2 Selection of Enterprises and Respondents

The fieldwork involved a two-staged sampling: first the selection of enterprises and second, selection of respondents from these enterprises to be interviewed. The two types of enterprises selected were the privatized and state-owned enterprises.

4.2.1 *Privatized enterprises*

The ideal approach is to select enterprises that were randomly assigned to be privatized, but in Ghana, enterprises were not randomly assigned (perhaps better or worse enterprises were privatized first). Thus to get over the selection problem that might bias the results, some criteria were used to minimize this problem. The four most important criteria considered for selecting a privatized enterprise were that (i) the enterprise should be at least 20% privatized for a period of at least four years to ensure that the impact of privatization on workers were sufficient enough to be assessed, (ii) the enterprise should have not less than 500 employees[15], (iii) the enterprise should be an important contributor to gross domestic product (GDP) and (iv) enterprise should be urban-based since privatization is believed to have affected urban employees more due to the high concentration of state owned enterprises (see Kikeri, 1998).

The selection of the privatized enterprises involved the following procedure: the list of all the privatized enterprises was obtained from the DIC in Accra and stratified into three main sectors of the economy – service, industry/manufacturing and agro-based. Since we were interested in interviewing urban workers, we concentrated on the first two sectors. Most of the enterprises engaged in agriculture are located outside the urban areas. Given these criteria, a total of 7 enterprises, (3 in the service sector and 4 in the manufacturing sector) were selected (The list of privatized enterprises is presented in Table 4.1). The numbers of staff is not included in the table because we could not get accurate confirmation of the actual staff numbers provided by the human resources department (HRM) and owners of the enterprises.

4.2.2 *State enterprises*

Selection of enterprises under the SOEs was based on the following criteria; (i) the enterprise should be under the supervision of State Enterprises Commission (SEC) and subjected to the performance, monitoring and evaluation system (PME), and (ii) the enterprise should have not less than 500 employees. The PME system is designed to ensure that enterprises meet set targets at the beginning of each accounting year. At the beginning of each accounting year, management of SOEs meets with SEC- to agree on projected targets for the coming year. The targets negotiated include levels of production, efficiency, expenditure, and cost effectiveness as well as profits. At the end of the accounting period, these prior agreed targets at the beginning of the year are revisited. Variances are discussed and remedial actions, if any, are discussed with SEC. Normally, the PME process forms the basis for yearly bonuses for management and workers. By 2000, 30 SOEs were under the PME system, with only 6 enterprises having more than 500 employees. There were 2 manufacturing and 4 service enterprises. The list of these enterprises is presented in Table 4.2.

Table 4.1: Selected list of privatized enterprises

Enterprise	Mode of privatization	Name of Investor	Year of privatization	Degree of private ownership
Continental Hotel	Sale of Assets	Ghana Libyan-Arab holding Co. Ltd.	1990	70%
Lever Brothers Ghana Ltd.	Sale of Shares	Unilever PLC and Government of Ghana	1990	70%
Ghana Pioneer Aluminum	Sale of Shares	Existing Shareholders	1994	40%
GHACEM	Sale of Shares	SCANCEM of Norway	1992	100%
GNTC Bottling	Joint Venture	Coca-Cola International.	1994	75%
ATS; RT Briscoe Properties	Outright Purchase	SABAT Motors	1996	30%
Ghana Textile Printing	Sales of Shares	CWA Holdings Ltd. and Gamma Holdings NV	1994	100%

Source: DIC (2000)

Table 4.2: List of selected SOEs under the PME system

Name of SOE	***Staff No. in 2000***
Electricity Company Limited	5700
Ghana Cocoa Board	6200
Ghana Ports & Harbors Authority	3259
Ghana Post Company Limited	2350
Ghana Water Company Limited	3980
Graphic Communications Group Limited	1600

Source: State Enterprises Commission (SEC), annual report (1999)

4.2.3. Selection of respondents (workers)

Based on the time constraints and resources, it was determined that 400 workers were to be interviewed in total. Focusing on the workforce ratio between privatized and state owned enterprises collected from various HRM offices, we decided that 55% of the 400 workers (220) should come from the state owned enterprises and the rest (180) workers from privatized enterprises. Thus, taking into consideration the size of the labor force in each enterprise, we sampled approximately one percentage of workers from the sampled enterprises in the state owned enterprise group (see Table 4.3).

Table 4.3: Number of workers interviewed

Name of Enterprise (state owned enterprise)	Workforce	Number of workers interviewed
Electricity Company Limited	5700	55
Ghana Cocoa Board	6200	55
Ghana Ports & Harbors Authority	3259	33
Ghana Post Company Limited	2350	22
Ghana Water Company Limited	3980	33
Graphic Communications Group Limited	1600	22

Source: compiled from sample

For enterprises in the privatized sector, since we were not able to get the actual workforce, we decided to group them according to the rough estimates of the size of the work force obtained from the human resources department. In all, we had two groups with group 1 having the highest number of workers. From the two groups, twice as many workers were selected from the second group. Table 4.4 presents the groupings, and the number of workers selected from each enterprise.

Table 4.4: Number of workers interviewed

Enterprise	Group	Number of workers interviewed
Continental Hotel	2	18
Lever Brothers Ghana Ltd.	1	36
Ghana Pioneer Aluminum	2	18
GHACEM	1	36
GNTC Bottling	2	18
ATS; RT Briscoe Properties	2	18
Ghana Textile Printing	1	36

Source: compiled from sample

The selection of workers involved a simple random sampling technique. From the 13 enterprises we selected from the privatized and state owned enterprises, a list of all the workers, from foreman through to the middle level management was obtained from the human resources department of each enterprise. For privatized enterprises, we considered workers who were employed before privatization and still at post. Since our target was to interview 400 workers, we randomly selected the workers from the sampling frame. A summary of the sample of the selected enterprises and workers is presented in Table 4.5.

Table 4.5: Summary of the sample and the universe

Enterprises	Enterprises		Number of Workers
	Number of enterprises obtained from HRM office	Number of enterprises selected after applying criteria	Number of workers selected
SOEs			
Service	19	4	110
Manufacturing	10	2	110
Agro-based	1	-	-
Total	30	6	220
Privatized Enterprises			
Service	90	2	36
Manufacturing	100	5	144
Agro-based	22	-	-
Total	212	7	180
Grand Total	242	13	400

Source: compiled from survey.

4.3 Structure of the Questionnaire

The questionnaire, used to collect the data contained both closed and open-ended questions. The questions were grouped into two main sections: a section designed to obtain information on economic social and personal characteristics of worker and a section on institutional factors of enterprises. The questions on personal characteristic included age, marital status, number of dependents, educational level, experience and monthly wages. Questions on institutional factors included the type of enterprise, sector of enterprise and enterprise working conditions. Some of the questions were pre-coded for determined responses and others were open-ended for subjective/opinion response. The questionnaire is presented in Appendix I. For workers in the privatized enterprises, we collected data on pre and post privatization[16] periods while workers in the SOEs, were asked to compare the situation in 1995 to their current situation.

4.4 Interviews

4.4.1. Pre-testing the questionnaire

Considerable time was spent on organizing the worker interviews. The questionnaire was first pre-tested to test for the appropriateness and relevance of the questions. This was done by posting the questionnaire with return stamped envelopes to a group of workers not included in our sample for the actual interview. In addition to mailing the questionnaire to workers, two enterprises, one from the private and SOE, were selected for trial interviews to test the questionnaire and also to ensure that the questions were clear enough and easy to complete. The completed questionnaires from both categories of enterprises from the post mailing had a recovery rate of about 5%.

Some of the problems encountered during the trial interviews were unwillingness of top management to allow workers to be interviewed and non-cooperation from certain workers. Top management, especially the privatized enterprise, insisted on getting official certification from the university certifying that the information was for academic purposes before allowing the interviews to take place. On the part of workers, most complained about questionnaire and interview fatigue. They felt that the interviews would come to nothing, especially concerning their job satisfaction, hence they refused to be interviewed.

Measures taken to address some of these problems that we encountered were: soliciting the assistance of the head of SEC and the Institute of Corporate Governance (ICG) to explain to management and workers the rationale for the research and convincing them that the survey was for academic purposes. It was also explained to them that policy issues from the research could help government to effectively plan on issues relating to workers wages and job satisfaction. Despite all of our efforts to ensure a good response, including the use of supervisors and provision of small package incentive, most of the questions received from respondents, especially the mailed ones, were not fully answered and they omitted most of the important questions that were useful for our models. The responses received from the workers, however, were used to redesign and clarify our questions to make it easy and less time consuming.

4.4.2 Recruitment and training of interviewers

The results from the pre-test revealed to us that the mailed questionnaires were not going to give us good responses, and a field interview with enumerators was needed. Four interviewers from the SEC were recruited to administer the questionnaire. There were a number of reasons that made it necessary to recruit officers from SEC. They were familiar with both SOEs and privatized enterprises (since at one time or another, all privatized enterprises were under SEC) and more experienced in interview techniques. Three days were spent on training the interviewers. The purpose of the training were (i) to explain the purpose of the study and the enterprises to be covered, (ii) to provide instructions in interview techniques and (iii) familiarization with the questionnaire which included elaboration, clarifications and tips on how to obtain concrete opinions from respondents. This was carried out by going through all the questions, interpreting the intentions of each question and the type of answer expected.

4.4.3 The main Survey

Despite all the measures taken to ensure a smooth fieldwork, additional problems were encountered during the fieldwork involving government workers, especially the least educated ones. Some workers in SOEs had the tendency to digress from answering specific questions asked and instead gave account of the history of management activities and the politics in various departments. In the privatized enterprises, most workers were a little apprehensive and seemed suspicious in answering questions at first. However, after assuring them of the confidentiality of the answers and that their names would not appear on the questionnaire, they became very cooperative. The workers even felt good that at least the study would help remind the authorities to monitor management to improve their working conditions. These problems, nevertheless affected the period of the fieldwork resulting in repeated visits to enterprises. Some enterprises we had to visit for about 3 times before we could complete the interviews since workers often excused themselves to go and continue work after about 40 minutes of interview. As a result of these problems, we were not able to interview all the 400 workers and ended up with more people in one sector than anticipated. For instance, in the privatized enterprises, workers in the service sector were twice that of workers we interviewed in the manufacturing sector. Since the problems with the non-respondents were random and not systematic, we believe it will not influence our results.

In all, 336 workers were interviewed during the main period of the fieldwork: one hundred eighty workers from the privatized enterprises and 156 workers from the SEOs. Most workers were visited at their work places with the interview taking about 40 minutes. Out of the 336 workers, questionnaires from 300 workers were used for our analysis because the 36 other questionnaires had conflicting responses to some of our most important questions such as wages and opinion on working conditions. For example, some workers in the privatized enterprises gave lower wage figures for the post privatization period, which did not tally when checked with the human resources department.

4.4.4 *Accuracy and reliability of information from interview and its impact on results*

The success of data collection is determined by the extent to which the information collected is accurate and reliable. The inaccuracy and unreliability of data impact on results negatively. In this study, the inaccuracy and unreliability of data were attributed to collecting inadequate or wrong information and enumerator errors.

There were cases where it was difficult for respondents to provide accurate information on questions that required recall of some details such as opinion on various employment conditions and wages prior to privatization of the enterprise. In addition, some workers saw the wage questions to be sensitive information and were very apprehensive about disclosing their wages to the enumerators for fear that other employees may have access to them. Some therefore gave inaccurate wage figures, which had to be checked with the wage scales provided by the HRM office by the enumerators. In these cases, errors from the enumerators could be possible. Other possible enumerator errors were based on enumerator bias which include: enumerator unable to invoke respondents' interest; improper way of asking question; enumerator expects a particular answer on the basis of earlier response pattern and therefore mis-record information in the questionnaire. Since these errors were random, we did not expect them to influence our results.

As discussed in section 4.4.3, some workers in SOEs had the tendency to digress from answering specific questions asked and instead gave account of the history of management activities and the politics in various departments. In privatized enterprises, some respondents showed a non-cooperative attitude and lack of interest in the interview and therefore provided doubtful information. To minimize all these problems, enumerators were given on-the-job training and close supervision through frequent inspection of questionnaires by the author. Some answers were checked with the HRM offices for accuracy and some questionnaires were scrutinized and if serious inconsistency were found a replacement was sought. We were thus unable to interview 400 workers as planned and ended up with more workers in one sector than anticipated.

4.5 Summary and Conclusions

This chapter presented an overview of the data collection procedure and the design of fieldwork. The problems and issues in the data collection phase were also discussed. Data collection was divided into two phases. Phase I had two activities: (a) review of secondary information from various publications and reports and (b) informal discussions with key officials of Divestiture Implementation Committee (DIC), the State Enterprises Commission (SEC), Ministry of Finance (MOF) and heads of certain enterprises. The main objective of this informal discussion was to gain an understanding of the policies, structures and systems of the government and the enterprises.

Phase II of the data collection involved enterprise-level data from sampled workers. This was carried out by conducting interviews using structured questionnaires. Workers from both privatized and state owned enterprises were interviewed. The objective of the interview was to enable the workers in both enterprises provide data about their economic, social and personal characteristics as well as opinions regarding their work.

Enterprises were selected on the basis of a set of criteria. The four most important criteria considered for selecting a privatized enterprise were:

- the enterprise should be at least 20% privatized for a period of at least four years to ensure that the impact of privatization on workers were sufficient enough to be assessed
- the enterprise should have had not less than 500 employees
- the enterprise should be an important contributor to gross domestic product (GDP)
- the enterprise should be urban-based since privatization is believed to have affected urban employees more due to the high concentration of state owned enterprises

In state owned enterprises, the two criteria were:

- the enterprise should be urban-based, under the supervision of the State Enterprises Commission (SEC) and subjected to the performance, monitoring and evaluation system (PME)
- the enterprise should have not less than 500 employees.

The PME system is designed to ensure that enterprises meet set targets at the beginning of each accounting year. Given these criteria, 7 and 6 enterprises were selected from the privatized and state owned enterprises respectively.

The selection of workers involved a simple random sampling technique. From the 13 enterprises a list of all the employees, from workers through to the middle-level management was obtained from the human resources department of each enterprise. Since our target was to interview 400 workers, we randomly selected the workers from the sampling frame. In all, 336 workers were interviewed during the main period of the fieldwork: one hundred eighty workers from the privatized enterprises and 156 workers from the SEOs. Most workers were visited at their work places with the interview taking about 40 minutes. Out of the 336 workers, questionnaires from 300 workers were used for our analysis because the thirty-six other questionnaires had conflicting responses to some of our most important questions.

During the interviews, various problems were encountered, including sampling errors, collecting inadequate or wrong information, non-cooperative respondents and enumerator errors. Various ways were devised to rectify these problems to reduce data inaccuracy. These included replacing respondent; frequent checking of completed questionnaires and on-the-job training for enumerators.

Information collected from workers was synthesized and organized into a form that can be utilized to address the study questions. This task involved translating the questions into variables and assigning values to variables created. This formed the preliminary step towards further synthesis and data analysis presented in chapter 5.

CHAPTER FIVE

EMPIRICAL FINDINGS

5.1 Introduction

This chapter presents estimates of the theoretical models based on the questions developed in chapter 3, using empirical data collected from workers in PEs and SOEs in Ghana. These models are employed to determine the effects of privatization on monthly wages, partial and overall job satisfaction levels of full-time workers, and to identify the important personal characteristics and institutional determinants. The questions at the theory level were:

- *Do wages increase with privatization?*
- *Does job security increase with privatization?*
- *Does work safety improve with privatization?*
- *Does privatization improve training opportunities at the work place?*
- *Does privatization increase the overall job satisfaction levels of workers?*

A wage model is used to estimate the effects of privatization on monthly wages. An ordered logit model is used to estimate the effects of privatization on the probability of workers experiencing higher, partial and overall job satisfaction.

Section 5.2 presents an overview of the characteristics of the sample. In section 5.3, the empirical wage model is presented including a discussion of the estimated coefficients of the model. Section 5.4 analyzes the partial and the overall job satisfaction models. These partial models are job security, work safety and training opportunities. The overall job satisfaction model is an overall evaluation of the above-mentioned components combined with other unobserved components. In section 5.5, a comparison of PEs and SOEs in separate models is discussed. Conclusions are presented in section 5.6.

5.2 Descriptive Statistics of Sampled Population

The total sample for the study is 300 workers of which 167 were selected from PEs and 133 from SOEs. Descriptive statistics relating workers' personal characteristics in the sample are presented in Table 5.1. Male workers make up 77% of the SOE workforce; the corresponding figure for PEs is 67%. This reflects the high number of males employed in the urban formal sector in Ghana relative to females, who are mostly employed in the informal sector as petty traders and personal service providers. The number of females employed in PEs is higher than those in SOEs: 33% versus 23%, reflecting a rise in female jobs such as canteen helpers, factory hands and packers in the private sector.

The average age of the privatized enterprise workforce is 37, and in state owned enterprise 45. The high percentage of younger workers in PEs reflects the preference PEs have for younger workers who probably are more productive than their older colleagues in the SOEs. In terms of formal education, the average years of formal schooling for all workers are 11 years. The average for PEs workers being higher than those in SOEs: 12 and 9 years respectively[17]. PEs tend to have more younger and educated workers because after privatization, the new owners restructure these enterprises including merging departments and abolishing others. The new production processes put in place is often capital-intensive production processes. These new production processes require skilled and/or educated labor which the older workers from the SOEs lack. In this context, older workers are often laid-off and new positions filled with new, younger, and well-educated ones.

The number of workers classifying themselves as single is high in PEs: 55% as against 17% in SOEs. The high number of single workers in PEs is due to the fact that most workers in PEs are recruited straight from schools. The average number of years worked with a given enterprise is 7.4 years for all workers. Workers in SOE tend to work a little longer than those in PEs: 8 years versus 7 years, reflecting the low labor turnover in the Ghanaian labor market. In PEs, the number of years reported refer to the years worked with the enterprise after privatization. In terms of position, the number of workers holding management level positions is higher than those in the workers group. This holds true, particular for the SOEs. Sixty four percent of all the staff in SOEs are in management positions, reflecting the bloated nature of management staff in government enterprises.

The average monthly wage for workers in the two sectors is 642 thousand cedis ($91 as at December 2000), with average earnings of 753 thousand cedis ($101) and 503 thousand cedis ($71) for workers in PEs and SOEs, respectively. The differences in average earnings between middle-level, low-level, and workers are not statistically significant. The average wage differential between low management staff and workers in PEs is very small compared with SOEs. The wage differential is $3 and $13 between workers and low-level management in PEs and SOEs, respectively. However, the differential between middle-level management and low-level management is higher in PEs. Middle-level management in PEs earn on average $14 more than low-level management with the differences in SOEs just $6. See Table 5.1 for further details of the wage distribution.

Table 5.1: Descriptive Statistics

Variables	All Workers	PEs	SOEs
	N = 300	N = 167	N = 133
Age of workers (years)	40.6	37.3	44.6
	(9.3)	(8.81)	(8.5)
Gender (%)			
Male	72	67	77
Female	28	33	23
Marital Status (%)			
Single	38	55	17
Married	62	45	83
Number of years of education	10.8	12.2	8.9
	(3.0)	(2.1)	(2.8)
Number of years worked with enterprise	7.4	6.7	8.2
	(3.17)	(2.79)	(3.43)
Position			
Middle level management	45	28	17
Low level management	114	46	68
Workers	141	93	48
Average monthly wages ('000 cedis)	641.44	753.30	500.99
	(240.06)	(189.99)	(222.34)
Middle level management	795.65	862.17	570.12
	(313.09)	(234.66)	(294.41)
Low level management	630.72	759.29	527.30
	(226.89)	(204.40)	(206.73)
Workers	605.11	741.82	437.36
	(205.37)	(179.04)	(203.93)
Industry (%)	40	30	60
Service (%)	60	70	40
	93	54	77
Union (%)	7	46	23
Not member Union (%)			
Very effective corporate governance (%)	49	59	36
Effective corporate governance (%)	39	30	49
Ineffective corporate governance (%)	12	11	15

Note: Figures in parentheses are standard deviations

5.3 Monthly Wages

5.3.1 Theoretical aspects

A wage regression model is used to find out whether the type of enterprise plays a role in income determination. The starting point of the analysis is the wage equation based on the basic standard earnings function (Mincer, 1974), plus institutional factors. Log monthly wages are explained by personal characteristics and institutional factors as follows:

$$ln(y_i)= x_i'\beta + \varepsilon_i \qquad (5.1)$$

where $ln(y_i)$ is the natural logarithm of the observed monthly wages for individual worker i, x_i' is a k row vector of regressors of observed characteristics (personal, institutional and a constant term), β is a k column vector of unknown coefficients and ε_i is a stochastic error distributed $N(0,\sigma^2_\varepsilon)$. The errors are assumed independent among observations. No homoscedasticity is assumed, however. The idea underlying the monthly earnings function is that given institutional and personal characteristics, earnings depend on human capital accumulated within and outside the current job.

The dependent variable monthly wages, $ln(y_i)$, of a given worker is the current, post-privatization, after tax, monthly wages for full-time workers in PEs and the current, after tax, monthly wages for full-time workers in SOEs. Full-time workers are those who are permanent, work 40 hours a week, and receive monthly earnings in the form of monthly wages. Part-time workers, who are not included in the survey, are mostly casual workers, who receive daily wages and enjoy different employment conditions compared with permanent or full-time workers.

The independent variables include personal characteristics such as gender, marital status, position in the enterprise, age of worker, dependency ratio (spouse and number of children), human capital variables (education and experience), and institutional factors, such as enterprise type, insider-outsider and the sector of the enterprise. Table 5.2 gives detailed characteristics of these variables.

The impact of privatization on wages is evaluated using cross-sectional data with privatization viewed as treatment variable. First, we estimate equation (5.1) on the basis of 300 observations using ordinary least squares regression techniques (OLS) to test if privatization is significant (see Van Dijk and Folmer, 1999; Teal, 1996; Canagarajah and Saji, 1997). Next, using separate models per ownership types, we analyze the significance of personal and institutional factors in wage determination. A summary of variables included in the models and the hypothesized direction of the relationship between each variable and the dependent variable monthly wages are presented in Table 5.2

Table 5.2: Variables included in the empirical models and hypothesized influence on wages

Independent Variables	Description	Measurement	Hypothesized direction of influence on wages
Personal Characteristics			
Gender	Male Female	1 if male, 0 otherwise	+
Marital Status	Married Single	1 if married, 0 otherwise	+
Age $Age^2/100$	Age of worker Age squared	Years Years	+ -
Dependency Ratio	Number of dependants	Number of children	+
Education	Education level of worker	Years of education	+
Position in Enterprise	Workers, reference category		
	Low level management (LM)	1 if LM, 0 otherwise	+
	Middle level management (MM)	1 if MM , 0 otherwise	+
Experience with Enterprise	Years worked in enterprise	Years	+
Institutional Factors			
Ownership type	Privatized State owned enterprise	1 if privatized, 0 otherwise	+
Degree of Privatization	Percentage of private ownership	0/25/30/49/70/100	+
Sector of Enterprise	Economic activity of enterprise: Industry or service	1 if industry, 0 otherwise	+
Insider or outsider	Personal contact with employer	1 if person has a relationship with top management, 0 otherwise	+
Union membership	Member or non member	1 if union member, 0 otherwise	+
Corporate governance level	Self regulation of enterprise Ineffective, reference category Effective Very effective	1 if effective, 0 otherwise 1 if very effective, 0 otherwise	+ +

\+ means the direction of influence is positive
\- means the direction of influence is negative

5.3.2 Empirical findings for PEs and SOEs pooled

Table 5.3 presents the initial results for all variables and the final model obtained after applying the backward stepwise regression procedure. Heteroskedasticity was tested using the White test option in the econometric software package LIMDEP. Heteroskedasticity was found to be significant at 1 percent. The White covariance matrix was computed, which provides consistent estimates of the OLS standard errors such that the usual *t* and *F* tests are asymptotically valid. Multicollinearity was handled by means of backward stepwise regression. The overall goodness-of-fit statistics (adjusted R^2 and log-likelihood) indicate a reasonable overall performance of both the initial and the final model.

Table 5.3: Wage equation for workers (including interaction terms): PEs and SOEs pooled; dependent variable (*ln* monthly wages)

	Initial Model	**Final Model**
Variables	*Coefficients*	*Coefficients*
Constant	4.422***	4.974***
	(.630)	(.159)
Enterprises type		
Privatized	.247***	.217***
	(.053)	(.045)
Gender		
Male	-.158	
	(.449)	
Marital Status		
Married	.130**	.083*
	(.064)	(.049)
Age of worker	.032	.079***
	(.023)	(.030)
Age squared/100	-.002	
	(002)	
Dependency Ratio	.023	.027**
	(.014)	(.013)
Education	.106***	.092***
	(.040)	(.078)
Position		
Middle level management	.128**	.097*
	(.061)	(.055)
Low level management	.047	
	(.046)	
Workers		
Years worked with enterprise	.017	
	(.012)	
Insider	.065	.084**
	(.059)	(.042)
Sector Employed		
Industry	.091	
	(.077)	
Trade Union		
Member	-.128**	-.130***
	(.427)	(.041)
Corporate governance index		
Very Effective	.007	
	(.072)	
Effective	.111	.097***
	(.074)	(.040)
Ineffective		

Interaction Terms		
Gen_Edu	008	
	(.020)	
Gen_Mst	.057	
	(.080)	
Gen_Insd	.015	
	(.071)	
Gen_Expe	002	
	(.001)	
Gen_Sect	-.122	
	(.085)	
Gen_Age	.001	
	(.007)	
Edu_Age	.005	
	(.011)	
Number of observations	300	300
R^2	.574	.565
Adjusted R^2	.540	.552
F statistics	16.97	42.561
Log-likelihood	-73.181	-76.044

- standard errors are in parentheses
- * , ** and *** represent significance at 10%, 5% and 1% respectively (one- sided tests)

Gen_Edu = interaction: gender x education

Gen_Mst = interaction: gender x marital status

Gen_Insd = interaction: gender x insider

Gen_Expe = interaction: gender x experience

Gen_Sect = interaction gender x sector employed

Gen_Age = interaction: gender x age of worker

Edu_Age = interaction: education x age of worker

Table 5.3 shows that there is a significant positive relationship between privatization and monthly wages. Thus, the hypothesis that wages increase due to privatization is supported by the data. The estimated coefficient for the privatization dummy variable .217 implies that privatization increases wages by 21.7%, controlling for other variables. This finding is further supported by empirical studies on ownership type and aggregate earnings data in Ghana (see ISSER, 1992 and Verner, 2000). In terms of aggregate earnings, the overall private-public earnings ratio in Ghana, stood at 1.07 in 1991 (ISSER, 1992 p. 153). The ratio declined to .08 due to a massive wage increase in the public sector in 1992. However, the gap increased again in the late 1990s following the introduction of private sector development initiatives, including the privatization of several enterprises. To retain good staff, many private companies had to pay premium wages including several allowances and perks to workers. The current private-public earnings ratio is around 1.60.

The variables, dependency ratio, and marital status are found to affect workers' monthly wages positively in Ghana. These results are in accordance with both the theoretical expectation formulated in chapter 3 and wage analyses in industrial countries (for example, Borjas, 1981 and Holmlund, 1984). The coefficient of age, as proxy for experience, is also positive and significant, showing that experienced employees command higher wages.

Education variable has a positive and significant effect on wages. The result is in accordance with theoretical expectations and results obtained in other empirical studies (for example, Devine and Kiefer, 1991; Teal, 1996; Canagarajah and Mazumdar, 2000; Barr and Oduro, 2002). For example, Canagarajah and Saji (1997) find that workers in Ghana who have completed tertiary education earned 2.7 times more than their illiterate colleagues. Verner (2000) also finds that there is a wage gap of 51% for workers who have completed primary education compared with those who did not complete any level of education. An employee who has completed middle school obtained a wage premium of 41%, with the wage gap for secondary graduates being 56% and 186% for university graduates.

The sign of the estimated coefficient for middle-level management is positive and significant for all workers in the survey. The result is not surprising since most of the middle-level managers in enterprises take up the supervisory responsibilities. The result is supported by previous surveys done in Ghana. For instance, a survey of manufacturing firms over the period of 1992-94 under the Regional Program of Enterprise Development (RPED) revealed a widening gap between workers and management-level staff. While real wages of middle-level and low-level management had increased by 30% and 40% respectively, that of workers and apprentices had declined by 13% and 56% respectively (see Anyemedu, 2000).

The variable 'insider-outsider' has a positive and significant effect on wages. This suggests that one's relation to the employer have an influence on one's wages. This result is supported by studies that show kinship networks play an important role in the Ghanaian labor market (see Barr and Oduro, 2002). Ways in which employers favor insiders may include placing them at the right tail end of the wage scale and giving them the full benefits and perks associated with the position. This is possible because in Ghana, wage settings, to a larger extend, are imperfect and are determined by bargaining between employees and the employer (top management) with neither the employees of other sections or departments nor outsiders playing a role in this bargaining process.

The effect of the institutional variable "effective corporate governance" is positive on wages in accordance with theoretical expectations. We distinguish three levels of corporate governance: very effective, where more than four elements are in place; effective, where two to four are in place and ineffective, where less than two are in place (the list of systems and procedures is in Appendix I). In enterprises where effective corporate governance prevails, workers receive higher wages. This is because effective corporate governance ensures that employers deal with their workers in a fair and equitable manner in wage setting. However, the estimated coefficient of union membership is negative and significant contrary to theoretical expectations. Union membership does affect wages of Ghanaian workers negatively. A possible explanation may be that employers set higher wages in an attempt to prevent their enterprises from becoming unionized or compete with union employers in recruiting qualified workers. Other empirical studies in a number of African countries support this finding (see for example, Rama, 1997 and Verner, 1998). For instance, the presence of trade unions in most African countries is generally more associated with non-wage incentives such as increased social welfare (e.g., funeral allowance, health insurance and so on).

5.3.3 Wage models for PEs and SOEs separately

Table 5.4 presents separate wage models for PEs and SOEs. The following observations apply. First, for PEs, various degrees of privatization are considered, ranging from 30, 40, 70, 75 and 100 percent private ownership. This is in contrast to the previous section where a simple distinction was made between SOEs and PEs irrespective of degrees of ownership. Second, a number of variables that were found significant in the previous section turn out to be insignificant in the present models. Examples include corporate governance and insider-outsider. The differences in the levels of significance between the models could be due to the smaller number of observations. Moreover, several variables such as marital status, dependency ratio, sector, position and the interaction terms gender x age, gender x insider and gender x sector have different impacts in the sub-models. This may be due to differences in homogeneity between both groups.

Turning to a detailed discussion of the results, we observe that in addition to the previous section where the wage differential between PEs and SOEs was discussed, the degree of privatization within PEs does positively affect wages. The estimated coefficient .002 for degree of privatization means that a 10% more privatization leads to a 2% wage increase. Thus, the more privatized an enterprise is, the higher the wage levels are, *cetaris paribus.* In PEs, variables such as sector, management positions and the interaction term gender x sector are significant. However, in SOEs, the main human capital variables, marital status, dependency ratio and the interaction term gender x insider are significant.

Marital status variable influences wages positively in both cases but only significantly in SOEs. In these enterprises, the result shows that married workers seem to be better off relative to their unmarried colleagues. The result is similar to wage analyses in industrial countries, which usually show that married workers earn higher wages. It however contradicts previous studies in Ghana that find married premiums not to be significant even though married workers are found to be more productive than unmarried colleagues.

Table 5.4: Wage equation: PEs and SOEs compared; dependent variable (*ln* wages)

	PEs		**SOEs**	
	Initial model	Final model	Initial model	Final model
Variables	*Coefficients*	*Coefficient*	*Coefficients*	*Coefficient*
Constant	5.974***	6.383***	4.604***	4.644***
	(.676)	(.405)	(1.060)	(.211)
Degree of privatization	.002***	.002***		
	(.001)	(.001)		
Gender				
Male	-.693		-1.248	
	(.785)		(.7501)	
Marital Status				
Married	.042		.321	.230***
	(.066)		(.122)	(.087)
Age of worker	.019		.058	.010***
	(.031)		(.046)	(.004)
Age squared/100	.003		-.008	
	(001)		(.001)	
Dependency ratio	.006		.062	.049*
	(.013)		(.027)	(.024)
Education	-.015		.081	.115***
	(.037)		(.073)	(.011)
Years worked with enterprise	.003		-.002	
	(.010)		(.028)	
Position				
Middle level management	.206***	.272***	.007	
	(.048)	(.059)	(.110)	
Low level management	.070	.103**	.016	
	(.046)	(.049)	(.079)	
Workers				
Insider	.152		-.037	
	(.063)		(.123)	
Sector Employed				
Industry	.179*	.138***	-.139	
	(.100)	(.039)	(.142)	
Trade Union				
Member	.027		-.302	
	(.056)		(.124)	
Corporate governance index				
Very Effective	.120		-.030	
	(.078)		(.124)	
Effective	.122		-.059	
	(.085)		(.027)	
Ineffective				
Interaction Terms				
Gen_Edu	.045		-.015	
	(.042)		(.027)	
Gen_Mst	.001		.106	
	(.073)		(.181)	
Gen_Insd	-.011		.490***	.341***
	(.074)		(.171)	(.091)
Gen_Expe	.605001E-03		.022	
	(.013)		(.032)	
Gen_Sect	-.258**	-.153**	.120	
	(.120)	(.068)	(.165)	
Gen_Age	.004		.025	
	(.008)		(.013)	
Edu_Age	.604306E-03		.799155E-03	
	(.001)		(.001)	
Number of observations	167	167	133	133
R^2	.406	.233	.581	.508
Adjusted R^2	.315	.203	.502	.489
F statistics	4.48	9.82	7.36	26.294
Log-likelihood	26.939	16.432	-45.513	-56.259

- standard errors are in parentheses and * , ** and *** represent significance at 10%, 5% and 1% respectively (one sided test)

The age of a worker, which is a proxy for experience outside current job, has a positive significant impact on wages in SOEs. The estimated coefficients of age are positive in both privatized and SOEs but only significant in SOEs. The analysis reveals that there is a positive correlation between wages and the years worked outside the enterprise in SOEs.

The number of dependants plays a role in wage determination in SOEs. The coefficients of dependency ratio are positive but only significant in SOEs. The nature of this income disparity between PEs and SOEs in our analysis may be accounted for by the consolidated salary structure in SOEs, where all allowances and entitlements are consolidated into one monthly wage, compared with the variation allowance calculations in PEs, where social responsibilities and obligations of workers are considered.

The education variable is positive and significant for workers in SOEs but negative and insignificant in PEs. This result indicates that the more educated a worker in the SOE is, the higher the wage he/she receives. This result contradicts empirical studies in the transitional economies. For example, Rutkowski (1996) study in Poland on the effects of education on earnings concludes that the emerging private sector appears to offer higher wages to educated workers than the rest of the economy. The overall higher level of education among workers in PEs than those in SOEs could be a possible explanation for this differential. In PEs, additional education is not rewarded, instead PEs measure workers' productivity directly whereas in SOEs productivity is probably measured indirectly via education.

The signs of the estimated coefficients for middle and low-level management positions are positive in both SOEs and PEs. However, they are only significant in PEs. Most of the middle and low-level managers in PEs are professionals who take up the supervisory responsibilities and are paid higher than workers with no responsibilities. In SOEs, most middle and low-level managers are also supervisors but relative to workers, they take up less responsibilities. Moreover, they are on the government wage scales, which are lower compared to the private sector.

The sector where a worker is employed in an enterprise is analyzed by comparing the manufacturing/industrial with the service sector. The estimated coefficient of 'sector' is negative and insignificant in SOEs but positive and significant in PEs. The reason for the sectoral differential could be due to the nature of enterprises in the privatized sector. Most of the enterprises engaged in manufacturing in Ghana are large PEs, which are part of worldwide conglomerates such as Lever Brothers, Guinness and Nestle. Because of size, capital intensity and degree of competition, these enterprises often pay higher wages than the service sector (see Arai, 1990). In Ghana, the industrial SOEs are local in nature and do not differ significantly from the service sector.

The interaction term gender x insider effect is positive and significant in SOEs but negative and insignificant in PEs. The positive and significant nature of the variable in SOEs shows that in these enterprises, male relatives and kinsmen play a significant role in wage determination. In PEs, this effect is absent because of pressure from local and international regulatory agencies including the institute of corporate governance.

Gender in combination with sector-employed is positive and insignificant for SOEs but negative and significant for workers in PEs. In recent years, the government has given special attention to women, including the freedom to defer marriages in order to acquire higher education, encouraging employers to pay decent wages to women, and assisting women to obtain bank loans and capital materials to enable them participate in the private sector development program. This program was initiated by the government under the World Bank sponsored poverty alleviation program. For example, Ghana now has a ministry specifically for women affairs. While the policy seems to have been embraced by the private industrial sector because of local and international pressure, thus increasing wages of women, the same can not be said in the SOEs. The policy effect is yet to be seen in the state sector because of bureaucracy and red tape, which hinder quick implementation of policies.

5.4 Job Satisfaction

This section presents estimates of the analysis on job satisfaction. As discussed in chapter 3, a distinction is made between partial and overall job satisfaction. Partial job satisfaction relates to various employment condition issues as job security, work safety, actual work itself, training, social ties, flexible working hours, pension, insurance, free catering and promotion prospects (see Clark and Oswald, 1996). Overall job satisfaction is made up of the above-mentioned components combined with other unobserved components.

In this section, we analyze a data set comprising of self-reported levels of job satisfaction. The employment conditions of satisfaction selected are health and safety, job security, and training opportunities. These conditions are considered the most important based on discussions with management and a group of workers not included in the sample. Respondents were asked to rate each of the specific employment conditions on a good and bad scale of 1-5 (1 is lowest, 5 is highest).[18] Additionally, respondents were asked to rate their overall job satisfaction with the original Cantril's 'self-anchoring ladder' from 0-10 (0 is lowest, 10 is highest). Pre-testing showed that 10 levels worked reasonably well for the overall model.

First, we discuss some econometric aspects in section 5.4.1. Then in section 5.4.2, we present descriptive statistics. In sections 5.4.3-5.5.4, we discuss the estimates of the work safety, job security and training opportunities models. The estimates for the overall job satisfaction model are also discussed in this section. For both partial and overall job satisfaction levels, a pooled as well as separate PE and SOE models are presented. Conclusions are presented in section 5.6.

5.4.1 Econometric aspects

Both partial and overall job satisfaction levels are related to a variety of factors, which include personal characteristics such as gender, age, education, position, experience, and institutional factors such as privatization, union membership, corporate governance and the sector of the economy in which the enterprise is located. Moreover, an individual's wage is considered an important determinant of job satisfaction (Clark and Oswald, 1996). As discussed in chapter 3, we hypothesize that all these factors will have positive influence on both partial and overall job satisfaction levels.

We define personal characteristics including wages by a vector K_i, institutional factors by a vector F_i and job satisfaction by a vector L_i. For observation i, we express the relationship between satisfaction and these factors as: $L_i = L(K_i, F_i) + \varepsilon_i$ where ε_i is the stochastic error, assumed independent among observations. An ordered logit model is used to estimate the above-mentioned relationship (see Maddala, 1983; Zavoina and McKelvey, 1975: Clark and Oswald, 1996: Plug, 1997).

The above relationship is expressed in a model build around a latent regression in the same manner as the binomial probit/logit model. Dropping the subscript *i* the model is specified as:

$$L^* = \beta' x + \varepsilon \tag{5.2}$$

where L* is an unobserved variable and can be thought of as an underlying tendency of an observed phenomenon (Greene, 2000); the vector *x* contains the explanatory variables *K* and *L,* and β is the vector of unknown coefficients. We further assume that ε follows a logistic distribution across observations with the means and variance normalized to zero and one. What we observe is:

$$\begin{aligned} L &= 0 \quad \text{if } L^* \leq 0, \\ &= 1 \quad \text{if } 0 < L^* \leq \mu_1, \\ &= 2 \quad \text{if } \mu_1 < L^* \leq \mu_2, \\ &\;\;\vdots \\ &= J \quad \text{if } \mu_{J-1} \leq L^*, \end{aligned} \tag{5.3}$$

where *L* is observed in *J* ordered categories, and the μ_s are unknown threshold parameters separating the adjacent categories. With the logistic distribution, we will have a probability of:

$$\begin{aligned} &\text{Prob}(L=0) = \Phi(-\beta' x), \\ &\Pr ob(L=1) = \Phi(\mu_1 - \beta' x) - \Phi(-\beta' x), \\ &\Pr ob(L=2) = \Phi(\mu_2 - \beta' x) - \Phi(\mu_1 - \beta' x), \\ &\;\;\vdots \\ &\Pr ob(L=J) = 1 - \Phi(\mu_{J-1} - \beta' x). \end{aligned} \tag{5.4}$$

where Φ is the cumulative logistic distribution function.

In order for all the probabilities to be positive, we have $0 < \mu_1 < \mu_2 < ... < \mu_{J-1}$ with the first threshold parameter μ_1 normalized to zero so that we have one parameter less to estimate[19] (see Greene, 2000).

In ordered logit models, a more meaningful way of interpreting the estimated coefficients is using the predicted probability outcome. For a continuous variable, a marginal change in the predicted probability of the outcome *m* (for example, in the interval μ_{m-1} to μ_m) for a change in a particular explanatory variable x_k at the mean of each variable in the vector **x** is calculated as follows:

$$\frac{\partial \Pr(L = m|\bar{x})}{\partial x_k} = \beta_k \left[\Phi(\mu_m - \bar{x}'\beta) - \Phi(\mu_{m-1} - \bar{x}'\beta) \right] \tag{5.5}$$

For the lowest category we have:

$$\frac{\partial \Pr(L = 0|\bar{x})}{\partial x_k} = -\Phi(\beta' x)\beta, \tag{5.6}$$

and for the highest category:

$$\frac{\partial \Pr(L = j|\bar{x})}{\partial x_k} = \Phi(\mu - \beta' x)\beta_k \tag{5.7}$$

For discrete explanatory variables, the change in the predicted probability of outcome *m* as a particular explanatory variable x_k changes from x_0 to x_1 while the rest of the variables are maintained at **x** is given by:

$$\frac{\Delta \Pr(L = m|\bar{x})}{\Delta x_k} = \Pr(L = m|\bar{x}, x_k = x_1) - \Pr(L = m|\bar{x}, x_k = x_0) \tag{5.8}$$

We observe that there is a risk of simultaneity bias in (5.2) due to the presence of log monthly wages as an explanatory variable in the equation. The reason is the possible trade-off between job satisfaction components and wages. This problem is handled by using the estimate of log monthly wages as an instrumental variable, where the estimate is obtained from the wage equation in Table 5.3.

5.4.2 Descriptive statistics

Table 5.5 presents descriptive statistics of the responses by type of enterprise and for all workers together for the three employment conditions using the 1-5 scale (see Appendix I for questions). Table 5.6 presents the descriptive statistics of the overall job satisfaction using the 0-10 scale.

In Table 5.5, workers were asked to rate improvement levels in the three employment conditions over the previous four years using a five-point scale, where 1 corresponded to 'not improved at all', 5 corresponded to 'very improved' and the integers from 2 to 4 represented intermediate levels of improvement. With respect to job security, 68% of the respondents in PEs reported that job security had improved (levels 4 and 5), whereas 32% reported low levels of job security (1-3). In contrast, 19% of workers in SOEs felt improvement, whereas 81% reported low levels of job security.

The work safety statistics show that in PEs, workers were split 50-50 in their perception of improvement in work safety. The situation in the SOEs is different, with 65% of SOE workers reporting improvement in work safety, whereas 35% did not. Finally, Table 5.5 shows that workers in SOEs expressed high levels of satisfaction for training opportunities: 61% of workers in SOEs felt training opportunities had improved. In contrast, 8% of workers in PEs expressed high levels of rating.

Table 5.5: Descriptive statistics of workers opinion on employment conditions

Variables	SOEs N=133	Percentages (%)	PEs N=167	Percentages (%)
Job Security				
5	1	0.8	3	1.8
4	24	18	110	65.9
3	88	66.2	44	26.3
2	20	15	5	3
1	0	0	5	3
Work Safety				
5	36	27.1	8	4.8
4	51	38.3	75	44.9
3	31	23.3	71	42.5
2	13	9.8	8	4.8
1	2	1.5	5	3
Training Opportunities				
5	10	7.5	3	1.8
4	71	53.4	11	6.6
3	36	27.1	42	25.1
2	8	6	98	58.7
1	8	6	13	7.8

On overall job satisfaction, Table 5.6 shows that only 4% of SOE workers felt they were on a scale 7 and higher whereas about 22% of workers in PEs reported being on scale 7 plus. Almost a third of both samples reported 6. On levels 4 and 5, 45% of the respondents in SOEs reported being on these levels as against 39% for PEs. Only 6% of respondents in PEs reported being on the lower levels (1-3) whereas in SOEs it was 19%. The odds of classifying oneself as being in the highest job satisfaction level (7-10 on the scale) given a particular personal characteristics is presented in Appendix II with the overall odds being .037 (5/133) for workers in SOEs and .215 for workers in PEs.

Table 5.6: Statistics of overall job satisfaction

Overall job satisfaction	SOEs (Number of Workers)	Percentage (%)	PEs (Number of workers	Percentage (%)
10 (highest)	0	0	0	0
9	0	0	10	6
8	1	.8	2	1.2
7	4	3	24	14.4
6	45	33.8	56	33.5
5	38	28.6	42	25.1
4	19	14.3	24	14.4
3	22	16.5	6	3.6
2	4	3	3	1.8
1	0	0	0	0
0 (lowest)	0	0	0	0
Total	133	100	167	100

5.4.3 Empirical results

This section presents parameter estimates obtained from the ordered logit regression models. The independent variables include monthly wages and all the personal characteristics and institutional variable summarized in Table 5.2. and as discussed in chapter 3. A heteroskedasticity consistent estimator using the econometric software package LIMDEP was applied. To avoid the problem of multicollinearity, a backward stepwise procedure was used to select variables to be included in each model. The initial models contain all relevant variables that are considered in explaining overall job satisfaction. Only the significant variables are reported in the Tables presented below[20]. Details with all the variables are presented in Appendix III. In general, what we observe in the partial job satisfaction models is the insignificance of wages. A possible explanation is that wage is considered by workers as an aspect of overall job satisfaction and as such there is a trade-off between wages and the various components of overall job satisfaction. In sections 5.4.3.1 – 5.4.3.4, we present the pooled models. Separate models for PEs and SOEs are discussed in section 5.5.1-5.5.7.

5.4.3.1 Work safety

Work safety refers to the current health and safety conditions at the work place. In considering the condition, Table 5.7 shows that the estimated coefficient for enterprise type is negative and significant. This could mean that the influence of privatization on work safety is negative. The effects of privatization in Ghana are such that a number of enterprises that have survived have done so by restructuring to reduce cost and be competitive. Most enterprises restructure, *inter alia,* through the use of more capital intensive production methods, by renewing machinery, purchasing more technologically advanced machinery from abroad, and adding new modern units to existing plants (see Kambhampati and Howell, 1998). The restructuring has led to an increase in perceived risk. The reason is that ensuring health and safety adds to the cost of production: a cost most PEs in Ghana try to avoid. For example, in cotton textile production, workers need equipment to protect them from cotton dust, which causes lung diseases like bysinossis and chemicals from the warping and wefting, which causes eye problems. The work safety model results imply that as one moves from an SOE to a privatized enterprise, work safety conditions worsen, with the probability of good and very good safety conditions actually decreasing by 11% and 8% respectively (see Table 5.7).

Other variables that are significant in this model include corporate governance and the interaction term gender x experience. The variable corporate governance, which involves proper links among owners, management and workers to help self regulate the enterprise is positive and significant. Thus, effective corporate governance will compel management to invest in safe and modern equipment to enhance productivity and workers safety. In Table 5.7, the move from ineffective to very effective corporate governance reduces the predicted probability of worse and bad safety conditions by 7% and 15% and increases the probability of good and very good safety conditions by 13% and 9% respectively.

The results also show that the interaction term gender x experience is positive and significant, indicating that compared with the reference category of female workers, experienced male workers do not see much improvement in work safety conditions. A possible explanation is that safety investments are made in jobs particularly performed by experienced males rather than those performed by females due to, for instance, scarcity of funds.

Table 5.7: Ordered logit model for work safety: PEs and SOEs pooled; dependent variables *Work safety*

			Changes in Predicted probabilities			
Variables	*Coefficients*	*Change*	*Worse*	*Bad*	*Good*	*Very Good*
Constant	3.589 (4.025)	Marginal Effect	-.2777	-.5935	.4990	.3722
Enterprise type						
Privatized enterprise	-.795** (.418)	SOE to privatized	.0615	.1315	-.1105	-.0824
Corporate governance						
Very effective	.947*** (.334)	Ineffective to very effective	-.0733	-.1567	.1317	.0983
Interaction Terms						
Gen_Exp	.224** (.104)	Experienced female to experienced male	-.0174	-.0372	.0313	.0233
μ_2	2.037*** (.2028)					
μ_3	4.399*** (.2599)					
Number of observations	300					
Log Likelihood						
- intercept	-349.1803					
- final	-372.8624					
Chi-square	47.364					
Pseudo R^2	.09606					

- standard errors are in parentheses
- * , ** and *** represent significance at 10%, 5% and 1% respectively (tested at one tail probability)

5.4.3.2 Job security

We consider job security as the hope of not losing one's job, and the variables that are significant in the job security model are enterprise type, marital status, age of worker, age squared and middle level position. Results show that privatization is very important for job security. The estimated coefficient is positive and significant. Compared with workers in PEs, workers in SOEs express the highest level of job insecurity. The odds of uncertainty about one's future job prospects are 3 times greater in SOEs than in PEs.[21] This indicates that workers in PEs see their jobs more secure than their colleagues in SOEs. The high insecurity among SOE workers probably results from the pervasive overstaffing problems in SOEs, which often lead to mass layoffs and retrenchments during privatization. Overstaffing is most pervasive in enterprises that have operated as monopolies, enjoyed heavy government subsidies and other forms of protection in Ghana.

Table 5.8: Ordered logit model for job security: PEs and SOEs pooled; dependent variable *Job Security*

			Changes in Predicted probabilities			
Variables	*Coefficients*	*Change*	*Very insecure*	*Insecure*	*Secure*	*Very secure*
Constant	-4.026 (4.625)	Marginal Effect	.2306	.7577	-.7380	-.2503
Enterprise Type						
Privatized	1.096*** (.429)	SOE to Privatized	-.0628	-.2063	.0199	.0700
Marital Status						
Married	-1.048** (.572)	Single to married	.0600	.1973	-.1922	-.0652
Age	.316** (.161)	Marginal effect	-.0181	-.0595	.0579	.0196
Age squared	-.003** (.001)	Marginal effect	.0002	.0006	-.0006	-.0002
Position						
Middle level management	-.640** (.350)	Worker to middle level management	.0367	.1205	-.1174	-.0398
μ_2	3.005 (.249)					
μ_3	5.374 (.301)					
Number of observations	300					
Log Likelihood						
- intercept	-313.208					
- final	-357.838					
Chi-square	89.260					
Pseudo R^2	.13600					

- standard errors are in parentheses

* , ** and *** represent significance at 10%, 5% and 1% respectively (tested at one tail probability)

Our result is supported by other studies in developing countries with high numbers of state enterprises. For example, overstaffing in some Egyptian steel SOEs reached 85% in 1991(Banerji and Sabot, 1994). In Turkey, the loss-making steel SOEs were overstaffed by as much as 30% (Kikeri, 1998). Before privatization in the mid 1990s, the state-owned Zambian Airways employed 300 staff per plane (compared with the industrial norm of 140), and the bus company employed nearly 15 drivers per bus relative to the industrial norm of 4. Results presented in Table 5.8 show that as one moves from a state owned enterprise to a privatized enterprise, the predicted probability of very insecure and insecure job decreases by 6% and 20% and the predicted probability of secure and very secure job increases by 19% and 7%. The frequent agitation of workers in SOEs in Ghana against the privatization of several public enterprises might be a natural reaction of workers to the threat of privatization. For instance, one of the most important arguments raised against privatization is the loss of jobs and livelihoods (see DIC, (2000) report on R.T. Briscoe's privatization).

In Table 5.8, the estimated coefficient of age is positive and significant indicating that age is an important determinant of how secure one sees his/her future job prospects. The results imply that older workers have a better perception of job security than their younger colleagues. A possible explanation is that older workers gain valuable experience after years of working in enterprises to network the administrative system to their advantage relative to their younger colleagues who have just been employed. Therefore, compared with younger colleagues, they have a high sense of job security. However, the perception of job security decreases as they approach retirement-age. The estimated coefficient of age-squared is negative and significant indicating that security tails off as one ages.

The results in Table 5.8 also show that marital status is an important determinant for job security. The estimated coefficient of marital status is negative and significant, indicating that married workers see less job security than their unmarried colleagues do. A possible explanation for this might be the cost to enterprises, of married workers in the form of exemptions from night duties and paid leave to take care of children. In addition, family membership presents additional cost to the enterprise in the form of health insurance and spousal allowances. As one changes from single to married, the probability of secure and very secure job drops by 19% and 6% respectively.

The estimated coefficient of middle-level management compared with the base category, workers, is negative and significant indicating high job insecurity among middle-level management workers. A possible explanation may be that in several enterprises, middle-level management staff are many, swell the management ranks and normally exhibit lower productivity compared with other levels of workers. They normally absorb about 60-70% of the wage bill (see Canagarajah and Mazumdar, 1999). They are thus normally retrenched or forced into earlier retirement during privatization or employment rationalization exercises. It is therefore not surprising that middle-level managers express high levels of job insecurity. Table 5.8 shows that as one moves through the ranks from worker to manager, the probability of job insecurity (very insecure and insecure) increases by 3.6% and 12% while the probability of secure and very secure reduces by 11% and 3% respectively.

5.4.3.3 Training opportunities

Training is considered to be a significant component of job satisfaction. It increases workers skills and makes them more flexible and marketable. In a scenario of increasing unemployment and decreasing job security, worker's skills become particularly important. Empirical evidence also show that because of the need for enterprises to improve the skills and quality of their workforce, both SOEs and PEs do provide some training programs for their staff (see Kambhampati and Howell, 1998 and IMAS, 1998). Most training are general and provided on-the-job. General training refers to activities that generate extremely versatile skills or characteristics, equally usable in any firm or industry. Hence general training increases the productivity of a worker at any task. Another form is specific training, which provides on-the-job training that is only used in the particular enterprise providing the training. Specific training therefore raises the productivity of a worker only at that enterprise and is nontransferable. In the manufacturing sector for instance, there is the need for on-the-job training of approximately 6 months for beginners. The estimated coefficient of enterprise type in this model is negative and significant, showing that both general and specific training opportunities have not improved with privatization. For example, a worker moving from state owned enterprise to privatized enterprise increases the probability of that worker's perception on training opportunities being very bad by 18%, and bad by 11%. However, the probability of being better decreases by 29%.

Table 5.9: Ordered logit model results for training opportunities: PEs and SOEs pooled; dependent variable *Training*

			Changes in Predicted probabilities			
Variables	*Coefficients*	*Change*	*Very bad*	*Bad*	*Good*	*Better*
Constant	-3.293 (4.055)	Marginal Effect	.4771	.3004	-.0206	-.7570
Enterprise type						
Privatized enterprise	-1.288*** (.387)	SOE to privatized	.1866	.1175	-.0081	-.2961
Position						
Middle-level management	-.670* (.386)	Worker to middle-level management	.0972	.0612	-.0042	-.1541
Corporate governance						
Very effective	.782** (.363)	Ineffective to very effective	-.1134	-.0714	.0049	.1798
μ_2	1.064*** (.143)					
μ_3	2.128*** (.178)					
Number of observations	300					
Log Likelihood						
- intercept	-366.625					
- final	-402.378					
Chi-square	71.50					
Pseudo R^2	0.1088					

- standard errors are in parentheses
- * , ** and *** represent significance at 10%, 5% and 1% respectively (tested at one tail probability)

Middle-level managers perceive training offered at the work place to be inadequate. A considerable number of workers with middle-level positions in enterprises have average level of education, have worked for many years with the enterprise and have risen through the ranks to become managers. Among possible reasons for their negative perception are their relative numbers and obstacles to their ability to higher positions due to limited academic skills. The main features of training seminars and workshops in SOEs are general training not meant to enhance practical skills but to help develop the workforce to face the dynamics of the work environment.

Effective corporate governance plays an important role in training. Adequate rapport among owners, managers and workers enable management to channel more resources to both general and specific training, which eventually improves training prospects for all workers. The estimated coefficient of effective corporate governance is positive and significant, showing that effective corporate governance in enterprises enhances more training opportunities for workers. Table 5.9 shows that as corporate governance become more effective, there is a decrease probability of very bad and bad training prospects by 11% and 7%, and increase in the probability of better training prospects by 17%.

5.4.3.4 Overall job satisfaction

Table 5.10 presents parameter estimates obtained from the logit regression model for overall job satisfaction model. The results show that there is no significant difference between PEs and SOEs, given institutional and personal factors. Thus, the hypothesis that workers' overall job satisfaction increases with privatization is not supported by the data. One possible explanation is that the positive and negative effects for the sub-models (job security versus job safety and training) cancel out. Moreover, various unobserved components may play a role. As discussed in section 5.4., overall job satisfaction is more than the aggregation of three employment conditions analyzed above.

Gender is an important determinant of overall job satisfaction. The estimated coefficient of gender is positive and significant. The results show that males express high levels of overall job satisfaction than females. The higher satisfaction level among males is probably due to the nature of jobs and position males hold in various enterprises. Whereas a relatively large proportion of male workers are found in management positions, most female workers are found in unskilled positions such as sweepers, canteen operators and reception duties. The results in Table 5.10 show that for an average worker, being a male reduces the predicted probability of very bad and bad job satisfaction by 129% and 56% and increase the predicted probability of being satisfied and very satisfied by 122% and 63% respectively.

The estimated coefficients of age, and age-squared reveal a strong significant U-shaped relationship between job satisfaction and age. A possible explanation is that young workers experience difficulty in performing job duties due to diminishing challenges and increasing conflicts with job and the need to develop human capital. At older ages, these negative experiences diminish due to stability at the work place and prospects of retirement. The estimated coefficient of age-squared shows that the growth rate of satisfaction increases with older age.

The education variable, defined as the number of years of schooling, is important in explaining overall job satisfaction. The direction of the estimated coefficient of education is negative and significant. The results show that additional years of education lower satisfaction levels. There is thus diminishing return to education. For example, in Table 5.10 satisfaction levels reduce by 6% and 3% respectively for satisfied and very satisfied levels as one attains more education. The negative influence of education or the low satisfaction levels of higher educated workers might be the result of the high job prospects, aspirations, or expectation awareness of educated people in Ghana. After all, education induces high aspirations, therefore, in environments where basic materials for day-to-day tasks are absent, as it is in most enterprises in Ghana, the situation breeds discontentment. The result of our analysis is well supported by other studies (for example, Clark and Oswald, 1996: Warr, 1992; Watson *et al*., 1992). In Warr (1992) education enters negatively and significantly both with and without a large set of control variables. The possible explanation for Warr's result is the unexpectedly hard recession that hit the educated class in Britain in the early 1990s. The low satisfaction of the higher educated might then just result from the sharp drop in wages relative to those with lower qualifications. Watson *et al*. (1992) found that for a small sample of managers, educational qualifications is negative in a job satisfaction equation. They assigned the same explanation as Warr did: blaming the low job satisfaction on the British recession.

The estimated coefficient of log monthly wages is positive and significant showing that wage is an important determinant of overall job satisfaction. It implies that higher wages bring increased job satisfaction. For example as wages increase, the probability of being very unsatisfied and unsatisfied job levels decreases by 23% and 10% and that of satisfied and very satisfied increases by 22% and 12% respectively (Table 5.10). The lower wage levels of workers in Ghana, the high prevalence of poverty and the lack of social welfare institutions to help workers probably account for the high significance of wages in overall job satisfaction (see Canagarajah and Mazumdar, 2000).

The data suggest that institutional factors (union membership and corporate governance) are strong determinants of overall job satisfaction. The effect of union membership is found to be positive and significant. A possible explanation is the role the trade union congress (TUC) in Ghana has played over the years. The TUC has organized economic forums on workers job satisfaction through memoranda, conference resolutions, seminars and workshops and through representation on bodies dealing with the implementation of specific policies affecting workers. This result might explain why 80% of urban workers in Ghana are trade union members.

The estimated coefficient of corporate governance is positive and significant indicating that effective corporate governance system that enables management to improve the working conditions is beneficial to workers' job satisfaction.

Table 5.10: Ordered logit model results for overall job satisfaction: PEs and SOEs pooled; dependent variable *Overall job satisfaction*

		Changes in Predicted probabilities				
Variables	Coefficients	Change	Very unsatisfied	Unsatisfied	Satisfied	Very satisfied
Constant	1.456 (4.024)	Marginal Effect	.2509	.1108	.2375	.1242
Gender Male	7.493*** (2.141)	Female to male	-1.2911	-.5699	1.2221	.6389
Age of worker	-.465*** (.146)	Marginal effect	.0801	.0354	-.0759	-.0397
Age squared	.003** (.001)	Marginal effect	-.0006	-.0003	.0006	.0003
Education	-.422** (.228)	Marginal effect	.0728	.0321	-.0689	-.0360
Log monthly wages	1.358*** (.347)	Marginal effect	-.2342	-.1034	.2216	.1159
Enterprise type Privatized	-.471 (.368)	SOE to privatized	.0812	.0358	-.0768	-.0402
Union Membership	1.143** (.498)	Non-member to member	-.1971	-.0870	.1866	.0975
Corporate governance Very effective	.712** (.353)	Not effective to very effective	-.1228	-.0542	.1163	.0608
Interaction Terms						
Gen_Edu	-.327*** (.113)	Educated female to male	.0564	.0249	-.0534	-.0279
Edu_Age	.016*** (.005)	Old educated to young	-.0029	-.0013	.0028	.0014
μ_3	1.420*** (.156)					
μ_4	3.522*** (.257)					
Number of observations	300					
Log Likelihood						
- intercept	-357.547					
- final	-399.755					
Chi-square	84.754					
Pseudo R^2	0.10182					

- standard errors are in parentheses
- * , ** and *** represent significance at 10%, 5% and 1% respectively (tested at one tail probability)

Gender in combination with education shows that educated males express low levels of overall job satisfaction than females. The high job satisfaction level of educated female workers may be due to recent government policy to encourage women in the economic development of Ghana. In Ghana, gender roles, (patriarchal tradition), have been unfavorable to females in education, job placement and training. The Ghanaian government in recent years has given special attention to women, especially the educated ones in job placement and entrepreneurship development, as well as in the education of the 'girl child'. The policy is to encourage and enable women to participate fully in private sector development programs initiated by the government under the World Bank sponsored poverty alleviation program. Thus, most private businesses have become very receptive to female employees, giving them all the necessary encouragement and assistance.

The interaction variable education x age is positive and significant implying that older educated workers who have, for many years worked for an enterprise, enjoy high levels of satisfaction. A possible explanation is that these workers normally have high productivity rates and occupy sensitive management and supervisory positions that attract perks and extra allowance.

5.5 Job Satisfaction: PEs and SOEs compared

To compare the impact of each independent variable on work safety, job security and training opportunities in PEs and SOEs, separate models for PEs and SOEs are presented below. First, we discuss the separate models for the estimates of the work safety, job security and training opportunities, then estimates for the overall job satisfaction model are discussed.

5.5.1 Work safety

Results of the work safety model for both PEs and SOEs are presented in Table 5.11. The estimated coefficient of degree of privatization is negative though insignificant indicating that work place safety does not improve with higher degrees of privatization. However, the coefficient of effective corporate governance is positive in both cases but only significant for PEs. It implies that the existence of effective corporate governance, particularly in PEs helps improve safety conditions at the work place. The possible reason for the insignificance of corporate governance in SOEs is that though provided by law, various structures and systems of corporate governance are not well developed in SOEs. For example, in Ghana, several SOEs do not have boards of directors whereas standards and specifications and regulatory committees are virtually absent.

The position held in an enterprise has a significant effect on perceived work safety in both SOEs and PEs. Middle-level managers compared with workers in SOEs are of the opinion that work place safety has improved whereas low-level management in PEs perceive work safety to have deteriorated. These differences in opinion stem from the nature of work of the two groups of management staff in the two enterprise types. Low-level managers in PEs perform supervisory functions, that involves working in the field or on the factory floors with workers while middle-level managers in SOEs perform supervisory functions mainly in the office. Thus, the group in the field may have a better appreciation of safety in the work place than those in the office.

Table 5.11: Job safety ordered logit model : Privatized and SOEs compared

	PEs	**SOEs**
Variables	*Coefficients*	*Coefficients*
Constant	5.554	-.165
	(8.769)	(7.064)
Degree of Privatization	-.006	
	(.009)	
Position		
Low level management	-.800*	1.320**
	(.468)	(.676)
Corporate governance index		
Very Effective	1.588***	
	(.587)	
Interaction Terms		
Gen_Edu		-.340*
		(.197)
Gen_Mst	2.215**	
	(1.00)	
Gen_Sect	-2.101*	
	(1.190)	
μ_2	2.985***	1.379***
	(.372)	(.277)
μ_3	6.465***	3.439***
	(.560)	(.362)
Number of observations	167	133
Log Likelihood		
- intercept	-155.892	-159.014
- final	-178.263	-175.162
Chi-square	44.741	32.296
Pseudo R^2	.13531	.098164

- standard errors are in parentheses

* , ** and *** represent significance at 10%, 5% and 1% respectively (tested at one tail probability)

In PEs, the interaction term gender x marital status is significant and positive. The main reason for this result is that in PEs, most married males are involved in more demanding and risky jobs and these are the areas that have seen safety improvements. However, the results also show that PEs are not doing enough at the industrial sector level as attested by males in the sector. The estimated coefficient for the interaction term gender x sector is negative and significant. Similar results are obtained for educated males in SOEs where they feel work place safety has not improved. A possible explanation could be that relative to uneducated males, educated males are more informed about the nature of safety aspects of their jobs.

5.5.2 Job security

The results of the job security model for both PEs and SOEs are presented in Table 5.12. The significant variables in the job security model are marital status and experience in PEs, whereas, the age, age-squared, and middle-level management are the significant variables in SOEs. The coefficient of degree of privatization in this model is negative and insignificant indicating that job security does not improve with higher degrees of privatization.

The estimated coefficient for marital status is negative and significant in PEs, but insignificant in SOEs. The high job insecurity of married workers in PEs may stem from their inflexibility and the additional cost related to the difficulty of relocation, and additional health insurance for family members. These factors are considered by the government as society's cost in SOEs.

The number of years of experience with enterprise in PEs enters negatively and significantly implying that years worked with the enterprise is not a guarantee to job security. In Ghana, most PEs compared with SOEs, prefer young and educated workers straight from the universities and trade schools because these workers are more technologically endowed than their colleagues previously employed (see IMAS, 2000).

The age coefficients are positive in both enterprise types but only significant in SOEs implying that older workers in SOEs, feel more secure with their jobs. Though older workers in both enterprise types are the first to be fired in case of enterprise restructuring, probably because of the ability of older SOE workers to network the bureaucratic government system to their advantage relative to their colleagues in PEs, their sense of security (false or genuine) may be higher. However, the estimated coefficient of age squared is negative and significant indicating that the age of a worker has significant diminishing marginal returns on job security.

Table 5.12: Job security ordered logit model : Privatized and SOEs compared

	PEs	SOEs
Variables	*Coefficients*	*Coefficients*
Constant	-.1741	-4.733
	(6.449)	(5.527)
Degree of Privatization	-.009	
	(.006)	
Marital Status		
Married	-.660*	
	(.365)	
Years worked with enterprise	-.138*	
	(.717)	
Age		.390*
		(.225)
Age squared/100		-.004*
		(.002)
Position		
Low-level management		-1.636***
		(.577)
μ_2	2.263***	3.680***
	(.367)	(.384)
μ_3	4.954***	4.551***
	(.459)	(.437)
Number of observations	167	133
Log Likelihood		
- intercept	-178.879	-123.633
- final	-192.594	-133.77
Chi-square	27.431	20.28
Pseudo R^2	.108760	.10011

- standard errors are in parentheses

* , ** and *** represent significance at 10%, 5% and 1% respectively (tested at one tail probability)

Compared with the base category workers, the low-level management coefficient is negative and significant in SOEs, indicating high job insecurity among middle-level management workers. The possible explanation for this is SOEs have relatively more workers in middle-management positions relative to PEs. Because middle-level managers are many and swell the management ranks in SOEs (see Canagarajah and Mazumdar, 2000), they are probably the first to be retrenched or forced into earlier retirement during privatization or employment rationalization exercise.

5.5.3 Training opportunities

With respect to the variable training, PEs and SOEs differ in terms of sector of employment, education, position held, union membership and the interaction terms gender x marital status, gender x experience and gender x education (see Table 5.13).

As in the previous model, the variable degree of privatization is positive though insignificant for PEs. However, workers in the privatized industrial sector, relative to colleagues in the SOE industrial sector, perceive training opportunities have improved. The high incidence of training in the privatized industrial sector is that most are subsidiaries of worldwide conglomerates such as Lever Brothers, Guinness and Nestle. Due to capital intensity, degree of competition and the export nature of products, these enterprises often provide on–the-job training that include familiarization with ISO 9000 rules and regulations. In Ghana, the industrial SOEs are local in nature and engage in less competition. They are mainly import substitution industries therefore the rate of training in SOEs may not as high as in the privatized industrial sector. Union membership is an important determinant of the amount of training offered in PEs. Compared with SOEs, unionized workers in PEs perceive training has improved indicating that unions seem more influential in this regard in PEs. Moreover, as part of their responsibilities, unions, among others, are supposed to see to the human capital development of members.

Although training is provided for all workers, married female workers in PEs complain of inadequate training. The main reason for the difference is that because of the nature of work married female workers in PEs do, they are less likely to receive formal training. Most married female workers in PEs are assigned tasks that are repetitive and non-cognitive such as sweepers, clerks or canteen attendants, with just a few engaged in managerial work. In SOEs, however, a relatively large proportion of married female workers are involved in non-repetitive tasks such as secretaries, project officers, accounts officers and marketing personnel, who receive general training during their employment period in the form of upgrading of skills (see IMAS, 1998).

In SOEs, several factors including education, position and gender influence the perception of training. Educated workers in SOEs relative to colleagues in PEs perceive training offered to be adequate. A possible reason is that because of the academic skills they possess they are often offered training opportunities reflecting the part of employers' belief that individuals with greater formal education can be trained at less cost since they have already demonstrated ability to learn. Moreover, general training is part and parcel of SOE's total employment package. The type of training available to workers in SOEs includes formal training in universities, training schools and on-the-job training. However, as discussed in section 5.4.3.3, the lack of greater formal education by most middle-level managers in SOEs make their perception of training offered at the work place to be inadequate.

Table 5.13: Training opportunities ordered logit model: Privatized and SOEs compared

	PEs	SOEs
Variables	*Coefficients*	*Coefficients*
Constant	8.274 (8.952)	
Degree of Privatization	.004 (.007)	
Sector		
Industry	1.895** (.893)	
Union membership	1.459** (.809)	
Education		.264** (.122)
Position		
Low level management		-1.378*** (.511)
Interaction term		
Gen_Mst	-1.563** (.794)	
Gen_Exp		.236* (.126)
Gen_Educ		-.250* (.133)
μ_2	1.073*** (.186)	1.325*** (.280)
μ_3	2.325*** (.239)	2.287*** (.311)
Number of observations	167	133
Log Likelihood		
- intercept	-205.421	-147.273
- final	-229.318	-154.680
Chi-square	47.793	15.814
Pseudo R^2	.109820	.09784

- standard errors are in parentheses

*, ** and *** represent significance at 10%, 5% and 1% respectively (tested at one tail probability)

In SOEs, the interaction terms gender x experience and gender x education are also significant but only positive in the former. Apparently, experienced males perceive better training opportunities than experienced females, which could be due to their higher productivity. In PEs, this kind of discrimination is not discernable. A possible explanation for the negative interaction term gender x education is that relative to PEs, educated males in SOEs are more ambitious and willing to undergo training than management can provide (see IMAS, 1999).

5.5.4 *Overall job satisfaction*

In Table 5.14, the variables that are significant in PEs are: education, age, sector, union membership and the interaction terms gender x sector and education x age. In SOEs, the significant variables include age, age squared, income, sector and the interaction term gender x sector. The estimated coefficient of degree of privatization is positive but insignificant indicating that higher degrees of privatization have positive but insignificant effect on overall job satisfaction.

The age coefficients are negative and significant in both enterprise types, reflecting lower overall job satisfaction levels for older workers. A possible explanation is, in addition to more challenges and increasing conflicts with job, household and community duties older workers face, they are more likely to be the first to be laid-off in enterprise restructuring. The significant positive effect for age squared indicates that in SOEs, the negative age effect tails off probably due to the prospects of early retirement. The estimated coefficient of education in PEs is negative and significant. Possible reasons for the negative job satisfaction of educated workers in PEs relative to their colleagues in SOEs are the limited opportunities for training, unsafe working environment and few avenues to seek redress for grievances in PEs.

The sector where a worker is employed is analyzed by comparing the manufacturing/industrial with the service sector. The estimated coefficients of sector are significant in both cases. However, it is negative in SOEs. It indicates that workers in the privatized industrial sector compared with their colleagues in SOEs feel more satisfied with their overall jobs. Some of the reasons for the high job satisfaction among industrial workers in privatized enterprise relative to those in SOEs are the differential opportunities and facilities in the two sectors. Industrial conglomerates such as Lever Brothers, Procter and Gamble and Nestle are dominant in the privatized industrial sector in Ghana, whereas under-performing utility enterprises dominate the SOE industrial sector. The decreasing size of the workforce as a result of cost cutting and the higher skills demanded as a result of more capital-intensive production processes employed by most PEs have meant that these enterprises are able to provide their workers better opportunities and facilities. Particularly, relative to SOEs, which are under-performing and face threats of privatization, PEs provide job security and higher wages to workers.

The data suggest that union membership is a strong determinant of overall job satisfaction in PEs. The estimated coefficients of union membership is positive and significant indicating that union membership, through their united stand and influence on policy, helps to improve the overall job satisfaction of workers in PEs. A possible explanation of the insignificance of the variable in SOEs could be that because of political control of trade unions at the state level, their effectiveness in influencing SOEs is crippled. All workers in SOEs are members of the Trade Union Congress (TUC) and the TUC is the main representative of workers in such matters as collective bargaining -- deliberations on their wages, compensations and retirement benefits. In PEs, it not obligatory to be a member of a trade union hence not all workers are union members.

Table 5.14: Overall job satisfaction ordered logit model: Privatized and SOEs compared

	PEs	**SOEs**
Variables	*Coefficients*	*Coefficients*
Constant	17.762 (8.066)	
Degree of Privatization	.005 (.007)	
Marital Status		
Married		
Age	-.554* (.285)	-.571** (.266)
Age squared/100		.006* (.003)
Education	-1.693*** (.488)	
Sector		
Industrial	1.722*** (.823)	-1.676*** (.987)
Union membership	1.499** (.617)	
Log monthly wages		1.371*** (.509)
Interaction Terms		
Gen_Sect	-2.672*** (.932)	2.425** (1.119)
Edu_Age	.434** (.112)	
μ_2	1.552*** (.236)	1.551*** (.253)
μ_3	3.611*** (.381)	4.963*** (.614)
Number of observations	167	133
Log Likelihood		
- intercept	-190.808	-135.099
- final	-227.238	-159.225
Chi-square	72.860	48.25
Pseudo R^2	.167094	.134338

- standard errors are in parentheses

*, ** and *** represent significance at 10%, 5% and 1% respectively (tested at one tail probability)

The effect of wages on overall job satisfaction in both PEs and SOEs is positive but only significant in SOEs. A possible explanation for the differential is offered by the theory of relative wages. According to this theory, an individual's wage satisfaction depends among others on how one's wage compares to the wages earned by one's peers (see among others, Clark and Oswald, 1995). As shown in Table 5.1, the average monthly wage of workers in SOEs, as at the year 2000 was 500,000 cedis ($71) per month as against 753,000 cedis ($101) for workers in PEs. Hence, workers in PEs feel better off compared with their peers in SOEs. For the latter, on the other hand, higher wages bring them closer to their colleagues in PEs in terms of satisfaction. The result also reflects the impact government policy had on wages in SOEs. The government policy of using wage restraint as a constant feature of the reforms of SOEs in Ghana over the years has caused massive wage differentials. By 1991, the overall private-public earnings ratio stood at 1.46 and currently it is around 1.60.

The variable gender x sector is also an important determinant of overall job satisfaction. The variable gender x sector is significant in both enterprise types but negative in PEs and positive in SOEs. Male workers in privatized industrial sector express low levels of job satisfaction relative to their colleagues in SOEs. One possible explanation for the differential is that in the privatized industrial sector, male workers work in unsafe environment relative to their colleagues in SOEs.

The interaction variable education x age is positive and significant in PEs. The results imply that in PEs, older educated workers enjoy high levels of job satisfaction. A possible reason is that apart from high wage scales in PEs, older educated workers in PEs usually occupy sensitive management and supervisory positions that attract perks and extra allowance.

5.6 Summary and Conclusions

We have presented an overview of the characteristics of the sample and answers to the questions developed in the theoretical chapter in this chapter. The descriptive statistics show sample distribution between workers in PEs and SOEs. The total sample for the study is 300 workers of which 167 are selected from PEs and 133 from SOEs. Male workers make up 77% of the SOE workforce; the corresponding figure for PEs is 67%. The number of females employed in PEs is higher than those in the SOEs are- 33% and 23% respectively, reflecting a rise in female employment in areas such as canteen attendance, factory hands and packers in the private sector. The average age of the privatized enterprise workforce is 37, and in state owned enterprise 45.

Results from our analysis show that in terms of formal education, the average for all workers was 11 years with workers in PEs having attended more formal schooling than those in SOEs: 12 and 9 years on the average, respectively. The number of workers classifying themselves as single was higher in PEs than in SOEs: 55% and 17%, respectively. The high number of single workers in PEs is attributed to the practice of recruiting most their employees straight from schools. Therefore, these workers tended to be younger and single. In terms of position held, 44% of all staff in PEs are reported to be in management position whereas it was 64% in SOEs, reflecting the bloated nature of management staff in government enterprises. The average monthly wage for workers in the two sectors was 642 thousand cedis ($91 at December 2000), with workers in PEs earning on average 753 thousand cedis ($101) and those in SOEs earning 503 thousand cedis ($71).

The first question in our study was based on the effects of privatization on monthly wages, which we defined as the present post privatization monthly wages in PEs and the current monthly wages of full-time workers in SOEs. The question was: *do wages increase with privatization?* The model used to answer this question was the standard earnings function, estimated with OLS. Pooled as well as separate models for PEs and SOEs were estimated. The analysis produced two key results.

First, workers reported monthly wages were shown to be positively related to privatization. The result supports our theoretical expectations and other results obtained in other empirical studies. For example, Flanagan 1995; Vecernik 1995; Haskel and Szymanski 1993 and Brainerd 2001 found a positive correlation between privatization and higher wages. Empirical evidence on ownership type and aggregate earnings data in Ghana also supports these results. In terms of aggregate earnings, the overall private-public earnings ratio in Ghana is currently around 1.60. The high private sector wage premium, controlling for other factors, probably reflects greater competition, export orientation of PEs and expansion of the private sector in Ghana.

The variables that affected workers wages positively in both enterprises include dependency ratio, age, education, marital status, position held, insider effect, and effective corporate governance. The results are supported by the theoretical expectation formulated in chapter 3, and wage analyses in industrial and transitional countries. For instance, the significant coefficient for education is supported by the theoretical expectations and results obtained in other empirical studies. Canagarajah and Thomas (1997) found those workers in Ghana who have completed tertiary education earned 2.7 times more than their illiterate colleagues.

The variable 'insider' suggested that one's relation to the employer has an influence one's wages. This result supports the findings that kinship networks play an important role in the Ghanaian labor market. Barr and Oduro (2002) in a study on ethnic fractionalization in an African labor market found that a large proportion of the earning differentials of the labor market could be explained by ethnic fractionalization of the labor market.

The institutional variable "effective corporate governance", had a positive impact on wages. Effective corporate governance ensures that employers deal with their workers in a fair and equitable manner in wage setting. Union membership was however, negative and significant contrary to theoretical expectations. A possible explanation may be that employers set higher wages in an attempt to prevent their enterprise from becoming unionized, or to compete with union employers in recruiting qualified workers. Other empirical studies in a number of African countries support this result. For instance, the presence of trade unions in most African countries is generally associated with more firm provided, non-wage incentives such as increase social welfare (e.g., funeral allowance, health insurance and so on).

Secondly, PEs and SOEs differed in terms of ownership type, personal characteristics (age, education, marital status, gender, position and number of years with the enterprise) and institutional factors (type of enterprise, sector of employment and personal contact with employers). In both SOEs and PEs, the coefficient for males was negative but only significant in the former. Among possible reasons for the differential would be government policy in favor of female employees, local and international pressure for equal treatment of females in the labor market. The variable, marital status had a positive influence on wages in both cases but was only significantly in SOEs. The result contradicts previous studies in Ghana that found married premiums not significant, although married workers are found to be more productive than unmarried colleagues.

The coefficients of age was found to be positive in both privatized and SOEs but only significant in SOEs, revealing a positive correlation between wages and the years worked outside the enterprise in SOEs. SOEs are seen to reward workers with outside experience. The coefficient of dependency ratio was positive but only significant in SOEs. The nature of this income disparity between PEs and SOEs in our analysis may be accounted for by the consolidated salary structure in SOEs compared with the variation allowance calculations in PEs, where social responsibilities and obligations of workers are separately considered.

Education was found to be positive and significant for workers in SOEs whereas it was negative and insignificant in PEs. The result contradicts empirical studies in transitional economies, where the effects of education on earnings show the emerging private sector offering higher wages to educated workers than the rest of the economy. A possible explanation for the differential in both sectors is that the overall level of education in PEs is higher than in SOEs and that additional education is not rewarded. Instead in PEs, workers' productivity is likely measured directly whereas in SOEs productivity is probably measured indirectly via education.

The variables, middle and low-level management, were both positive in SOEs and PEs. However, they were only significant in PEs. Most of the middle and lower-level managers in PEs are professionals who take up the supervisory responsibilities and are paid higher than workers with no responsibilities. In SOEs, most middle and low level managers are also supervisors but relative to workers, they take up less responsibilities. Moreover, they are on the government wage scales, which are lower than in the private sector.

The interaction term gender x insider effect was positive and significant in SOEs but negative and insignificant in PEs indicating that in SOEs, male relatives and kinsmen play an important role in wage determination. In PEs, this effect is absent because of pressure from local and international regulatory agencies including the institute of corporate governance.

Gender in combination with sector worked was positive and insignificant for SOEs but negative and significant for workers in PEs. In recent years, government policy has encouraged employers to pay decent wages to women. While the policy seems to have been embraced by the private industrial sector because of local and international pressure, the same can not be said of SOEs. The policy effect is yet to be seen in the state sector because of bureaucracy and red tape, which hinder quick implementation of policies.

Finally, a job satisfaction model was analyzed to provide answers to selected employment conditions as well as overall job satisfaction. This model had two components. The first was a subjective evaluation model based on three employment conditions – job security, work safety and training opportunities and second on overall job satisfaction. First, workers were asked to rate their satisfaction levels on a 1-5 scale on job security, work safety, and training opportunities.

In the second, they were asked to rate their overall job satisfaction on a 'self-anchoring ladder' on a scale from 0-10. We then used an ordered logit model to estimate these satisfaction models. Results from the employment condition models were mixed.

Does work safety improve with privatization?

Work safety was found not to have improved with privatization. The effects of privatization in Ghana are such that a number of enterprises that have survived have done so by restructuring to reduce cost and be competitive. Most enterprises restructured, *inter alia,* through the use of more capital intensive production methods, by renewing machinery, purchasing more technologically advanced machinery from abroad, and adding new modern units to existing plants. The restructuring has led to an increase in perceived risk. Compared with PEs, work safety was perceived as better in SOEs.

The variable corporate governance had a positive influence on work safety. Corporate governance involves proper links among owners, management and workers to help self regulate the enterprise. Thus, effective corporate governance will compel management to invest in safe and modern equipment to enhance productivity as well as the safety of workers.

In contrast to expectation, the results showed that compared to the reference category of experienced female workers, experienced male workers did not see much improvement in work safety conditions. A possible explanation is that safety investments in jobs performed by experienced males may be lower due to, for instance, scarcity of funds.

PEs and SOEs differed in terms of effective corporate governance, position and interaction terms gender x education, gender x marital status and gender x sector. Effective corporate governance was positive in both cases but only significant for PEs. It implies that the existence of effective corporate governance, particularly in PEs helped improve safety conditions at the work place. The possible reason for the insignificance of corporate governance in SOEs is that though provided by law, various structures and systems of corporate governance are not well developed in SOEs.

Position held had a significant effect on perceived work safety in both SOEs and PEs. In SOEs, middle-level managers, compared with workers, were of the opinion that work place safety has improved whereas in PEs, low-level management were of the opinion that work safety had deteriorated. The differences in opinion between these two categories of enterprises stem from the nature of work of the two groups of management staff. Low-level managers in PEs perform supervisory functions, specifically, working in the field or on factory floors with workers whereas middle-level managers in SOEs perform supervisory functions mainly in the office. Thus, the group in the field may have a better appreciation of safety in the work place than those in the office.

In PEs, the interaction terms gender x marital status and gender x sector were significant and positive. The main reason for this finding is that in PEs, most married males are involved in more demanding and risky jobs and these are the areas that have seen safety improvements. The results also showed that PEs are not doing enough in the industrial sector level as attested to by males in the sector. The estimated coefficient for the interaction term gender x sector was negative and significant. We obtained similar results for educated males in SOEs. Educated males in SOEs felt work place safety has not improved. A possible explanation could be that compared to uneducated males, educated males are more informed about the nature of safety aspects of their jobs.

Does job security increase with privatization?

Job security was found to increase with privatization. In PEs, workers reported to be more secure with their jobs than those in SOEs. A basic problem in SOEs is that they employ too many workers, especially administrative and clerical level staff. Many of these enterprises were in fact designed as vehicles for job creation. Hence they are protected from competition, lack hard budget constraints and have security of tenure of positions. These factors have led to overstaffing and inefficiency. Consequently, the transition from SOE to a privatized enterprise is seen as a threat to job security.

An important variable affecting job security was age. Older workers perceived better job security than younger workers. However, job security decreases with age as the worker approaches retirement-age.

PEs and SOEs differed in terms of marital status, number of years worked with enterprise, and middle-level management. Marital status influence indicated that married workers perceived less job security. The possible explanation may be the perceived fear of married workers because of their additional cost to employers in the form of exemptions from night work and paid leave to take care of children or partner. The number of years of experience with enterprise in the privatized enterprise entered negatively and significantly implying that years worked with the enterprise was no guarantee to job security. In Ghana, most PEs compared with SOEs, prefer young and educated workers straight from the universities and trade schools because these workers are more technologically endowed than their colleagues previously employed.

Compared with the base category workers, the result showed high job insecurity among middle-level management workers in SOEs. The possible explanation for this is SOEs have relatively more workers in middle-management positions than PEs. Because middle-level managers are many and swell the management ranks in SOEs they are probably the first to be retrenched or forced into earlier retirement during privatization or employment rationalization exercise.

Does privatization improve training opportunities at the work place?

The estimated coefficient of enterprise type in the training model was negative and significant. It showed that both general and specific training opportunities had not improved with privatization. The institutional variable, corporate governance was positive and significant implying that effective corporate governance in enterprises enhances more training opportunities for workers. In both enterprises, middle-level managers perceived training offered at the work place to be inadequate. A considerable number of workers with middle-level positions in enterprises have average level of education. Among possible reasons for their negative perception are their relative abundance and obstacles to their upward mobility due to limited academic skills. The main features of training seminars and workshops in most enterprises, especially SOEs, are general training not meant to enhance practical skills but to help develop the workforce to face the dynamics of the work environment.

PEs and SOEs differed in terms of sector of employment, education, position, union membership and the interaction terms gender x marital status, gender x experience and gender x education. Educated workers in SOEs relative to colleagues in PEs perceived training opportunities has improved. A possible reason is that because of the skills they possess they are often offered training reflecting the part of employers' belief that individuals with greater formal education can be trained at less cost since they have already demonstrated ability to learn. Married female workers in PEs complained of inadequate training. The main reason for the differential is that because of the nature of work married female workers in PEs do they are less likely to receive formal training. Most married female workers in PEs are assigned tasks that are repetitive and non-cognitive such as sweepers, clerks or canteen attendants with just a few engaged in managerial works. In SOEs, however, a relatively large proportion of married female workers are involved in non-repetitive tasks such as secretaries, project officers, accounts officers and marketing personnel, who receive general training during their employment period in the form of upgrading of skills.

In SOEs, the interaction terms gender x experience and gender x education were also significant but only positive in the former. Apparently, experienced males perceived better training opportunities than experienced females, which could be due to their higher productivity. In PEs, this kind of discrimination is not discernable. A possible explanation for the negative interaction term gender x education is that relative to PEs, educated males in SOEs are more willing to undergo training than management can provide.

Does privatization increase the overall job satisfaction levels?

In terms of overall job satisfaction, the results were mixed. Empirical evidence did not support the hypothesis that a discernible increase in overall job satisfaction exists due to privatization. The effect of privatization on overall job satisfaction could be due to a mix of positive and negative influences, which together lead to statistically insignificant impacts at all degrees of privatization. Thus, there was no direct relationship between privatization and overall job satisfaction.

In the model, institutional factors played a significant role. Wages, union membership and corporate governance were strong factors in determining how workers felt at the work place. Wages offered by SOEs were a strong factor in overall job satisfaction. Intra-firm comparison reveals that PEs pay more than SOEs. Official private-public sector wage differential is 1.60. The effect of union membership was found to be positive and significant, demonstrating the role the trade union congress (TUC) in Ghana has played over the years. The TUC has organized economic forums on workers job satisfaction through memorandums, conference resolutions, seminars and workshops and through representation on bodies dealing with the implementation of specific policies affecting workers. This result might explain why 80% of urban workers in Ghana are trade union members. Age coefficients were negative and significant in both cases, reflecting lower overall job satisfaction levels for older workers. A possible explanation is, in addition to more challenges and increasing conflicts with job, household and community duties older workers face they are more likely to be the first to be laid-off in enterprise restructuring. The significant positive effect for age-squared indicates that the negative age effect tails off probably due to the prospects of early retirement.

The effect of education was found to be significant but negative indicating that additional year of education brings lower satisfaction levels. There is therefore diminishing returns to education. The low satisfaction levels of the higher educated workers might be the result of awareness of educated people in Ghana regarding job prospects, higher aspirations and expectations. Corporate governance was positive and significant indicating that effective corporate governance system, which enables management to improve the working conditions, reflects in workers' job satisfaction levels. Gender in combination with education showed that educated males express low levels of overall job satisfaction compared with their educated female colleagues. The high job satisfaction level of educated female workers may be due to recent government policy to encourage women in the economic development of Ghana. In Ghana, because of gender roles (patriarchal tradition), females have been at a disadvantage in education, job placement and training.

The interaction variable education x age was positive implying that older educated workers who have worked for the enterprise for many years enjoy high levels of satisfaction. A possible explanation is that these workers normally have high productivity rates and usually occupy sensitive management and supervisory positions that attract perks and extra allowance.

PEs and SOEs differed in terms of age, education, sector, wages, union membership and interaction terms gender x sector, education x age. The age results reflect lower overall job satisfaction levels for older workers in SOEs. A possible explanation is, in addition to more challenges and increasing conflicts with job, household and community duties older workers face they are more likely to be the first to be laid-off in enterprise restructuring. The significant positive effect for age-squared indicates that in SOEs, the negative age effect tails off probably due to the prospects of early retirement. The limited opportunities for training, unsafe working environment and few avenues to seek redress for grievances in PEs is reflected in the lower overall job satisfaction for educated workers. The results also indicated that workers in the privatized industrial sector compared with their colleagues in SOEs expressed high levels job satisfaction. Some of the reasons for the high job satisfaction among industrial workers in PEs relative to those in SOEs are the differential opportunities and facilities in the two sectors. Industrial conglomerates such as Lever Brothers, Procter and Gamble and Nestle are dominant in the privatized industrial sector in Ghana, whereas under-performing utility enterprises dominate the SOE industrial sector. We found union membership to be a strong determinant of overall job satisfaction in PEs. The insignificance of the variable in SOEs could be that because of political control of trade unions at the state level, their effectiveness in influencing SOEs is crippled. All workers in SOEs are members of the Trade Union Congress (TUC) and the TUC is the main representative of workers in such matters as collective bargaining -- deliberations on their wages, compensations and retirement benefits. In PEs, it not obligatory to be a member of a trade union hence not all workers are union members.

The variable gender x sector showed that male workers in privatized industrial enterprises expressed low levels of job satisfaction relative to their colleagues in SOEs. One possible explanation for the differential is that in the privatized industrial sector, male workers work in unsafe environment relative to their colleagues in SOEs. The interaction variable education x age implied that in PEs, older educated workers enjoy high levels of job satisfaction. A possible reason is that apart from high wage scales in PEs, older educated workers in PEs usually occupy sensitive management and supervisory positions that attract perks and extra allowance.

To conclude, while privatization has had an important influence on workers monthly wages and job security, the same can not be said for work safety and training opportunities. Overall satisfaction at the work place was found to depend on factors other than privatization. Institutional factors such as union support and effective corporate governance had strong influence on satisfaction at the work place than privatization. Thus on workers wages and job satisfaction, while privatization matters, institutional factors matter just much.

CHAPTER SIX

SUMMARY AND CONCLUSIONS

6.1 Introduction

This chapter presents a summary of the study, including the main conclusions and policy issues that emerged from the study. First, we provide an outline of the study and the main conclusions from the empirical models, highlighting the differences between workers in privatized and state-owned enterprise. Second, we discuss the implications of the findings of the study as they relate to privatization, wages and job satisfaction of workers in our sample, and finally we discuss the importance of the study to policy making.

6.2 The Ghanaian problem

Decades of economic mismanagement and bad policies in Ghana, beginning in the 1970s led to a steady deterioration of the economy, with the situation reaching a crisis point in the early 1980s. The downward economic spiral resulted from a combination of poor domestic policies and adverse external events. Large government deficits during the 1970s, induced in part by the need to support an inefficient parastatal sector and provide public sector employment, led to accelerating rates of inflation. The industrial SOEs were plagued by scarce managerial resources, over staffing, heavy dependence on imports, outmoded and ill-maintained equipment, and low-controlled prices in some cases, culminating to their low share of manufacturing in the GDP.

The service sector was also affected by the crisis. The control of Ghana's transport and communication facilities, the production and management of electricity and water were by the state utility enterprises. Utility rates were low, and the revenue shortfalls were not totally covered by government subsidies. Funding for needed investment in maintenance and spare parts procurements were scarce. Over staffing and poor labor discipline further depleted financial resources resulting in Ghana's infrastructure badly deteriorating.

Most of the state owned enterprises that were expected to be making profits were not even breaking-even. These firms covered their losses largely through arrears owned to the Government for the payment of taxes and social security contributions to other public enterprises, banks, and to local suppliers. Accumulated arrears in corporate income tax payments by SOEs, for example, totaled 14% of GDP in 1983.

The deteriorating economic situation and political instability also contributed to a serious brain drain in Ghana. The general scarcity of managerial and technical skills, compounded by SOEs not allowed to keep salaries and fringe benefits competitive with the private sector, further deteriorated the sector.

To address the deteriorating situation, policy reforms were initiated in the latter part of 1980s. The government, under its restructuring and privatization programs, began to initiate policies aimed at correcting the worsening economic crises. These programs included both monetary and fiscal policies. The main instruments used for the public sector were liberalization of the economy and privatization of state owned enterprises. The privatization program has been going on for over ten years, and evidence at the macro level to date indicates that the program is beginning to pay off.

However, labor adjustment remains one of the most sensitive aspects of privatization in Ghana. The lack of adequate severance policy has contributed to high cost of labor adjustment in Ghana. The extreme generous severance payments negotiated at the enterprise level have been a major blow to the privatization process. While these enterprise-level agreements allowed for flexibility at the firm level, they have led to protracted negotiation with government and created precedents for payment in future layoffs. The inability of the government to pay such generous benefit has caused further delays in privatizing other enterprises

In addition, labor layoffs and retrenchment of workers resulting from the liquidation of state owned enterprises have brought untold hardships to communities. Certain towns have been turned into ghost towns after enterprises providing the major sources of economic activities and employment were liquidated. Many communities providing indirect services such as accommodation to workers, food canteens, shops and entertainment went bankrupt because of the lack of economic activity. Majority of the able-bodied youth has migrated to urban areas, compounding the already existing rural-urban migration dilemma of urban areas. For example, the city of Accra is witnessing what is commonly referred to as the 'dog chain boys' phenomena because these 'new migrants' are seen along the major roads of the city selling dog chains.

Thus, the intended impacts of privatization—increase in domestic industrialization and the emergence of a vibrant private sector as a source of employment -- on the country's economy did not materialize. In the meantime, the socio-economic conditions, poverty, unemployment and health services in the country continue to deteriorate. The situation with respect to employment conditions is worse in the urban sector, as retrenched workers experience losses in earnings and benefits such as free transportation, health care, and subsidized housing. In addition, laid-off workers face the same unemployment rate as the general population (30%) despite a high skill base. The uncertain situation has created an atmosphere of fear, anxiety and apprehension in the country. Threats of strikes and industrial action have therefore become common phenomena in Ghana.

The general insecurity in employment, complaints from workers and evidence of high cost of living, among other factors, have caused the government to delay further implementation of the privatization process. This delay in the implementation of the privatization process has had adverse effects on large enterprises where labor adjustments are needed and the cost to the nation in terms of initial unemployment and compensating payments will be high. Furthermore, doubts have been raised about the rationale of the privatization program and whether it was a better policy option for public enterprise reforms. The fear and anxiety prevailing in the country are largely due to lack of information resulting from inadequate and incomprehensive impact studies at the micro level of the various reform programs on workers. The impact of privatization at the micro level, for example, has received little attention despite its importance to the economic development of the country. The problem can be attributed to, among others, the complexity of the linkage between macro level policy and the living conditions of individuals.

This research looked at two impacts of privatization: the impact on workers wages and job satisfaction. It used a framework based on the World Bank macro-meso-micro analysis to study the effects of privatization on wages and job satisfaction of workers. The main objective of this study therefore was to examine the impact of privatization on the wages and job satisfaction of urban workers in Ghana and to answer the question: does privatization improve wages and job satisfaction? Specifically, to provide answers to:

3. What happens to the wages of urban workers as a result of privatization?
4. What effects has privatization had on workers job satisfaction?
5. What factors influence wages and job satisfaction of workers in privatized and state owned enterprises?

6.3 Theoretical Consideration

The conceptual model developed in chapter 3 called for an approach, which was capable of analyzing how a macro policy affects the microenvironment, particularly, the micro agents -- the workers in our study. The review of theories and models that have been developed for privatization together with empirical research showed that the rationale for privatization mainly centers on theory and empirical evidence on the public versus private efficiency debate, and its implications for corporate governance, management and workers. Theoretical literature mainly duels on three main approaches: the property rights theory, the public choice theory and the Austrian school. Empirical evidence also looks at the hypothesis that SOEs are less efficient than are private firms.

The property rights arguments subscribe to the fact that ownership is characterized by exclusivity and transferability. The former aspect means that the owner is free to choose what to do with his/her asset, his/her freedom being limited only by those restrictions that are explicitly stated in the law. He/she reaps the benefits of his/her decisions and bears the costs. By establishing a direct relationship between owner's ability on how to use his/her property and to bear the consequences of that decision, the exclusivity of ownership creates incentive for him/her to seek the best use for his/her assets. Similarly, the latter aspect implies that the owner has incentives to transfer his/her resources to a more productive owner (since the latter would be willing to pay for the resources more than the income derived from them by present owner). On both those accounts, therefore, private ownership provides incentives for the resources to move to their highest-value uses. Hence, PEs provide more efficiency and value for assets than SOEs.

The 'public choice' school, on the other hand, emerged in the late 1940s and 1950s in response to the growing sense that orthodox economics, through its acceptance of governmental benevolence, neglected the importance of the political process in shaping and implementing policy. The public choice theorists argue that because of the general self-interest hypothesis, politicians, public officials and managers are seen as people seeking their own interests. Like everyone else in society, they do not adhere to the optimal rules. Therefore, freeing an enterprise from the burden of political interference and non-market criteria limits politician's ability to redirect the enterprise activities in ways that promote their personal agenda. Private ownership is superior to public ownership since the former clarifies the objectives of the enterprise and leads it to enhanced economic performance.

The Austrian critique of public enterprise centers on the role or rather the absence of competition and entrepreneureship. In the Austrian tradition, the market is viewed as a process characterized by freedom of entry, non-parametric prices, and a profit-and-loss system. Public ownership restricts the role of all these elements. Privatization, according to them, is tantamount to the stimulation or introduction of competition, which leads to higher efficiency and responsiveness in better quality and variety of goods and service to people.

A survey of literature compiled by Galal *et al.* (1996) between public and private enterprise differences points out that the differentials can be assigned to one of two categories: differences in objectives and differences in constraints. On objectives, private enterprises pursue profits whilst public enterprises may pursue whatever the government wants and is able to finance. Thus, public enterprises can be used to promote the welfare of politicians by hiring a large number of redundant workers. On constraints also, they argue that evidence abounds in some public enterprises forced to operate with insufficient autonomy (for example, cannot fire unskilled workers, directive as to application of funds). Theoretical constraints on the private sector include the frequent claim in poorer developing countries that large, capital-intensive projects require public enterprises because the tiny private sector does not have adequate access to capital.

The theories on the rationale for privatization were summarized in a principal-agent framework. A framework using the principal-agent theory enabled us to link the relationship among owners, management and employees. The principal-agent theory by using the metaphor of 'contract', attempts to describe the agency relationship in which one party (the principal) delegates work to another (the agent) who performs the work. Principal-agent models have been employed in many different academic fields in order to explain relationships among actors including employers (principal) and employees (agents); consumer (principal) and producer (agent); and in various political science sub-fields, in which bureaucrats are agents of the executive, or the governments of third world countries as agents of international lending institutions, and so on. Using the principal-agent theory as the analytical framework, we were able to conclude that both SOEs and privatized enterprises have principal-agent problems engendered in their contractual arrangements, which affects wages and job satisfaction of worker.

During privatization, the greater changes to the principal-agent relationship between the government (the principal) and the management (the agent) will likely occur on the principal side of the relationship since the management replacement is not a necessary condition for privatization. After privatization, the new set of owners becomes the new 'principals'. The differences in ownership therefore result in a very different 'principal' in terms of control. For instance, privatization is expected to remove institutional constraints such as political interference and multiple objectives. In particular, it is expected to narrow the objectives of the enterprise to profit maximization. Private owners, even if multiple, are expected to pursue this objective. For the same reason, they are expected to be able to monitor managers and also to provide incentives to management to perform well. Finally, management itself is expected to face fewer political and bureaucratic constraints in pursuing profit maximization. As a result, efficiency in PEs is likely to be enhanced.

Using Laffont and Tirole's (1991) models of labor-managed enterprises enabled us to predict that the impact of privatization may either increase or decrease wages and job satisfaction depending on the assumptions made regarding the enterprise's market power and objectives, worker bargaining power, and the nature of wage determination in the enterprise. In addition, the conceptual framework presented showed that socio-economic characteristics of a worker and institutional factors of enterprises were important variables to be considered in analyzing wages and job satisfaction. The socio-economic factors that are expected to play a role in the determination of wages and job satisfaction are the so called human capital variables -- education, experience, and skills -- social variables such as age, marital status, family size and gender, and institutional variables such as unions, sector and corporate governance.

Most labor literature views most of the socio-economic factors considered in this study as investment in human capital. Human capital has proven important in enhancing long-term economic growth, since a more educated workforce is likely to increase worker productivity, show innovation behavior and facilitate the adoption and use of new technologies. The increasing speed of technological change that enterprises face today and increasing international economic integration call for workers to have higher skill levels in order for enterprises to be competitive. One reason is that more skilled employees can adjust easily in the economic and technological environment than less skilled workers. Workers that have invested in any of these factors are expected to earn higher and experience higher job satisfaction.

Institutional factors such as ownership type, and sector of employment relate to enterprise level factors that are expected to increase the efficiency of the enterprises. Other factors such as unions and corporate governance relate to checks on management that are aimed to improve management-worker relationships. All these factor, all things being equal, are expected to lead to higher wages and better employment conditions.

The main socio-economic variables are the human capital variables (education, age and experience) which we hypothesized to influence satisfaction levels positively. For instance, we expect well-educated and experienced workers to enjoy high levels of satisfaction at the work place. Similarly, we expect employees who have worked with an enterprise for a longer period to be given the chance to attend more specific training to increase their firm-specific skills. However, empirical evidence from developed and transitional economies finds education to be negatively correlated with satisfaction levels. Clark and Oswald (1996) found satisfaction levels declining with education holding income constant. They assigned higher aspirations on the part of educated workers as the reason for the decline in satisfaction levels. In the same study, they found satisfaction levels also to be negatively correlated with comparison income. In this study, because of the low wages in the public sector compared to the private sector, we hypothesize that wages will impact positively on satisfaction levels. We believe the wage impact will be more pronounced in SOEs, since the workers in SOEs are worse off relative to their peers in PEs.

The institutional variable, degree of privatization, is an important determinant of satisfaction levels. For example, because of inability of firms to collect the returns from investment in general skills, we expect PEs to offer less training opportunities than SOEs. Moreover, because of cost cutting operations, we hypothesize that investment in health and safety facilities will be smaller in PEs than in SOEs. Finally, we perceive job security to be better in PEs than in SOEs because of the transitional nature of SOEs in Ghana. Moreover, most workers still face retrenchment if they remain in SOEs.

Thus, based on theoretical and empirical discussions concerning wage and satisfaction differentials in PEs and SOEs, there are several reasons to expect that PEs wages and satisfaction levels might exceed that of workers in SOEs. First, if workers perceive that job security is more tenuous in PEs than SOEs, they may demand a wage premium and better employment conditions for work in the privatized enterprises. Second, PEs may need to pay higher wages and offer attractive working conditions to attract workers from SOEs, assuming that PEs are reluctant to hire from the pool of unemployed. Third, PEs may also pay efficiency wages and offer flexible working conditions to induce greater effort among the workforce. Nevertheless, alleged wage discriminations and recent developments in the corporate world cast doubt on the above assertions. In the next section, we present data collection procedures to enable us perform empirical test to predict the impact of these factors on workers wages and satisfaction levels in both PEs and SOEs.

6.4 Empirical Results

The empirical aspect of the study involved 300 workers interviewed in selected urban areas in Ghana (Accra, Jaupon, Akosombo and Tema) between March to September 2000. In all, we interviewed 133 workers from 6 SOEs and 167 from 7 PEs. For the PEs, we selected enterprises that had been privatized for at least four years, had at least 500 employees, urban-based and an important contributor to GDP. For SOEs, we selected enterprises currently under the supervision of the State Enterprises Commission and are subjected to the performance, monitoring and evaluation system and had at least 500 employees.

The descriptive statistics show sample distribution between workers in PEs and SOEs. Male workers make up 77% of the SOE workforce; the corresponding figure for PEs is 67%. The number of females employed in PEs is higher than those in the SOEs -- 33% and 23% respectively, reflecting a rise in female employment in areas such as canteen attendance, factory hands and packers in the private sector. The average age of the privatized enterprise workforce is 37, and in state owned enterprise 45.

Results from our analysis show that in terms of formal education, the average for all workers was 11 years with workers in PEs having attended more formal schooling than those in SOEs: 12 and 9 years on the average, respectively. The number of workers classifying themselves as single was higher in PEs than in SOEs: 55% and 17%, respectively. In terms of position held, 44% of all staff members in PEs were reported to be in management positions whereas it was 64% in SOEs. The average monthly wage for workers in the two sectors was 642 thousand cedis ($91 at December 2000), with workers in PEs earning on average 753 thousand cedis ($101) and those in SOEs earning 503 thousand cedis ($71).

The first question in our study was based on the effects of privatization on monthly wages, which we defined as the present post privatization monthly wages in PEs and the current monthly wages of full-time workers in SOEs. The question was: *do wages increase with privatization?* The model used to answer this question was the standard earnings function, estimated with OLS. Pooled as well as separate models for PEs and SOEs were estimated. The analysis produced two key results.

First, workers reported monthly wages were shown to be positively related to privatization. The result is in accordance with our theoretical expectations and results obtained in other empirical studies. For example, Flanagan 1995; Vecernik 1995; Haskel and Szymanski 1993 and Brainerd 2001 found a positive correlation between privatization and higher wages. Empirical evidence on ownership type and aggregate earnings data in Ghana also supports these results. In terms of aggregate earnings, the overall private-public earnings ratio in Ghana is currently around 1.60. The high private sector wage premium, controlling for other factors, probably reflects greater competition, export orientation of PEs and expansion of the private sector in Ghana.

The variables that affected workers wages positively in both enterprises include dependency ratio, age, education, marital status, position held, insider effect, and effective corporate governance. The results are supported by the theoretical expectation formulated in chapter 3, and wage analyses in industrial and transitional countries. For instance, the significant coefficient for education is supported by the theoretical expectations and results obtained in other empirical studies. Canagarajah and Saji (1997) found those workers in Ghana who have completed tertiary education earned 2.7 times more than their illiterate colleagues.

The variable 'insider' suggested that one's relation to the employer has an influence on one's wages. This result supports the findings that kinship networks play an important role in the Ghanaian labor market. Barr and Oduro (2002) in a study on ethnic fractionalization in an African labor market found that a large proportion of the earning differentials of the labor market could be explained by ethnic fractionalization of the labor market.

The institutional variable "effective corporate governance", had a positive impact on wages. Effective corporate governance ensures that employers deal with their workers in a fair and equitable manner in wage setting. Union membership was however, negative and significant contrary to theoretical expectations. Other empirical studies in a number of African countries support this result. For instance, the presence of trade unions in most African countries is generally associated with more firm provided, non-wage incentives such as increase social welfare (e.g., funeral allowance, health insurance and so on).

Second, PEs and SOEs differed in terms of ownership type, personal characteristics (age, education, marital status, gender, position and number of years with the enterprise) and institutional factors (type of enterprise, sector of employment and personal contact with employers). In both SOEs and PEs, the coefficient for males was negative but only significant in the former. The variable, marital status had a positive influence on wages in both cases but was only significantly in SOEs. The result contradicts previous studies in Ghana that found marriage premiums not significant, although married workers are found to be more productive than unmarried colleagues.

The coefficients of age was found to be positive in both PEs and SOEs but only significant in SOEs, revealing a positive correlation between wages and the years worked outside the enterprise in SOEs. SOEs are seen to reward workers with outside experience. The coefficient of dependency ratio was positive but only significant in SOEs. Education is found to be positive and significant for workers in SOEs whereas it was negative and insignificant in PEs. The result contradicts empirical studies in transitional economies, where the effects of education on earnings show the emerging private sector offering higher wages to educated workers than the rest of the economy.

The variables, middle and low-level management, were both positive in SOEs and PEs. However, they were only significant in PEs. The interaction term gender x insider effect was positive and significant in SOEs but negative and insignificant in PEs indicating that in SOEs, male relatives and kinsmen play an important role in wage determination. In PEs, this effect is absent because of pressure from local and international regulatory agencies including the institute of corporate governance. Gender in combination with sector worked was positive and insignificant for SOEs but negative and significant for workers in PEs.

Finally, a job satisfaction model was analyzed to provide answers to selected employment conditions as well as overall job satisfaction. This model had two components. The first was a subjective evaluation model based on three employment conditions – job security, work safety and training opportunities and second on overall job satisfaction. First, workers were asked to rate their satisfaction levels on a 1-5 scale on job security, work safety, and training opportunities.

In the second, they were asked to rate their overall job satisfaction on a 'self-anchoring ladder' on a scale from 0-10. We then used an ordered logit model to estimate these satisfaction models. Results from the employment condition models were mixed.

Does work safety improve with privatization?

Work safety was found not to have improved with privatization. The effects of privatization in Ghana are such that a number of enterprises that have survived have done so by restructuring to reduce cost and be competitive. The restructuring has led to an increase in perceived risk. Compared with PEs, work safety was perceived as better in SOEs. The variable corporate governance had a positive influence on work safety. Corporate governance involves proper links among owners, management and workers to help self regulate the enterprise. Thus, effective corporate governance will compel management to invest in safe and modern equipment to enhance productivity as well as the safety of workers. In contrast to expectation, the results showed that compared to the reference category of experienced female workers, experienced male workers did not see much improvement in work safety conditions.

PEs and SOEs differed in terms of effective corporate governance, position and interaction terms gender x education, gender x marital status and gender x sector. Effective corporate governance was positive in both cases but only significant for PEs. It implies that the existence of effective corporate governance, particularly in PEs helped improve safety conditions at the work place.

Position held had a significant effect on perceived work safety in both SOEs and PEs. In SOEs, middle-level managers, compared with workers, were of the opinion that work place safety has improved whereas in PEs, low-level management were of the opinion that work safety had deteriorated. In PEs, the interaction terms gender x marital status and gender x sector were significant and positive. The results also showed that PEs are not doing enough in the industrial sector level as attested to by males in the sector. The estimated coefficient for the interaction term gender x sector was negative and significant. We obtained similar results for educated males in SOEs.

Does job security increase with privatization?

Job security was found to increase with privatization. In PEs, workers reported to be more secure with their jobs than those in SOEs. A basic problem in SOEs is that they employ too many workers, especially administrative and clerical level staff. Many of these enterprises were in fact designed as vehicles for job creation. Hence they are protected from competition, lack hard budget constraints and have security of tenure of positions. These factors have led to overstaffing and inefficiency. Consequently, the transition from SOE to a privatized enterprise is seen as a threat to job security. An important variable affecting job security was age. Older workers perceived better job security than younger workers. However, job security decreases with age as the worker approaches retirement-age.

PEs and SOEs differed in terms of marital status, number of years worked with enterprise, and middle-level management. Marital status influence indicated that married workers perceived less job security. The number of years of experience with enterprise in the privatized enterprise entered negatively and significantly implying that years worked with the enterprise was no guarantee to job security. Compared with the base category workers, the result showed high job insecurity among middle-level management workers in SOEs.

Does privatization improve training opportunities at the work place?

The estimated coefficient of enterprise type in the training model was negative and significant. It showed that both general and specific training opportunities had not improved with privatization. The institutional variable, corporate governance was positive and significant implying that effective corporate governance in enterprises enhances more training opportunities for workers. In both enterprises, middle-level managers perceived training offered at the work place to be inadequate. A considerable number of workers with middle-level positions in enterprises have average level of education.

PEs and SOEs differed in terms of sector of employment, education, position, union membership and the interaction terms gender x marital status, gender x experience and gender x education. Educated workers in SOEs relative to colleagues in PEs perceived training opportunities has improved. Married female workers in PEs complained of inadequate training.

In SOEs, the interaction terms gender x experience and gender x education were also significant but only positive in the former. Apparently, experienced males perceived better training opportunities than experienced females, which could be due to their higher productivity. In PEs, this kind of discrimination is not discernable.

Does privatization increase the overall job satisfaction levels?

In terms of overall job satisfaction, the results were mixed. Empirical evidence did not support the hypothesis that a discernible increase in overall job satisfaction exists due to privatization. The effect of privatization on overall job satisfaction could be due to a mix of positive and negative influences, which together lead to statistically insignificant impacts at all degrees of privatization. Thus, there was no direct relationship between privatization and overall job satisfaction.

In the model, institutional factors played a significant role. Wages, union membership and corporate governance were strong factors in determining how workers felt at the work place. Wages offered by SOEs were a strong factor in overall job satisfaction. Intra-firm comparison reveals that PEs pay more than SOEs. Official private-public sector wage differential is 1.60. The effect of union membership was found to be positive and significant, demonstrating the role the trade union congress (TUC) in Ghana has played over the years. Age coefficients were negative and significant in both cases, reflecting lower overall job satisfaction levels for older workers. The significant positive effect for age-squared indicates that the negative age effect tails off probably due to the prospects of early retirement.

Education was found to be significant but negative indicating that additional years of education brings lower satisfaction levels. There is therefore diminishing returns to education. Corporate governance was positive and significant indicating that effective corporate governance system, which enables management to improve the working conditions, reflects in workers' job satisfaction levels. Gender in combination with education showed that educated males express low levels of overall job satisfaction compared with their educated female colleagues. The interaction variable education x age was positive implying that older educated workers who have worked for the enterprise for many years enjoy high levels of satisfaction.

PEs and SOEs differed in terms of age, education, sector, wages, union membership and interaction terms gender x sector, education x age. The age results reflect lower overall job satisfaction levels for older workers in SOEs. The significant positive effect for age-squared indicates that in SOEs, the negative age effect tails off probably due to the prospects of early retirement. The limited opportunities for training, unsafe working environment and few avenues to seek redress for grievances in PEs is reflected in the lower overall job satisfaction for educated workers. The results also indicated that workers in the privatized industrial sector compared with their colleagues in SOEs expressed high levels job satisfaction. We found union membership to be a strong determinant of overall job satisfaction in PEs. All workers in SOEs are members of the Trade Union Congress (TUC) and the TUC is the main representative of workers in such matters as collective bargaining -- deliberations on their wages, compensations and retirement benefits. In PEs, it is not obligatory to be a member of a trade union hence not all workers are union members.

The variable gender x sector showed that male workers in privatized industrial enterprises expressed low levels of job satisfaction relative to their colleagues in SOEs. The interaction variable education x age implied that in PEs, older educated workers enjoy high levels of job satisfaction.

To sum up, while privatization has had an important influence on workers monthly wages and job security, the same can not be said for work safety and training opportunities. Overall satisfaction at the work place was found to depend on other factors other than privatization. Institutional factors such as union support and effective corporate governance had strong influence on satisfaction at the work place than privatization. Thus on workers wages and job satisfaction, while privatization matters, institutional factors matter just much.

6.5 Policy Implications of the Study

The findings of this study have some policy implications. The empirical models have identified some of the issues the government has to address if it hopes to have a smooth privatization process. Our study shows that privatization can affect not only wages but also other aspects of the labor market such as job security, health and safety and training opportunities. The study finds high insecurity among SOE workers probably as a result of the pervasive overstaffing problems in these enterprises, which often lead to mass layoffs and retrenchment during privatization.

The study finds that "corporatization" has led to greater mechanization and thus improvement in health and safety at the work place. It has also led to improved training opportunities for workers. However, privatization has not led to improved work safety and training opportunities. Workers still employed in PEs report of less improvements in work safety and training opportunities. Private sector regulators should be active in checking PEs, regarding work place safety and training for workers. A situation should not arise where sold SOEs become 'sweatshops' with no human capital development for workers employed in such enterprises.

The analysis on factors that affect wages reveals that returns to higher education are quite high in Ghana, particularly at the professional level. The nature of post-primary education may be one of the factors accounting for the low incremental returns to low level education holders compared to their higher educated counterparts in Ghana. Until recently, the system of education consisted of up to 17 years of pre-university education: six years of primary school, followed by four years of middle school and seven years of secondary school. After pre-university education, higher education includes professional, polytechnic, or university education. All these years of education equip the worker with general training. Thus, a person who does not make it to the professional, polytechnic or university level and drops out has no specific employable skills. Such persons often earn less when employed.

The analysis also reveals the importance of institutional factors in determining job and work satisfaction levels of workers. Union membership and corporate governance were strong factors in determining how satisfied or how good workers felt at the work place. The government and private sector regulators should take these issues into consideration. They should get unions involved in the welfare of workers and strengthen corporate governance at the work place. All the elements (for instance, board of directors, board structures, board operations, standards and specifications, report of stockholders meetings and annual audited financial reports) which constitute effective corporate governance should be instituted in both PEs and SOEs.

Privatization is found to influence the wage levels of workers and job security. The government should therefore be prudent in announcing enterprises slated for privatization. Once an enterprise becomes a candidate for privatization, the process of privatization should be smooth and fast to avoid panic among workers[22]. Thus, in terms of policy implications, the study supports, among other, the suggestions of Kikeri (1998) to governments in managing the privatization process. The government can demonstrate to workers the impact of the program on them by doing the following:

- Explain the rationale, costs and benefits of privatization to the workers. Workers opposition to privatization often escalates because government fails to involve labor unions and workers in the privatization process by addressing their concerns early in the privatization process.
- Describe the incentives and social safety net measures being instituted by the government. Often, the lack of information about better benefits elsewhere have created uncertainties for workers and increased their opposition to reform. Alternative employment arrangement, training, severance policy and other supporting measures should be explained to the workers. Workers could be supported to pursue further studies, especially at the professional levels.
- Enact laws and ensure that all regulatory bodies appointed to look into the affairs of private enterprises and workers are working properly. The government should make sure private enterprises operate within the labor laws by insisting on work place safety (health and environment) and making sure workers are provided with the necessary safety working gears to work.
- Inform workers about regulatory and other arrangements being designed to protect workers from bad private managers who exploit them for personal gains. There should be enough checks and balances to ensure that company management, who act as principals, actually do so well. Workers in privatized enterprises should be well protected, especially, concerning their working conditions.

- Think of alternatives to privatization by instilling efficiency and effective measures in SOE operations since satisfaction levels compare favorably with privatized enterprises. For example, State Enterprises Commission (SEC) should be strengthened to carry out its regulatory oversight on SOEs, especially, through the performance monitoring and evaluation system. In addition, some vital SOEs could be maintained but restructured with clear mandate and objectives devoid of political interference since job satisfaction of workers does not depend on privatization.

6.6 Limitations of the Study and Implications for further Research

Before we provide some suggestions for further research, it is important to give some drawbacks or limitations to this research and how it should be dealt with in future. First, though several of the variables in our study did conform with various studies on earnings levels, the empirical analyses show that other variables are more important in explaining the job satisfaction levels of workers than privatization. Union membership and effective corporate governance were as important as the type of ownership. With this new insight, the differences in wages and job satisfaction levels can be re-examined from a new theoretical perspective and appropriate hypothesis deduced for further investigation.

Second, the measurement issue of overall job satisfaction might have also influenced the conclusions of the study and its general application. Several issues related to measuring subjective job satisfaction remains. For example, to what extent is the measurement influenced by monetary mood at the time of completing the scale, and to what extent is the validity of the self-reported nature of this measure? Psychologists complain of conscious distortions and response artifacts in this type of measure. For it is possible that persons may at some level be unhappy but for some reasons label themselves being happy and therefore on a higher level on the ladder. The loaded nature of the overall job satisfaction question and how the individual weighs the various elements of the question exacerbates the problem[23]. The use of a more specific, well-defined concept and measures like that of the interviewer rating could be used in future studies.

Third, analyses into the behavioral models should take a comprehensive approach like the three-stage approach (macro-meso-micro approach) attempted in this study. This study reveals that a small proportion of demographic variables could be accounted for in both the wages and job satisfaction models. Thus, the integration of macro-meso data at the micro level is very crucial if the effects of the macro policy are to be detected.

Forth, the number of respondents, the nature of the questionnaire and the type of sample might have influenced our conclusions. The questionnaire could be better by being more comprehensive to capture the moods, beliefs and aspirations of workers and applied to a larger sample. In addition, we need a sample that reflects variance in other potential causal variables such as size of the enterprises, and a representative set of enterprises (i.e. nature of market structure – enterprises operating in competitive and noncompetitive market structures).

Last, it would be interesting to conduct detailed enterprise-level study to examine the wages and job satisfaction issues using case studies with an interdisciplinary approach. Appropriate sociological, psychological and economic approaches could be used to collect information on individuals wages, expenditure, opinions, beliefs and aspirations using this study as a guide to the development of this kind of research. Such an approach is expensive and the resource constraints limited us.

Despite the limitations and weakness outline above, the information generated from this study is useful in guiding government policy in privatization and also serves as a source of valuable information for workers in privatized and state owned enterprises whose fear and anxiety are caused by the lack of information on policy reforms. In addition, the study reveals the importance of manager-employee relationship in the principal-agency paradigm.

APPENDIX II

Table A1: Statistics of odds of belonging to the highest overall job satisfaction level

Variables	Odds of a worker reporting to be on a high overall job satisfaction level (7-10 on the scale) (State owned enterprises)	Odds of a worker reporting to be on a high overall job satisfaction level (7-10 on the scale) (Privatized enterprises)
Overall	.037	.215
Gender		
Male	.023	.156
Female	.008	.060
Age		
20-29	0	.060
30-49	0	.118
50-65	.04	.012
Marital status		
Single	0	.138
Married	.038	.078
Contact with management		
Yes	.008	.018
No	.031	.148
Dependency ratio		
1-2	.016	.012
3-5	.015	.024
6 plus	0	0
Education		
Primary	0	0
Middle school	.015	.048
‘O’ & ‘A’ Levels	.008	.018
Polytechnic	.008	.082
University	0	0
Graduate school	0	.060
Sector		
Service	.016	.156
Manufacturing	.023	.216
Experience		
1-4	0	.012
5-9	.016	.126
10 plus	.016	.030
Position		
Worker	.023	.148
Lower	.015	.050
Middle	0	.012
Wages (“000)		
150-399	0	.060
400-699	.039	.156
700-999	0	.154
1 million plus	0	.024
Degree of Privatization		
0		
30		
40		0
60		0
70		.024
75		.030
100		.030
		.036

APPENDIX III

TABLE 1: Ordered logit model for work safety: PEs and SOEs pooled; dependent variable *Work safety*

			Changes in Predicted probabilities			
Variables	*Coefficients*	*Change*	*Worse*	*Bad*	*Good*	*Very Good*
Constant	3.589 (4.025)	Marginal Effect	-.2777	-.5935	.4990	.3722
Insider	.418 (.803)	No Relation to Relation	-.0324	-.0693	.0582	.0434
Enterprise type						
Privatized	-.795 (.418)	SOE to Privatized	.0615	.1315	-.1105	-.0824
Gender						
Male	1.063 (2.084)	Female to Male	-.0822	-.1758	.1478	.1102
Marital status						
Married	-.005 (.499)	Single to Married	.0004	.0009	-.0007	-.0005
Age	-.194 (.152)	Marginal Effect	.0151	.0322	-.0271	-.0202
Age Squared/100	.001 (.001)	Marginal Effect	-.0001	-.0003	.0002	.0002
Education	.181 (.223)	Marginal Effect	-.0140	-.0300	.0252	.0188
Income	.010 (.354)	Marginal Effect	-.0008	-.0018	.0015	.0011
Sector						
Industry	.436 (.487)	Service to Industry	-.0337	-.0721	.0606	.0452
Experience	.126 (.092)	Marginal Effect	-.0098	-.0210	.0176	.0132
Position						
Middle Level Management	.326 (.359)	Worker to Middle Mgt.	-.0253	-.0540	.0454	.0339
Low level management	-.271 (.274)		.0210	.0448	-.0377	-.0281
Worker						
Union Membership	.574 (.548)	Non-member to Member	-.0445	-.0950	.0799	.0596

Corporate Governance						
Very effective	.947 (.334)	Not Effective to Very Effective	-.0733	-.1567	.01317	.0983
Less effective	.521 (.335)		-.0404	-.0863	.0725	.0541
Not effective						
Interaction Terms						
Gen_Edu	-.132 (.100)	Educated Female to Male	.0102	.0218	-.0184	-.0137
Gen_Mst	.936 (.583)	Married female to male	-.0724	-.1548	.1301	.0971
Gen_Insd	-.698 (.898)	Female related to male	.0540	.1154	-.0970	-.0724
Gen_Expe	.224 (.104)	Experienced female to male	-.0174	-.0372	.0313	.0233
Gen_Sect	-.523 (.546)	Female in service to male	.0405	.0866	-.0728	-.0543
Gen_Age	.055 (.357)	Young female to male	-.0043	-.0091	.0077	.0057
Edu_Age	-.001 (.005)	Young educated to old	.0001	.0003	-.0002	-.0002

Continuation of Table 1

μ_2	2.037 (.2028)
μ_3	4.399 (.2599)
Number of observations	300
Log Likelihood	
- intercept	-349.1803
- final	-372.8624
Chi-square	47.364
Pseudo R^2	.09606

Table 2: Ordered logit model for job security: PEs and SOEs pooled; dependent variable *Job security*

			Changes in Predicted probabilities			
Variables	*Coefficients*	*Change*	***Very insecure***	***insecure***	***secure***	***Very secure***
Constant	-4.026 (4.625)	Marginal Effect	.2306	.7577	-.7380	-.2503
Insider	-1.192 (1.054)	No Relation to Relation	-.0683	.2245	-.2187	-.0741
Enterprise type						
Privatized	1.096 (.429)	SOE to Privatized	-.0628	-.2063	.0199	.0700
Gender						
Male	-1.489 (2.475)	Female to Male	.0853	.2803	-.2730	-.0926
Marital status						
Married	-1.048 (.572)	Single to Married	.0600	.1973	-.1922	-.0652
Age	.316 (.161)	Marginal Effect	-.0181	-.0595	.0579	.0196
Age Squared/100	-.033 (.001)	Marginal Effect	.0002	.0006	-.0006	-.0002
Education	.0772 (..2405)	Marginal Effect	-.0044	-.0145	.0142	.0048
Income	.445 (..430)	Marginal Effect	-.0255	-.0839	.0817	.0277
Sector						
Industry	-.071 (.544)	Service to Industry	.0033	.0108	-.0105	-.0045
Experience	-.057 (.113)	Marginal Effect	-.0098	-.0210	.0176	-.0036
Position						
Middle Level Management	-.640 (.350)	Worker to Middle Mgt.	.0367	.1205	-.1174	-.0398
Low level management	-.143 (.300)		.0082	.0271	-.0264	-.0089
Worker						
Union Membership	-.590 (.592)	Non-member to Member	.0338	.1112	-.1083	-.0367
Corporate Governance						
Very effective	-.399 (.377)	Not Effective to Very Effective	.229	.0752	-.0732	-.0248
Less effective	-.611 (.379)		.0350	.1151	-1121	-.0380
Not effective						
Interaction Terms						
Gen_Edu	.144 (.108)	Educated Female to Male	-.0083	-.0272	.0265	.0090
Gen_Mst	.197 (.650)	Married female to male	-.0113	-.0372	.0363	.0123
Gen_Insd	1.488 (1.125	Female related to male	-.0852	-.2801	.2728	.0925
Gen_Expe	.0123 (.126)	Experienced female to male	-.0007	-.0023	.0023	.0008
Gen_Sect	.150 (.612)	Female in service to male	-.0086	-.0284	.0277	.0094
Gen_Age	-.0102 (.048)	Young female to male	.0006	.0019	-.0019	-.0006
Edu_Age	-.005 (.006)	Young educated to old	.0003	.0010	-.0010	-.0003

Continuation of Table 2

μ_2	3.005 (.249)
μ_3	5.374 (.301)
Number of observations	300
Log Likelihood	
- intercept	-313.208
- final	-357.838
Chi-square	89.260
Pseudo R^2	.13600

Table 3: Ordered logit model for training opportunities: PEs and SOEs pooled; dependent variable *Training opportunities*

			Changes in Predicted probabilities			
Variables	*Coefficients*	*Change*	***Very bad***	***Bad***	***Good***	***Better***
Constant	-3.293 (4.055)	Marginal Effect	.4771	.3004	-.0206	-.7570
Insider	-.269 (.980)	No Relation to Relation	.0039	.0025	-.0002	-.0062
Enterprise type						
Privatized	-1.288 (.387)	SOE to Privatized	.1866	.1175	-.0081	-.2961
Gender						
Male	1.933 (2.146)	Female to Male	-.2802	-.1764	.0121	.4446
Marital status						
Married	.794 (.511)	Single to Married	-.1151	-.0725	.0050	.1826
Age	.018 (.159)	Marginal Effect	-.0026	-.0016	.0001	.0196
Age Squared/100	.000 (.001)	Marginal Effect	.0000	.0000	.0000	.0041
Education	.166 (..211)	Marginal Effect	-.0241	-.0152	.0010	.0382
Income	.458 (.346)	Marginal Effect	-.0664	-.0418	.0029	.1053
Sector						
Industry	.268 (.512)	Service to Industry	-.0388	-.0245	.0017	.0616
Experience	-.072 (.093)	Marginal Effect	.0011	.0007	.0000	-.0017
Position						
Middle Level Management	-.670 (.386)	Worker to Middle Mgt.	.0972	.0612	-.0042	-.1541
Low level management	.282 (.275)		-.0409	-.0257	.0018	.0649
Worker						
Union Membership	.697 (.521)	Non-member to Member	-.1011	-.0637	.0044	.1604
Corporate Governance						
Very effective	.782 (.363)	Not Effective to Very Effective	-.1134	-.0714	.0049	.1798
Less effective	.464 (.362)		-.0674	-.0424	.0029	.1069
Not effective						
Interaction Terms						
Gen_Edu	-.089 (.102)	Educated Female to Male	.0130	.0082	-.0006	-.0206
Gen_Mst	-.660 (.581)	Married female to male	.0957	.0602	-.0041	-.1518
Gen_Insd	-.909 (1.032)	Female related to male	.1318	.0830	-.0057	-..2091
Gen_Expe	.035 (.105)	Experienced female to male	-.0051	-.0032	.0002	.0081
Gen_Sect	-.095 (.584)	Female in service to male	.0138	.0087	-.0006	-.0219
Gen_Age	-.018 (.480)	Young female to male	.0027	.0017	-.0001	-.0043
Edu_Age	-.003 (.005)	Young educated to old	.0006	.0003	.0000	-.0009

Continuation of Table 3

μ_2	1.064 (.143)
μ_3	2.128 (.178)
Number of observations	300
Log Likelihood	
- intercept	-366.625
- final	-402.378
Chi-square	71.50
Pseudo R^2	0.1088

Table 4: Ordered logit model for overall job satisfaction: PEs and SOEs pooled; dependent variable
Overall J*ob satisfaction*

			Changes in Predicted probabilities			
Variables	*Coefficients*	*Change*	***Very unsatisfied***	***Unsatisfied***	***Satisfied***	***Very satisfied***
Constant	1.456	Marginal Effect	-.2509	-.1108	.2375	.1242
	(4.024)					
Insider		No Relation to Relation	-.0009	-.0004	.0009	.0005
	.005					
	(.972)					
Enterprise type						
Privatized	-.471	SOE to Privatized	.0812	.0358	-.0768	-.0402
	(.368)					
Gender						
Male	7.493	Female to Male	-1.2911	-.5699	1.2221	.6389
	(2.141)					
Marital status						
Married	.185	Single to Married	-.0319	-.0141	.0302	.0158
	(.492)					
Age	-.456	Marginal Effect	.0801	.0354	-.0759	-.0397
	(.146)					
Age Squared/100	.003	Marginal Effect	-.0006	-.0003	.0006	.0003
	(.001)					
Education	-.422	Marginal Effect	.0728	.0321	-.0689	-.0360
	(.228)					
Income	1.358	Marginal Effect	-.2342	-.1034	.2216	.1159
	(.347)					
Sector						
Industry	-.067	Service to Industry	.0115	.0051	-.0109	-.0057
	(.501)					
Experience		Marginal Effect				
	-.053		.0091	.0040	-.0087	-.0045
	(.100)					
Position						
Middle Level Management	-.583	Worker to Middle Mgt.	.1005	.0443	-.0951	-.0497
	(.354)					
Low level management	.056		-.0098	-.0043	.0093	.0049
	(.262)					
Worker						
Union Membership	1.143	Non-member to Member	-.1971	-.0870	.1866	.0975
	(.498)					

Corporate Governance						
Very effective	.712 (.353)	Not Effective to Very Effective	-.1228	-.0542	.1163	.0608
Less effective	-.087 (.349)		.0151	.0067	-.0143	-.0075
Not effective						
Interaction Terms						
Gen_Edu	-.327 (.133)	Educated Female to Male	.0564	.0249	-.0534	-.0279
Gen_Mst	-.593 (.581)	Married female to male	.1023	.0452	-.0969	-.0506
Gen_Insd	.717 (1.018)	Female related to male	-.1237	-.0546	.1171	.0612
Gen_Expe	-.086 (.110)	Experienced female to male	.0146	.0066	-.0141	-.0074
Gen_Sect	-.001 (.552)	Female in service to male	.0003	.0001	-.0003	-.0002
Gen_Age	-.570 (.385)	Young female to male	.0098	.0048	-.0093	-.0049
Edu_Age	.016 (.005)	Young educated to old	-.0029	-.0013	.0028	.0014

Continuation of Table 4

μ_2	1.420 (.156)
μ_3	3.522 (.257)
Number of observations	300
Log Likelihood	
- intercept	-357.547
- final	-399.755
Chi-square	84.754
Pseudo R^2	0.10182

Table 5: Job safety ordered logit model : PEs and SOEs compared

	PEs	**SOEs**
Variables	*Coefficients*	***Coefficient***
Constant	5.554	-.165
	(8.769)	(7.064)
Insider	.371	2.411
	(1.118	(1.794
Enterprise type		
Privatized	-.006	
	(.009)	
Gender		
Male	.269	-.799
	(4.797)	(4.491)
Marital status		
Married	-1.433	1.034
	(.896)	(1.00)
Age	-.316	-.023
	(.311)	(.275)
Age Squared/100	.004	.006
	(.003)	(.003)
Education	.031	.308
	(.483)	(.449)
Income	.444	-.062
	(.892)	(.528)
Sector		
Industry	1.556	-.713
	(1.016)	(.837)
Experience	.137	.148
	(.167)	(.193)
Position		
Middle Level Management	-.517	1.320
	(.628)	(.676)
Low level management	-.800	.369
	(.468)	(.438)
Worker		
Union Membership	-.145	.130
	(.629)	(1.362)
Corporate Governance		
Very effective	1.588	.099
	(.587)	(.597)
Less effective	.316	.293
	(.662)	(.519)
Not effective		
Interaction Terms		
Gen_Edu	-.123	-.340
	(.292)	(.197)
Gen_Mst	2.215	.763
	(1.00)	(1.199)
Gen_Insd	-.570	2.656
	(1.196	(2.154)
Gen_Expe	-.233	-.211
	(.196)	(.207)
Gen_Sect	-2.101	1.033
	(1.190)	(.933)
Gen_Age	-.0129	.116
	(.074)	(.094)
Edu_Age	-.001	.002
	(.005)	(.011)

Continuation of Table 5

μ_2	2.985 (.372)	1.379 (.277)
μ_3	6.465 (.560)	3.439 (.362
Number of observations	167	133
Log Likelihood		
- intercept	-.155.892	-159.014
- final	-178.263	-175.162
Chi-square	44.741	32.296
Pseudo R^2	.13531	.098164

Table 6: Job security ordered logit model : PEs and SOEs compared

	PEs	**SOEs**
Variables	*Coefficients*	***Coefficient***
Constant	-.174	-.4.733
	(6.449)	(5.527)
Insider	.017	-.091
	(.356)	(.676)
Enterprise type		
Privatized	-.009	
	(.006)	
Gender		
Male	.623	-.091
	(.382)	(.676)
Marital status		
Married	-.660	-.800
	(.365)	(.550)
Age	.180	-.390
	(.183)	(.225)
Age Squared/100	-.002	-.004
	(.002)	(.002)
Education	-.140	.018
	(.109)	(.108)
Income	.552	.018
	(1.031)	(.623)
Sector		
Industry	.000	-.113
	(.432)	(.430)
Experience	-.138	-.011
	(.071)	(.076)
Position		
Middle Level Management	-.219	-1.636
	(.527)	(.577)
Low level management	.053	-.516
	(.400)	(.502)
Worker		
Union Membership	.025	-1.131
	(.698)	(1.577)
Corporate Governance		
Very effective	-.262	-.554
	(.547)	(.663)
Less effective	-.890	-.496
	(.587)	(.607)
Not effective		
Interaction Terms		
Gen_Edu	-.101	.291
	(..255)	(.301)
Gen_Mst	.826	-1.57
	(.998)	(1.281)
Gen_Insd	1.965	.478
	(1.202)	(6.366)
Gen_Expe	-.080	-.182
	(.164)	(.251)
Gen_Sect	-.223	.333
	(.959)	(1.233)
Gen_Age	-.029	-.403
	(.063)	(.104)
Edu_Age	-.004	-.104
	(.001)	(.013)

Continuation of Table 6

μ_2	-2.263 (.367)	3.680 (.384)
μ_3	4.954 (.459)	4.551 (.437)
Number of observations	167	133
Log Likelihood		
- intercept	-178.879	-123.633
- final	-192.594	-133.77
Chi-square	27.431	20.28
Pseudo R^2	.108760	.10011

Table 7: Training opportunities ordered logit model : PEs and SOEs compared

	PEs	SOEs
Variables	*Coefficients*	***Coefficient***
Constant	8.274	-.4.553
	(8.952)	(7.805)
Insider	.826	.613
	(1.496)	(2.758)
Enterprise type		
Privatized	.004	
	(.007)	
Gender		
Male	-.2.175	-1.229
	(4.799)	(5.739)
Marital status		
Married	1.100	.417
	(.696)	(1.322)
Age	-.293	.180
	(.273)	(.338)
Age Squared/100	.002	-.000
	(.002)	(.004)
Education	-.218	.830
	(.420)	(.644)
Income	-.126	.176
	(.916)	(.494)
Sector		
Industry	1.895	-.398
	(.893)	(1.009)
Experience	.132	-.299
	(.128)	(.260)
Position		
Middle Level Management	-.005	-.937
	(.612)	(.615)
Low level management	.197	.440
	(.413)	(.451)
Worker		
Union Membership	1.459	1.073
	(.809)	(1.176)
Corporate Governance		
Very effective	.756	.670
	(.531)	(.386)
Less effective	.801	.104
	(.589)	(.604)
Not effective		
Interaction Terms		
Gen_Edu	.132	.021
	(.296)	(.235)
Gen_Mst	-1.563	1.233
	(.794)	(1.403)
Gen_Insd	-2.475	-.106
	(1.556)	(3.007)
Gen_Expe	-.152	.293
	(.152)	(.270)
Gen_Sect	-1.545	.151
	(1.010)	(1.121)
Gen_Age	.078	-.061
	(.064)	(.131)
Edu_Age	-.002	-.018
	(.010)	(.016)

Continuation of Table 7

μ_2	1.073	1.412
	(.186)	(.386)
μ_3	2.325	2.480
	(.239)	(.368)
Number of observations	167	133
Log Likelihood		
- intercept	-205.421	-138.786
- final	-229.318	-154.680
Chi-square	47.793	31.788
Pseudo R^2	.109820	.094541

Table 8: Overall job satisfaction ordered logit model : PEs and SOEs compared

	PEs	SOEs
Variables	*Coefficients*	***Coefficient***
Constant	17.762	2.011
	(8.066)	(6.598)
Insider	.295	1.719
	(1.972)	(32.141)
Enterprise type		
Privatized	.005	
	(.007)	
Gender		
Male	5.329	3.644
	(3.664)	(4.822)
Marital status		
Married	.200	.527
	(.659)	(1.095)
Age	-.554	-.571
	(.285)	(.266)
Age Squared/100	.002	.002
	(.002)	(.003)
Education	-1.693	.059
	(.488)	(.496)
Income	.562	1.371
	(.702)	(.530)
Sector		
Industry	1.722	-1.676
	(.823)	(.987)
Experience	-.053	-.085
	(.119)	(.218)
Position		
Middle Level Management	-.254	-.232
	(.497)	(.710)
Low level management	.031	.528
	(.395)	(.464)
Worker		
Union Membership	1.449	.689
	(.617)	(1.199)
Corporate Governance		
Very effective	.330	.9094
	(.571)	(1.199)
Less effective	-.633	.909
	(.582)	(.673)
Not effective		

Interaction Terms	-.114	-.172
	(.232)	(.179)
Gen_Edu		
	-1.246	.179
	(.765)	(1.28)
Gen_ Mst		
	1.069	-.981
	(2.006)	(3.214)
Gen_Insd		
	-.103	.151
	(.144)	(.233)
Gen_ Expe		
	-2.672	2.425
	(.932)	(1.119)
Gen_Sect		
	-.061	-.056
	(.051)	(.108)
Gen_Age		
	.043	.002
	(.011)	(.012)
Edu_Age		

Continuation of Table 8

μ_2	1.553	1.551
	(.236)	(.253)
		4.963
μ_3	3.611	(.614)
	(.381)	
Number of observations	167	133
Log Likelihood		
- intercept	-190.808	-135.099
- final	-227.238	-159.225
Chi-square	72.860	48.25
Pseudo R^2	0.16709	.134338

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SAMENVATTING EN CONCLUSIES

6.0 Introductie

Dit hoofdstuk geeft een samenvatting van het onderzoek, waaronder de belangrijkste conclusies. Als eerste geven we een overzicht van de sociaal-economische situatie in Ghana (6.1), gevolgd door een samenvatting van de theoretische achtergrond (6.2). Daarna komen in 6.2, de voornaamste conclusies uit de empirische modellen aan de orde. In 6.4 bespreken we de relevantie van het onderzoek ten aanzien van beleidsvorming. Tenslotte geven we in paragraaf 6.5 de beperkingen van het onderzoek en worden er aanbevelingen gedaan voor verder onderzoek.

6.1 De sociaal-economische situatie in Ghana

Economisch mismanagement en slecht beleid gedurende de eerste decennia van de zeventiger jaren hebben geleid tot een aftakeling van de economie, die haar crisispunt bereikte in de vroege jaren tachtig. Een combinatie van binnenlandse politiek en ongunstige externe gebeurtenissen heeft geleid tot een neerwaartse economische spiraal. Tijdens de jaren zeventig zorgden grote overheidstekorten, die deels veroorzaakt werden door de noodzaak om een inefficiënte semi-overheidssector te steunen en de publieke sector van werkgelegenheid te voorzien, voor versnelde inflatie. De staatsbedrijven (State Owned Companies, SOE's) werden geplaagd door gebrek aan management, personeelsoverschot, afhankelijkheid van import, ouderwetse en slecht onderhouden apparatuur en in sommige gevallen slecht gecontroleerde prijzen, culminerend in hun lage aandeel in het BBP (Bruto Binnenlands Product).

Ook de dienstensector werd beïnvloed door de crisis. De staatsbedrijven controleerden het transport in Ghana, de communicatie faciliteiten en de productie van elektriciteit en water. De efficiency was laag en de inkomenstekorten werden niet geheel gedekt door overheidssubsidies. De benodigde investeringen in onderhoud en de aanschaf van reserveonderdelen bleven grotendeels achterwege. Personeelsoverschot en slechte arbeidsethos zorgden voor verdere financiële problemen, hetgeen resulteerde in een enorme verslechtering van Ghana's infrastructuur.

De meeste staatsbedrijven die verwacht werden winst te maken, bereikten niet eens het break-even punt. De verliezen van deze bedrijven resulteerden in achterstanden in het betalen van belasting en sociale zekerheids bijdragen aan andere publieke instellingen, banken en lokale leveranciers. De staatbedrijven hadden in 1983 een achterstand in de betaling van inkomstenbelasting ter grootte van 14 procent van het BBP.

De verslechtering van de economische situatie en de politieke instabiliteit droegen ook bij aan een aanzienlijke afvloeiing van hooggeschoolden naar andere landen. De verdere verslechtering van de sector werd verergerd door de schaarste aan management personeel en personeel met technische vaardigheden, doordat het staatsbedrijven niet was toegestaan salarissen en secundaire voorwaarden te bieden die competitief waren met die van de private sector.

Eind jaren tachtig werden politieke hervormingen geïnitieerd om deze verslechterde situatie aan te pakken. Door middel van herstructureringsbeleid en privatiseringsprogramma's begon de overheid de economische crisis aan te pakken. Deze programma's omvatten monetair en fiscaal beleid, alsmede liberalisering van de economie en privatisering van de staatsbedrijven. Het privatiseringsprogramma is gedurende meer dan tien jaar doorgegaan en op macro niveau lijken de programma's vruchten af te gaan werpen.

De aanpassing van arbeid blijkt één van de meest belangrijke aspecten van privatisering in Ghana te zijn. Het gebrek aan een adequaat ontslagbeleid heeft bijgedragen aan de hoge aanpassingskosten in Ghana. De extreem royale ontslagpremies zijn een belangrijke kostenpost in het privatiseringsproces geworden. Terwijl deze overeenkomsten op bedrijfsniveau voor flexibiliteit zorgden, hebben ze tot langdurige onderhandelingen met de overheid geleid en hebben ze precedenten geschapen voor toekomstige privatiseringen. Het onvermogen van de overheid om deze royale uitkeringen te betalen heeft geleid tot een verdere vertraging van het privatiseringsproces.

Daar komt nog bij dat ontslagen en bezuinigingen op personeel veroorzaakt door de liquidatie van staatsbedrijven tot grote armoede onder bevolkingsgroepen heeft geleid. Bepaalde steden zijn veranderd in spooksteden nadat de ondernemingen die voor de meeste economische activiteit zorgden, waren geliquideerd. Vele toeleverende bedrijven die zorgden voor indirecte services als woongelegenheid voor werknemers, kantines, winkels en entertainment gingen failliet. De meerderheid van de jongeren migreerde naar stedelijke gebieden, hetgeen de al bestaande migratie van het platteland naar de stad vergrootte.

De bedoelde impact van de privatisering op de economie – toename van binnenlandse industrialisatie en de opkomst van een vitale private sector als bron van werkgelegenheid is derhalve niet verwezenlijkt. Onderwijl zijn de sociaal-economische omstandigheden, met name armoede, werkloosheid en de gezondheidszorg verder verslechterd. De werkomstandigheden in de stedelijke sector zijn slecht, doordat werknemers te maken krijgen met een achteruitgang in inkomsten en beperking van voordelen zoals gratis vervoer, gezondheidszorg en gesubsidieerde woningen. Daarbij worden, evenals de rest van de bevolking, zelfs hoogopgeleide ontslagen werknemers geconfronteerd met zeer hoge werkloosheid (30 procent). De onzekere situatie heeft een atmosfeer van angst, bezorgdheid en ongerustheid gecreëerd. In Ghana zijn daarom dreigingen van stakingen en industriële acties een bekend fenomeen geworden.

Een vertraging van de verdere implementatie van het privatiseringsproces door de overheid is onder andere veroorzaakt door de algemene onzekerheid over werkgelegenheid en klachten van werknemers. Deze vertraging heeft negatieve effecten op grote bedrijven waar aanpassingen gedaan moeten worden. Bovendien rijzen er twijfels over het privatiseringsprogramma en rijst de vraag of hervorming van de staatsondernemingen niet beter was geweest. De overheersende angst en bezorgdheid in het land worden mede veroorzaakt door een gebrek aan informatie. De impact van privatisering op microniveau heeft bijvoorbeeld veel te weinig aandacht gekregen.

Dit onderzoek heeft twee aspecten van privatisering onderzocht: de impact op werknemerslonen en de impact op arbeidstevredenheid. Om de effecten van privatisering op de lonen en de werktevredenheid van de werknemers te onderzoeken is er gebruik gemaakt van een concept dat gebaseerd is op de macro-meso-micro analyse van de Wereldbank. De volgende deelvragen komen aan de orde:

1. Wat is het resultaat van de privatisering op de lonen van werknemers in stedelijke gebieden?
2. Welk effect heeft privatisering op de werktevredenheid van werknemers gehad?
3. Welke overige factoren beïnvloeden de lonen en de werktevredenheid van werknemers in private bedrijven?

6.2 Theoretische achtergrond

Vanuit theoretisch perspectief staan de volgende theorieën centraal: de eigendomsrechtentheorie, de ‘public choice’ theorie en de Oostenrijkse school.

De eigendomsrechtentheorie is gebaseerd op het feit dat bezit gekarakteriseerd wordt door exclusiviteit en overdraagbaarheid. Exclusiviteit betekent dat de bezitter vrij is in de keuze wat te doen met zijn/haar eigendom; zijn/haar rechten worden slechts beperkt door de restricties die expliciet in de wet staan. Hij/zij vergaart de opbrengsten van zijn/haar beslissingen en draagt de kosten ervan. Hij/zij heeft het recht om zijn/haar middelen over te dragen aan een meer productieve bezitter (die bereid zal zijn meer te betalen voor het eigendom dan de inkomsten die gegenereerd worden door de huidige bezitter). Derhalve produceren de private bedrijven efficiënter dan de overheidsbedrijven.

De ‘public choice’ (publieke keuze) school leert dat ambtenaren, politie en managers niet alleen het algemeen maar ook het eigen belang op het oog hebben. Wat betreft staastsbedrijven impliceert dit dat zij deze vooral ten eigen nutte zullen gebruiken. Privatisering leidt daarom tot een beperking van politieke interventie en de mogelijkheid van de politici om de onderneming te sturen volgens hun eigen agenda. Privatisering zal derhalve de economische prestaties verbeteren.

De Oostenrijkse kritiek op de publieke ondernemingen richt zich op de afwezigheid van concurrentie en ondernemerschap. In de Oostenrijkse traditie wordt de markt gezien als een proces dat gekarakteriseerd wordt door vrijheid van toetreding, non-parametrische prijzen en een winst-en-verlies systeem. Publiek eigendom beperkt de rol van deze elementen. Privatisering komt neer op de stimulering of de introductie van concurrentie, hetgeen leidt tot hogere efficiency en betere kwaliteit en variëteit van goederen en diensten.

Een literatuurstudie door Ahmed Galal et el. (1996) toont aan dat de verschillen tussen publieke en private betrekking hebben op: verschillen in doelstellingen en verschillen in beperkingen. Private ondernemingen hebben als doelstelling het maken van winst, terwijl een publieke onderneming nastreeft wat de overheid wil en wat de overheid kan financieren. De publieke ondernemingen kunnen dus gebruikt worden om de belangen van politici te promoten door bijvoorbeeld te grote aantallen werknemers aan te nemen. Ahmed Galal et al. suggereren ook dat sommige publieke ondernemingen gedwongen worden met onvoldoende autonomie te opereren, bijvoorbeeld dat ze beperkt worden in hun ontslagbeleid. Anderzijds wordt gesteld dat in armere ontwikkelingslanden grote kapitaalintensieve projecten publieke ondernemingen vereisen, omdat de kleine private sector onvoldoende kapitaal heeft.

De theorieën over de principes van privatisering zijn samengevat in een ‘principal- agent’ model dat een relatie legt tussen eigenaars, managers en werknemers.

Tijdens privatisering zullen de grootste veranderingen van de ‘principal- agent’ relatie tussen de overheid (principal) en het management (agent) aan de zijde van de overheid optreden, aangezien de vervanging van het management geen noodzakelijk voorwaarde voor privatisering is. Na privatisering zijn de nieuwe eigenaars de nieuwe principals. De nieuwe principal-agent relaties zullen leiden tot andere vormen van management en van controle. Privatisering verwijdert bijvoorbeeld beperkingen zoals politieke interventie en het hebben van meerdere doelstellingen. Het accent zal komen te liggen op het maken van winst. Voor het maken van winst wordt er van de private eigenaars verwacht dat ze in staat zijn managers te monitoren en dat zij het management zullen aanmoedigen goed te presteren. Dit alles zal resulteren in een efficiëntere manier van aanpak in de private ondernemingen.

Uit de arbeid- management modellen van Laffont and Tirole (1991) volgt dat ten gevolge van privatisering lonen zouden kunnen dalen of stijgen, afhankelijk van de aannames ten aanzien van de doelstellingen, de onderhandelingsmacht van de werknemers en de manier waarop lonen in een bedrijf tot stand komen.

Het conceptuele model toont ook aan dat sociaal-economische eigenschappen van werknemers en institutionele factoren van bedrijven van belang zijn bij het analyseren van lonen en werktevredenheid. De sociaal-economische factoren die een rol spelen zijn de zogenoemde ‘human capital’ variabelen (opleiding, werkervaring en vaardigheden), sociale variabelen (leeftijd, burgelijke staat, familie-grootte en geslacht) en institutionele variabelen (vakbonden, sector en ondernemingsbestuur).

Human capital blijkt belangrijk te zijn voor economische groei op lange termijn. Hoger opgeleid personeel zal naar verwachting de productiviteit van de werknemer verhogen, innovatie bevorderen en het in gebruik nemen van nieuwe technologieën faciliteren. De toenemende snelheid in technologische veranderingen waar ondernemingen mee geconfronteerd worden en de toenemende internationale integratie vragen om hoogopgeleid personeel. Eén van de redenen is dat hoger opgeleide werknemers zich gemakkelijker in de economische en technische omgeving kunnen aanpassen dan lager opgeleide werknemers. Werknemers die in human capital geïnvesteerd hebben zullen daarom naar verwachting meer verdienen en een hogere werktevredenheid hebben.

Wij verwachten eveneens dat werknemers die een langere tijd bij een onderneming hebben gewerkt de kans gegeven worden meer specifieke opleidingen te volgen die hun bedrijfsspecifieke vaardigheden zullen verbeteren. Er bestaat ook literatuur waaruit blijkt dat opleiding negatief gecorreleerd is aan tevredenheidsniveaus (Clark and Oswald (1996). De verklaring is dat hogere aspiraties van de kant van hoogopgeleide werknemers leidt tot afname in tevredenheid. Uit de veronderstellingen van genoemde auteurs volgt ook dat vanwege de lage lonen in de publieke sector vergeleken met de private sector, de lonen in laatstgenoemde sector een positief effect op de tevredenheidsniveaus zullen hebben.

Privatisering wordt verondersteld een belangrijke determinant van tevredenheid te zijn. Vanwege kostenbeparingen verwachten wij dat private ondernemingen minder opleidingsmogelijkheden bieden dan staatsbedrijven. Wij veronderstellen ook dat vanwege kostenreductie-programma's de investeringen in gezondheids- en veiligheidsvoorzieningen bij de private sector kleiner zullen zijn dan bij de overheidsbedrijven. Verder verwachten wij dat werkzekerheid in de private sector beter is dan in de overheidssector vanwege de aanstaande privatisering van overheidsbedrijven. Bovendien worden de meeste werknemers nog steeds geconfronteerd met bedrijfsinkrimpingen bij de staatsbedrijven. Dus, gebaseerd op theoretische en empirische overwegingen aangaande verschillen tussen private en overheidsbedrijven, zijn er verschillende redenen om te verwachten dat lonen en tevredenheidsniveaus van de werknemers in private bedrijven die van de werknemers in de overheidsbedrijven zullen overtreffen. Ten eerste, als werknemers denken dat private bedrijven minder werkzekerheid bieden dan de staatsbedrijven, dan zullen zij wellicht loontoeslag en betere werkomstandigheden eisen voor werk in de private bedrijven. Ten tweede zullen private bedrijven waarschijnlijk hogere lonen en betere werkomstandigheden moeten bieden om werknemers uit de staatsbedrijven aan te trekken, aannemende dat private bedrijven terughoudend zijn in het aanstellen van werklozen. Ten derde zullen private bedrijven wellicht ook hogere lonen betalen en meer flexibele werkomstandigheden bieden om het personeel tot grotere prestaties aan te zetten.

6.3 Empirische resultaten

De studie betreft 300 werknemers die geïnterviewd zijn tussen maart en september in 2000 in geselecteerde stedelijke gebieden in Ghana (Accra, Jaupong, Akosombo en Tema). Totaal hebben we 133 werknemers van 6 verschillende staatsbedrijven geïnterviewd en 167 werknemers van 7 verschillende private bedrijven. We hebben private bedrijven geselecteerd die tenminste vier jaar geprivatiseerd waren, tenminste 500 werknemers hadden en in een stedelijke gebied gelegen waren. Van de staatsbedrijven selecteerden wij soortgelijke bedrijven die bovendien onder overheidstoezicht stonden, en tenminste 500 werknemers in dienst hadden.

77 procent van personeel van de staatsbedrijven bestaat uit mannen; bij de private bedrijven is dat 67 procent. Hieruit blijkt dat het percentage vrouwen dat in private bedrijven werkt hoger is dan in de staatsbedrijven. Het betreft met name kantine personeel en fabrieksarbeiders. De gemiddelde leeftijd van het personeel in private bedrijven is 37, bij de staatsbedrijven is dat 45.

De gemiddelde opleidingsduur voor alle werknemers was 11 jaar; voor de werknemers van de private bedrijven 12 en van de staatsbedrijven 9 jaar. In de private bedrijven werkten meer alleenstaanden dan in de overheidsbedrijven: 55 tegen 17 procent. Ten aanzien van positie bleek dat 44 procent van het personeel van private bedrijven management posities had, tegen 64 procent in de staatsbedrijven. Het gemiddeld maandloon was 753.000 cedis ($101) in de private bedrijven en 503.000 cedis ($71) in de overheidsbedrijven.

De eerste onderzoeksvraag in ons onderzoek betrof de effecten van privatisering op maandlonen, gedefinieerd als huidig post-privatiserings-maandloon in de private bedrijven en huidig maandloon in de staatsbedrijven. De vraag was *zullen lonen door privatisering omhoog gaan?*. Het model dat voor de beantwoording van deze vraag gebruikt werd is de standaard loonfunctie, geschat met OLS. Zowel gepoolde als separate modellen werden geschat. De analyse gaf twee belangrijke resultaten.

Ten eerste, het maandloon van de werknemers bleek positief te zijn gerelateerd aan privatisering. Dit resultaat is in overeenstemming met onze theoretische verwachtingen en met resultaten uit eerder empirisch onderzoek. Zie bijvoorbeeld Flanagan (1995), Vecernik (1995), Haskel en Szymanski (1993), en Brainerd (2001) die ook een positief verband tussen privatisering en lonen vonden. Deze resultaten worden ondersteund door de privaat-publieke inkomensratio in Ghana die op 1.60 ligt. De hoge loonpremie in de private sector houdt waarschijnlijk verband met de grotere concurrentie en export oriëntatie van private bedrijven.

De variabelen die een positief effect hadden op de lonen van de werknemers in beide soorten bedrijven zijn afhankelijkheidsratio, leeftijd, opleiding, burgerlijke staat, positie in het bedrijf, 'insider-outsider effect' (persoonlijke relatie werknemer met management) en effectieve bedrijfsbesturing. De resultaten zijn in overeenstemming met de theoretische verwachting in hoofdstuk 3 en met loon-analyses in industriële en landen in transitie. De significante coëfficiënt voor opleiding wordt bijvoorbeeld ondersteund door de theoretische verwachtingen en resultaten die uit andere onderzoeken verkregen zijn. Canagarajah en Thomas (1997) vonden dat werknemers in Ghana die een derdegraads opleiding hadden voltooid 2.7 keer zoveel verdienden als hun collega's zonder een dergelijke opleiding.

De variabele 'insider-outsider' suggereert dat de relatie tot de werkgever invloed heeft op het loon. Dit resultaat ondersteunt de bevindingen dat persoonlijke netwerken een belangrijke rol spelen op de Ghanese arbeidsmarkt. Barr en Oduro (2000) vinden in hun studie over etnische aspecten op de Afrikaanse arbeidsmarkt dat een groot deel van de differentiaties op de arbeidsmarkt verklaard worden door etnische factoren.

De institutionele variabele 'effectief bestuur' had een positieve impact op lonen. Het lidmaatschap van een vakbond was echter negatief en significant, in tegenspraak met de theorie. Andere empirische studies in een aantal Afrikaanse landen ondersteunen dit resultaat. De aanwezigheid van de vakbeweging wordt in de meeste Afrikaanse landen vooral geassocieerd met goede arbeidsvoorwaarden zoals ziektenkostenverzekering en dergelijke.

Ten tweede private bedrijven en staatsbedrijven verschillen in termen van de andere determinanten; zoals leeftijd, opleiding, burgerlijke staat, geslacht, positie en aantal jaren binnen de onderneming en institutionele factoren (ondernemingstype, werkgelegenheidssector en persoonlijk contact met werkgevers). In zowel staatsbedrijven als private ondernemingen was de coëfficiënt voor mannen negatief, maar was alleen bij de staatsbedrijven significant. De variabele burgerlijke staat had een positief effect op lonen in beide soorten bedrijven, maar was alleen bij de staatsbedrijven significant.

De coëfficiënt voor leeftijd bleek positief te zijn in zowel private als staatsbedrijven. De coëfficiënt voor de afhankelijkheidsratio was positief, maar alleen significant in de staatsbedrijven. Opleiding bleek positief en significant te zijn voor werknemers in staatsbedrijven, terwijl het negatief en niet significant was voor de private ondernemingen. Dit resultaat is niet overeenkomstig empirische studies met betrekking tot overgangseconomieën waar de effecten van opleiding en lonen laten zien dat de private sector in tegenstelling tot de rest van de economie in toenemende mate hogere lonen biedt aan opgeleide werknemers.

De variabelen midden en low-level management waren beide positief in staats- en private bedrijven. De interactie-term 'sekse x insider effect' was positief en significant voor staatsbedrijven, maar negatief en niet significant voor de private bedrijven. In de private sector is dit effect afwezig vanwege lokale en internationale druk. Sekse in combinatie met de sector waarin men werkt was positief en significant voor de staatsbedrijven, maar negatief significant voor de werknemers in de private bedrijven.

Tenslotte werd werktevredenheid geanalyseerd. Dit onderzoek had twee componenten. Het eerste was een subjectief evaluatiemodel van de volgende drie aspecten: werkzekerheid, werkveiligheid en opleidingsmogelijkheden. Eerst werden de werknemers gevraagd hun tevredenheid ten aanzien van deze aspecten op een schaal van 1-5 weer te geven. Ten tweede werd hen gevraagd hun algehele werktevredenheid weer te geven op een schaal van 0-10. Wij hebben een ordered probit model gebruikt om deze tevredenheidsmodellen te schatten. De resultaten worden hieronder besproken.

Verbetert veiligheid door privatisering?

Veiligheid bleek door privatisering niet te verbeteren. Dit houdt mogelijk verband met de noodzaak om kosten te reduceren en concurrerend te zijn. Vergeleken met de private bedrijven, werd werkveiligheid in de staatsbedrijven beter beoordeeld. De variabele bedrijfsbestuur had een positief effect op werkveiligheid. Bedrijfsbestuur omvat goede verstandhoudingen tussen eigenaars, management en werknemers om het bedrijf in goede banen te leiden. Dus, effectief bedrijfsbestuur zal het management ertoe dwingen te investeren in veilig en modern apparatuur om productiviteit en veiligheid van de werknemers na te streven. In tegenstelling tot onze verwachting, lieten de resultaten zien dat in vergelijking met ervaren vrouwelijke werknemers, mannelijke werknemers niet veel verbetering zagen in werkveiligheid.

Ten aanzien van werkveiligheid verschillen private en staatsbedrijven in termen van effectief bestuur en de interactietermen ‘sekse x opleiding’, ‘sekse x burgerlijke staat’ en ‘sekse x sector’. Effectief bestuur was voor beide soorten bedrijven positief, maar was alleen significant voor de private ondernemingen. Dit betekent dat de aanwezigheid van effectief bestuur met name de private bedrijven heeft geholpen de werkveiligheid te verbeteren.

Positie binnen het bedrijf had een significant effect op werkveiligheid in zowel private als staatsondernemingen. In de staatsbedrijven was het middenkader in vergelijking met arbeiders van mening dat werkveiligheid verbeterd was, terwijl in private bedrijven het lagere management van mening was dat de werkveiligheid verslechterd was. De interactietermen ‘sekse x burgerlijke staat’ en ‘sekse x sector’ waren in de private bedrijven significant en positief, hetgeen betekent dat gehuwde mannen en mannen in de sector industrie in de geprivatiseerde bedrijven de werkveiligheid positief beoordelen.

Verbetert werkzekerheid door privatisering?

Werkzekerheid bleek te verbeteren met privatisering. In private bedrijven meldden werknemers dat ze meer zeker waren van hun baan dan degenen die in de staatsbedrijven werken. Een basisprobleem in de staatsbedrijven is dat ze een overschot aan personeel hebben, met name administratief en lager personeel. In feite zijn veel van deze ondernemingen opgericht om banen te creëren. Daarom worden ze beschermd tegen concurrentie, is er sprake van gebrekkig beleid en zijn er te veel banen. Deze factoren hebben geleid tot een personeelsoverschot en inefficiency. Het gevolg is dat de overgang van staatsbedrijven naar private bedrijven gezien wordt als een bedreiging voor werkzekerheid. De variabele ‘leeftijd’ had een belangrijk effect op werkzekerheid. Oudere werknemers ervoeren betere werkzekerheid dan jongere werknemers. Toch neemt werkzekerheid met leeftijd af wanneer de werknemer de pensioensgerechtigde leeftijd nadert.

Private en staatsondernemingen verschilden in termen van burgerlijke staat, aantal jaren binnen het bedrijf en middenkader. De invloed van burgerlijk staat was dat getrouwde werknemers minder werkzekerheid ervoeren. Het aantal jaren ervaring binnen het bedrijf was in private ondernemingen negatief en significant, wat betekent dat jaren werkervaring binnen het bedrijf geen garantie was voor werkzekerheid. In de staatsbedrijven ervaren in vergelijking met lager personeel het middenkader hogere werkzekerheid.

Verbeteren opleidingsmogelijkheden door privatisering?

De geschatte coëfficiënt voor privatisering in het opleidingsmodel was significant en negatief: De institutionele variabele bedrijfsbestuur was positief en significant, wat betekent dat effectief bestuur in ondernemingen tot meer opleidingsmogelijkheden voor de werknemers leidt. In beide soorten ondernemingen ervoer het middenkader management dat de aangeboden opleidingen niet adequaat zijn.

Private en staatsondernemingen verschilden in termen van sector, opleiding, positie, vakbondslidmaatschap en de interactietermen 'sekse x burgerlijke staat', 'sekse x ervaring' en 'sekse x opleiding'. In vergelijking met hun collegae in private bedrijven, ervoeren opgeleide werknemers in staatsbedrijven dat opleidingsmogelijkheden verbeterd zijn. Getrouwde vrouwelijke werknemers in private ondernemingen klaagden over inadequate opleidingen.

De interactietermen 'sekse x ervaring' en 'sekse x opleiding' waren in staatsbedrijven ook significant, met alleen de laatste positief. Blijkbaar ervoeren ervaren mannen betere opleidingsmogelijkheden dan ervaren vrouwen, wat veroorzaakt kan zijn door hun hogere productiviteit. In private ondernemingen komt een dergelijk verschil niet voor.

Verbetert de algemene werktevredenheid door privatisering?

De hypothese dat er door privatisering een waarneembare verbetering in algehele werktevredenheid optreedt kon niet bevestigd worden. Een mogelijke verklaring is dat het effect van privatisering op algehele werktevredenheid een mix is van positieve en negatieve effecten die gezamenlijk tot een statistisch niet-significant effect leiden. Er is dus geen directe relatie tussen privatisering en algehele werktevredenheid.

Institutionele factoren speelden een significante rol in het model. Lonen, vakbondslidmaatschap en bedrijfsbestuur waren belangrijke factoren bij de bepaling van hoe werknemers zich op de werkvloer voelen. Het effect van vakbondslidmaatschap was positief significant, wat laat zien dat de vakbond (TUC) van Ghana in de jaren een belangrijke rol heeft gespeeld. Leeftijdscoëfficiënten waren in beide soorten bedrijven negatief significant, waaruit blijkt dat de algehele werktevredenheid lager is onder oudere werknemers. Het significant positieve effect van leeftijd in het kwadraat laat zien dat het negatieve leeftijdseffect waarschijnlijk afneemt door het vooruitzicht van vervroegd pensioen.

Opleiding bleek significant, maar negatief te zijn, wat er op duidt dat additionele opleidingsjaren lagere tevredenheid geeft. Er is daarom sprake van een afnemende opbrengst van opleiding. Bedrijfsbestuur was positief en significant, wat duidt op de mogelijkheid om via bestuurlijke maatregelen de werkomstandigheden te verbeteren. Sekse in combinatie met opleiding liet zien dat opgeleide mannen een lager werktevredenheidsniveau hebben dan hun vrouwelijke collegae. De interactie variabele ópleiding x leeftijd' was positief wat betekent dat oudere opgeleide werknemers die lange tijd voor hetzelfde bedrijf hebben gewerkt een hoger tevredenheidsniveau hebben.

Private en staatsbedrijven verschilden in termen van leeftijd, opleiding, sector, lonen, vakbondslidmaatschap en de interactietermen 'sekse x sector' en 'opleiding x leeftijd'. Oudere werknemers in de staatsbedrijven hebben een lager tevredenheidsniveau. Echter, het positieve significante effect van leeftijd in het kwadraat geeft aan dat het negatieve leeftijdseffect in staatsbedrijven afneemt door het vooruitzicht op vervroegd pensioen. De lagere algehele werktevredenheid in de private bedrijven wordt bepaald door beperkte mogelijkheden voor opleiding en een onveilige werkomgeving en slechte klachtenregelingen. Vakbondslidmaatschap bleek een sterke determinant van algehele werktevredenheid in private bedrijven te zijn. Alle werknemers van de staatsbedrijven zijn lid van de vakbond (TUC), die de belangrijkste vertegenwoordiger van werknemers in collectieve onderhandelingen is. In private bedrijven is het niet verplicht lid te zijn van een vakbond waardoor niet alle werknemers lid zijn.

De variabele ‘sekse x sector’ liet zien dat mannelijke werknemers in de geprivatiseerde industriële ondernemingen geringe werktevredenheid vertonen. Samenvattend kan gesteld worden dat privatisering een belangrijke invloed heeft gehad op lonen en werkzekerheid, maar niet op werkveiligheid en de opleidingsmogelijkheden. Algehele werktevredenheid bleek ook samen te hangen met andere factoren dan privatisering, zoals steun van de vakbond en effectief bedrijfsbestuur.

6.4 Beleidsimplicaties van het onderzoek

De resultaten van het onderzoek hebben enkele implicaties voor het beleid. Ons onderzoek toont aan dat niet alleen lonen, maar ook andere aspecten van de arbeidsmarkt zoals werkzekerheid, gezondheid, veiligheid en opleidingsmogelijkheden door privatisering beïnvloed kunnen worden. Het onderzoek vindt hoge onzekerheid onder de werknemers van staatsbedrijven, waarschijnlijk vanwege personeelsoverschot in deze ondernemingen wat zal leiden tot massaontslagen en bezuinigingen bij privatisering.

Werknemers in de private bedrijven maken melding van weinig verbetering in werkveiligheid en opleidingsmogelijkheden. Bij privatisering zouden garanties afgegeven moeten worden met betrekking tot de veiligheid en de opleidingen van de werknemers. Voorkomen zou moeten worden dat staatsbedrijven die verkocht worden plaatsen worden waar mensen onder slechte omstandigheden werken (zogenaamde ‘sweatshops’) en waar geen ruimte is voor ontwikkeling van human capital van de werknemers.

De analyse toonde ook het belang van institutionele factoren in de werktevredenheidsmodellen aan. Vakbondslidmaatschap en bedrijfsbestuur waren belangrijke factoren van de tevredenheid van de werknemers. Bij privatisering zou met deze zaken rekening gehouden moeten houden. De vakbonden zouden betrokken moeten worden bij privatiseringsoperaties en effectief bedrijfsbestuur zou in zowel private als staatsbedrijven geïnstitutionaliseerd moeten worden.

Ten aanzien van de uitvoering van het proces van privatisering volgt uit het onderzoek dat de regels opgesteld door Kikeri (1998) in acht genomen dienen te worden. Deze zijn

- De motieven, kosten en opbrengsten van de privatisering dienen aan de werknemers uitgelegd te worden. Oppositie van de werknemers tegen de privatisering escaleert vaak omdat de overheid er niet in slaagt de vakbonden en werknemers in een vroeg stadium van het belang van privatisering te overtuigen.
- Alternatieve werkgelegenheidsovereenkomsten, opleiding, ontslagbeleid en andere ondersteunende maatregelen zouden aan werknemers uitgelegd moeten worden. Werknemers zouden ondersteund moeten worden in het doen van vervolgstudies.
- De overheid zou er borg voor moeten staan dat alle ondernemingen volgens de arbeidswetten opereren door veiligheid af te dwingen en vast moeten stellen of werknemers de benodigde veiligheidstoerusting hebben.
- De werknemers moeten geïnformeerd worden over waarborgen die ontworpen zijn om hun tegen slechte omstandigheden te beschermen.
- Alternatieven voor privatisering ontwikkelen teneinde de efficiency in de staatsbedrijven te verhogen. Enkele vitale staatsbedrijven zouden gehandhaafd kunnen blijven, maar wel

in hergestructureerde vorm met een duidelijk mandaat en doelstellingen zonder politieke interventie.

6.5 Beperkingen van het onderzoek en implicaties voor verder onderzoek

Hieronder volgen op de eerste plaats enkele suggesties voor verder onderzoek. Ten eerste, de empirische analyses laten zien dat andere variabelen dan privatisering belangrijk zijn in het verklaren van werktevredenheidsniveaus van de werknemers. Vakbondlidmaatschap en effectief bedrijfsbestuur werden als belangrijk bevonden. Met dit nieuwe inzicht kunnen verschillen in lonen en werktevredenheid vanuit een nieuw theoretisch perspectief nader onderzocht worden en kunnen nieuwe hypotheses voor verder onderzoek gevormd worden.

Ten tweede, de meting van werktevredenheid zou nader onderzocht moeten worden. In dit verband rijzen vragen als: In welke mate is de meting bijvoorbeeld beïnvloed door financiële stemming op het moment van de meting? Wat is de geldigheid van de zelf-gerapporteerde scores? Het gebruik van een meer specifieke, beter gedefinieerd concepten zouden in toekomstige onderzoeken gebruikt kunnen worden.

Ten derde zouden de drie-fases van macro- meso- micro nader geïntegreerd dienen te worden.

Ten vierde zou het aantal respondenten en de aard van de vragenlijst herziening behoeven.

Ondanks de beperkingen en zwakten die hierboven beschreven zijn, is de informatie die in dit onderzoek gegenereerd is bruikbaar bij het ontwikkelen van overheidsbeleid voor privatisering.

[1] For example, maintain the SOE but restructure them with clear mandate and objectives devoid of political interference.

[2] In principle, the challenges faced by the appraisal of the impact of privatization are no different from those for any policy or program evaluation. In all instances, the impacts themselves are complex, as are the forces that determine them. The structures and systems that link them are changing in fundamental aspects, in part as a result of the interventions and accomplishment of the program. The dynamic interventions between privatization and its environment and its structural characteristics make the impact of the program so dynamic. For the impact of privatization is shaped by the economic and social context of the country and evolves as the context itself changes.

[3] Adadey (1997), The Role of the Mining Industry in the economy of Ghana, A paper presented at a national symposium on the theme: The Mining Industry and the Environment, April 14th and 15th, Minerals Commission, Accra, Ghana

[4] The issue of private versus public sector superiority is a controversial subject and it is examined fully in chapter 3.

[5] Privatization or divestiture means the same in this study.

[6] by transferring all or some SOE's business and assets to a newly formed venture, and the state and investors taking equity stakes in that venture

[7] A survey of workers has shown that the privatization of enterprises in Ghana has seen the emergence of a new private sector in agriculture, service and the manufacturing. This phenomenon can be regarded as a double-sided labor reallocation process. Some people who were not in the labor force have now gained employment and those employed have reported changes in working conditions and job satisfaction. There has been increase in economic activities in the country in the form of workers being able to afford cars (mostly used ones), put up buildings and others offered mortgages to buy houses. There has also emerged a group of workers from universities and other tertiary institutions employed in this new sector who are able to afford durable goods like televisions, refrigerators, stereos and so on that were hitherto not available to workers in public enterprises. Workers with skills who were reallocated from the public enterprises because of privatization have joined this new group to enjoy these facilities. Thus, the status of the vast majority of people employed in the new private sector are determined by the acquisition of new and better skills, and the presence of jobs in the new private sector. The relative importance of the new private sector, because of privatization, has been the transformation of the livelihoods of workers in terms of their ability to afford consumer items like cars, stereos and houses. The presence of a mass reallocation of labor in the new private sector as well as the outflow of workers from public enterprises shows the contribution of privatization to labor mobility in Ghana.

[8] The distinction is not so exact because the wage sector contains some workers, who could be included in the informal sector, that is workers in non-government services and small manufacturing enterprises.

[9] Both of these are conditioned by a whole spectrum of monetary, fiscal and state policies.

[10] In this study, we are more interested in the level between owners and workers. The top management is not our focus though he/she plays an important role in the negotiation of pay and other benefits of workers.

[11] All these personal agenda also hold for modern top management in privatized firm but are more pronounced in the public sector due to weak monitoring system and lack of clear-cut maximization objectives. In the private sector, top management is constrained by several laws including monitoring by owners, fear of takeover, threats of dismissal of top management and bankruptcy laws affecting performance of enterprises.

[12] In reality, there are SOEs that are partially financed by the private sector. For example, many SOEs in Latin America have sold minority shares to the private sector (Walker and Vasconcellos, 1997). However, in Ghana, the lack of private capital makes this practice uncommon.

[13] The main source of capital for PEs is the private sector capital markets. It is only under extreme situations that government capital market comes in the form of a government bail out. This usually happens when the consequences of lack of capital to the PE will have an immense effect on the economy and will affect a large chuck of the society. For example, bail out for PEs such as large utility and transportation enterprises such as airlines are common.

[14] This definition of satisfaction stresses pleasant emotional experience. This may mean either that the worker is experiencing mostly pleasant emotions at the work place or that the worker is predisposed to such emotions, whether or not he/she is currently experiencing them. For example, job security, training opportunities, healthy and safe work environment.

[15] Studies in Ghana have established that firm size affects the earnings of workers (see Glewwe, 1996 and Teal, 1996). Teal summarizes the effect of firm size on earnings as follows: 'Standardizing for skill, workers in small firms, which are those employing between 5 and 29 workers earn 21 per cent more than workers in micro firms i.e., those employing 5 or less. Medium sized firms, i.e., those employing 30 and 100 workers, pay an additional 14 per cent, while the category of large firms, those employing more than 100 workers pay a further 13 per cent. The cumulative effects of these earning differences across firm is that workers in firms employing more than 100 workers earn 55 per cent more than those working in micro firms'... (Teal, 1996). We selected enterprises that have not less than 500 employees because most of the small enterprises were broken up and privatized. Moreover, most of such enterprises no more exist. Most of the big enterprises were privatized in their existing conditions, mostly divested to strategic investors.

[16] Because of small and insignificant differences between pre and post privatization data, we used post privatization data for privatized enterprises and current data for SOEs in the analysis. For instance, SOE workers had not received any pay increase for the four years we considered and the difference in pay in privatized enterprises for the same period was not more than 2%. Pre privatization data for PEs were used as checks to ascertain if workers were actually employed before privatization.

[17] One needs at least 10 years of formal education to be able to work in the formal sector: from primary school to middle school it takes not less than 10 years of formal education.

[18] The number of levels for the partial models is fixed at 5, since pre-testing showed that 5 levels were recognizable and easy to answer.

[19] This is feasible because the ladder we used is arbitrary and can start or finish with any value. Without this normalization there would be $J-1$ number of μ_s to estimate since the number of thresholds is always one smaller than the number of categories. Thus, with normalization ($\mu_1 = 0$) we have $J-2$ number of μ_s to estimate (Greene, 2000).

[20] The number of categories has been adjusted to four levels (0-3) for all the partial as well as overall job satisfaction. This is necessary for the estimation by the econometric software LIMDEP version 7.0 since most levels in the original answers did not have enough variations. For example, most of the workers' response to the ladder of life question is clustered around levels five and six and in the employment conditions some levels have no response(see Table 5.5).

[21] Exponentiating the estimated coefficient gives the expected change in the transformed μ, or the odds of having an event occurring versus not occurring (in our case, moving from one level to another) per unit change in an explanatory variable, other things being equal (see Liao, 1994).

[22] There have been several cited examples in Ghana where workers have pilfered and diverted properties belonging to the enterprises after the government has announced that the enterprise would be privatized in the future (see DIC 2000; IMAS 1999).

[23] Weinstein (1982) found that self-reported happiness was strongly related to an unobtrusive measure of smiling and laughing in an interview, and that the scales correlate moderately with happiness ratings made about respondents by others. Larsen et al, (1983) also report that a tally of five studies using peer reports shows an average correlation .39, whereas seven studies using ratings made by the researchers, staff, or other experts show an average correlation of .52.