# AN EMPIRICAL ANALYSIS OF THE IMPACT OF PRIVATE SECTOR ON THE ECONOMIC GROWTH AND DEVELOPMENT OF NIGERIA

(1980 - 2010)

BY

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# EC/2009/767

# BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS, FACULTY OF MANAGEMENT AND SOCIAL SCIENCES, CARITAS UNIVERSITY,

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AUGUST, 2013.

### **TITLE PAGE**

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# **DEPARTMENT OF ECONOMICS**

# FACULTY OF MANAGEMENT AND SOCIAL SCIENCES.

# **CARITAS UNIVERSITY AMORJI-NIKE EMENE ENUGU**

AUGUST, 2013.

### APPROVAL PAGE

This report entitled PRIVATE SECTOR AS THE ENGINE FOR ECONOMIC GROWTH AND DEVELOPMENT IN NIGERIA, by ONWUANIBE TOCHUKWU BENJAMIN, EC/2009/767, meets the regulation governing the award of the degree of economics in Caritas University and in approval for its contribution to knowledge and literal presentation.

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## DEDICATION

I dedicate this research work to God Almighty for his all round favor in my life. Also, to my parents and siblings for their unquantifiable support towards the completion of this work.

# ACKNOWLEDGEMENT

I am most grateful to God for his blessings in my life. My profound gratitude goes to my parents. Thank you all and God continue to bless you all.

I cannot forget my siblings for their support and prayers during my stay in this school. May god continue to bless you all.

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How can I forget my good friends? Nnamdi, Miracle, Triumph, Dozie (CAHIER). You guys are wonderful.

ONWUANIBE TOCHUKWU BENJAMIN.

#### ABSTRACT

The study examines the private sector as the engine of economic growth and development in Nigeria. A model was specified and data were collected from the period of 1980-2010. The method used in this research work is the ordinary least square (OLS) regression model and variables which are: gross domestic product (GDP) as the dependent variable while foreign private investment (FPI), domestic private investment (DPI), total private savings (TPS), and total bank loans (TBL) are the independent variables and are all significant except total private savings that is insignificant. From the regression result, the following findings were made The estimate coefficients which are 0.8999687 {FPI} shows that a 1 percent increase in foreign private investment will cause 89.9 per cent increase in GDP, 0.0851059 (DPI) shows that a 1 percent increase in domestic private investment will cause an 8.5 per cent increase in GDP, 0.2444129 {TBL} shows that a 1 percent increase in total bank loans will cause 24 per cent increase in GDP. -0.0268498 {TPS} shows that a 1 percent increase in total private savings will cause 2.6 per cent decrease in GDP.. I recommend that there should be policies that will attract foreign investors; such policies could be the reduction of corporate tax rate. Incentives should be given to local investors to enable them compete with foreign investors world-wide. Policies also should be made against the transfer of capital and profit from Nigeria to foreign countries as it drains the income meant for national development. The government should also maintain political stability in the economy because unstable environment discourages investors.

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# **CHAPTER ONE**

### INTRODUCTION

### 1.1 Background of The Study

Privatization has become a major strategy adopted world over to improve the performance of public enterprises. It is a known fact that one feature of public enterprises all over the world but more importantly in developing countries of Africa especially Nigeria is inefficiency, bureaucracy of public enterprises and uncared attitude of most public servants or most people to public work and property. This leads to waste, slow growth and inordinate dependence on government support (in the form of annual subventions) even when the activity is apparently a profitable line.

As a way of improving the fortunes and performance of these enterprises through which profit orientation will be the motive of the enterprises, privatization is being canvassed such that government will divest itself of all its ownership interest and allow

private sector to buy over these companies. In Nigeria today, the private sector is increasingly being recognized as the motivating force that fosters economic progress.

In Nigeria, the oil boom of the1970s among other factors gave impetus to a public sector-led government strategy. Public sector dominance was also prevalent in order to give government an increasing measure of control over its own resources (obadan 2000), the dwindling revenue of government as a result of the economic crisis of the 1980s coupled with the dissatisfaction with the performance of the public compelled Nigeria to adopt the privatization and commercialization in 1988.

Today, in Nigeria, privatization of key government business is no longer a household talk but it has become a major issue in the mind of every meaningful Nigerian.

The participation of the State in enterprises in Nigeria dates back to the colonial era. The task of providing basic infrastructure such as railway, road, bridges, water, electricity and port facilities fell on the colonial government due to the absences of indigenous

companies with the required capital as well as the inability or unwillingness of foreign trading companies to embark on capital intensive project (Iheme, 1997). The involvement was expended and consolidated by the colonial welfare development plan (1946-1956) that was formulated when labor party came to power in the United Kingdom. This trend continued after independence such that by 1999, it was estimated that successive Nigerian government had invested up to N800 billion in public owned enterprises (Igbuzor, 2003 as citing Obasanjo, 1999). Throughout much of the twentieth century, there were three dominant strategies for infrastructure investment. In some countries, most notably those in the Eastern Bloc, State ownership of the means of production was promoted, (Western Bloc) promoted private ownership of while others production. A large number of countries also predicted what was termed a mixed economy, a combination of public and private ownership of the means of production. However, by the end of the twentieth century with the end of cold war between the eastern and western bloc, private ownership of the means of production gained ascendancy. Today, what is applicable is that the State should

recede from this role, and that private ownership of the means of production is the only viable approach to the efficient production of goods and services, as well as economic growth and development. Consequently, there is a strong move all over the world to privatize erstwhile public enterprises (Igbuzor, 2003). Thus, privatization could be looked upon as the reduction of public sector intervention in economic activity. It involves the divesture of government economic activities (Anyanwu, 1993). It occupies a unique position in a global economic liberation and provides an avenue for raising productivity, thus, enhancing overall economic growth and development (Salako, 1999). This is however, achieved through increased involvement of the private sector in productive economic activities through the sale of public enterprises to the private sector with the ultimate aim of infusing improved economic efficiency in the businesses. With privatization, the role of government in direct productive activities diminishes as the private sector takes over such responsibilities with profit motive as its major objective. In such a situation, the government is only expected to provide essential infrastructure and an enabling environment through

which private enterprises could flourish. Privatization is predicated on the assumptions of State inefficiency and absolute efficiency of the market (Salako, 1999). It would be recalled that several Nigerian public enterprises have on several occasions been under severe criticism by international media agents for their operational and pricing inefficiencies. Nigeria like many other developing economies witnessed increasing cost and poor performance of State-owned enterprises (SOEs), resulting in heavy financial losses. In it, there has been proliferation of SOEs in all facets of economic endeavours, as a means of fostering rapid economic growth and development (Eke, 2000).

Unfortunately, most of them were structurally ill-conceived, economically inefficient with accumulated huge financial losses and thus absorbing disproportionate share of domestic credit. They were also sustained through heavy budgetary allocations of the country (Jerome, 1996, as cited in Eke, 2000). For instance, the stateowned enterprises (SOEs) are adjudged to have contributed substantially to public sector deficit and have financed less than one fifth of their investments through Internally Generated

Resources (IGR) (Nair and Filippides, 1988). As some governments ran into severe fiscal problems such that loans became increasingly difficult to rise at home and abroad, they were forced to consider some radical methods of reviving the SOEs. Such reforms embarked upon by developing countries included privatization. Kikeri (1994) has noted that the high costs and poor performance of SOEs and the modest and fleeting results of reform efforts have turned many governments towards privatization.

#### **1.2 STATEMENT OF THE PROBLEM**

It is the inefficiency of government-run public enterprises today that calls for the privatization of these enterprises. However one may note that privatization may not likely be the only solution of getting government-run enterprises on the ideal path of efficiency, deregulation and market oriented economy. The study therefore believes that there should be some silent initiatives that if properly harnessed could be the shining light to lead the nation's ship to the desired harbor.

## **1.3 Research Questions**

- 1. Is privatization the engine of economic growth in Nigeria?
- 2. Is there any relationship between privatization and economic growth?

# 1.4 Objectives Of The Study

- 1. To determine the relationship between private sector spending and GDP.
- 2. To ascertain the relationship between public sector spending and GDP.
- 3. To find out whether there is any relationship between public and private sector spending and GDP.

# 1.5 Research Hypothesis

Privatization does not have impact on economic growth in Nigeria.

### 1.6 Significance Of The Study

- 1. To provide information on the privatization of the Nigerian privatization exercise.
- 2. To determine whether privatization has contributed positively or negatively to the growth and development of the Nigerian economy.
- 3. To educate students about the nature of the Nigerian private sector.

### 1.7 Scope Of The Study

The study covers the impact of the private sector from 1980-2010.

### **1.8 Definition Of Basic Concept**

**PRIVATISATION:** This is the process of transferring ownership interest and control in a government-owned enterprise to the private sector.

**FULL PRIVATISATION:** The government sells the enterprise in full to private individuals or groups.

**PARTIAL PRIVATISATION:** The government sells some of its shares or holdings to the private sector.

**PUBLIC SECTOR:** They are organizations that are owned and managed by the government.

**PRIVATE SECTOR:** This consists of private business ownership.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Theoretical Literature

A world wide era of privatization has been picking up momentum in recent decades, making it a fairly new trend in the area of economic policy. The modern idea of privatization as an economic policy was pursued for the first time by the federal republic of Germany in 1957, when the government eventually sold majority stake of Volkswagen to private investors. The next big move in privatization came in 1980s with Margaret Thatcher's privatization of Britain telecom and Chirac's privatization of large banks in France. Privatization spread to other continents as Japan communication Mexico privatized government and owned companies (megginson, Nash and randenborgh, 1996). Another major contribution to the world wide progress of privatization has been the fall of the communist regime in Eastern Europe and the former Soviet Union. In recent times, countries like china and Cuba, as well as many other developing countries have begun to

implement privatization in the hope of stimulating economic growth. Over the period of ten years, between 1984 and 1994, there has been a worldwide shift of \$468 billion in assets from public sector to the private sector (Poole, 1996).

#### 2.1.1 DEFINITION OF PRIVATE SECTOR/PRIVATISATION

Private sector (privately owned part of the economy) is the part of the free market economy that is made up of companies and organizations that are not owned and managed by the government. It is that part of a country's economy that is owned and managed by private individuals.(nwanneze,2001).

Privatization is the conversion of businesses from government ownership to private property. It can also involve the denationalizing of industries as well as allowing the private sector to provide what has been considered government services. (Anyawu, 1993).

#### 2.1.2 Phases Of Privatization

The first phase of privatization in Nigeria commenced in 1988 and lasted till 1993, in total, about 110 public enterprises were transferred to the private sector, the total sum realized by government from this is 1 billion shares bought over 800,000 new holders, from this, the government made a gain nearly 60% of government original in these enterprises.

The second phase of privatization of public enterprise in Nigeria commenced when the obasanjo administration came into power, the programme was one of the cardinal policies of the former president (olusegun obasanjo) regime. The second phase of privatization envisaged full and partial divesture of interest of nearly 100 public enterprises in which the federal government minority and majority interest. The public enterprises are scheduled in the public entries, privatization and commercialization.

Asaolu ,(2005) reviews that privatization is an umbrella term to describe a variety of policies which encourage competition and

emphasizes the role of market forces in place in place of stationary restrictions and monopoly powers.

Beesly and little-child, (1983) said that the concept of privatization is the formulation of a company's act and subsequent sale of at least 50% shares to the private share holders. To them, the most important idea is the improvement of an industry's performance through the efficient functioning of the market forces.

#### 2.1.3 Private Sector In Nigeria

The second national development plan (NDP) (1970) distinguished between two types of participants in the Nigerian private sector: incorporated businesses and households; these two are called the organized and un-organized private sector.

The organized private sector in Nigeria includes most activities in manufacturing, mining, construction, commerce, finance and the incorporated part of road transportation; these are usually coordinated under different organs such as the manufacturers

association of Nigeria (MAN), Nigeria employers' consultative association (NECA) etc.

The un-organized sub-sector comprises mostly of agriculture, housing, distribution (excluding departmental stores), road transportation, small scale industries, crafts, nonprofit organizations etc.

### **2.1.4 Objectives Of The Nigerian Privatization Programme**

The primary goal of the privatization programme of the federal government of Nigeria is to reduce the dominance of the public sector in the economy and allow the private sector to play its role properly as the lending engine growth. Over time through direct massive investment and participation, Nigeria developed a larger public sector.

As it may, 1999, the federal government investment in the public enterprise was in the region of U.S \$100 billion, inspite of these massive investments, however, public enterprise have woefully failed to perform the function and attain the objectives for which they were set-up. The gross failure of these enterprises to live up to expectation is partly responsible for the current moves towards economic liberalization competition and privatization. The philosophy behind privatization is to re-structure and rationalize the public sector not only to lessen the burden of unproductive investment in the sector of public enterprises which are better operated by the private sector. It is also expected that the privatization programme will provide the channel as a platform to attract foreign direct investment in an open, fair and transparent manner.

#### 2.1.5 Macroeconomic Comparisons

There is little macroeconomic evidence of the impact of privatization on the level and growth of income or on income distribution. This is because of the small number of transactions and the difficulty of distinguishing effects of privatization from those of economic reform. Although from 1988 to 1993 some 2,700 transactions were recorded (with proceeds of more than \$270 billion), two-thirds of the proceeds were realized in industrial

countries. Only a few developing countries did any significant privatization, and activity in Eastern Europe was concentrated in a few countries. The average nontransitional developing country had, by 1994, divested only 3 public enterprises (PEs) per year of the 100 or more that typically constitute the public enterprise sector. The share of PEs in GDP has not decreased significantly anywhere and has increased in some cases, the PE share of employment rose from the 1970s to the 1990s, and financial dependence of PEs on central government budgets actually intensified in developing countries as a group (and in all regions). Only the PE share in investment fell worldwide and significantly over the 1980s. It is difficult to expect to find an observable macroeconomic impact, and it is not surprising that, in this environment, nobody has tried an econometric test for ultimate impacts such as changes in levels and rates of growth of GDP.

#### 2.1.6 Privatization And Economic Growth In Nigeria

Many countries of the world have embarked on privatization programmes at different times. Chile introduced it in 1974. The United Kingdom implemented a rigorous privatization programmes during the regime of Margaret Thatcher in the 1980s (Iheme, 1997). The decision for Britain to embark on privatization programme was largely informed by the need to cut back on public spending rather than the need to promote efficiency and competition. Countries like Russia, Romania, and Czechoslovakia among others witnessed the implementation of privatization in the 1990s. Privatization in Nigeria was introduced by the privatization and commercialization Decree of 1988 as part of the structural Adjustment Programme (SAP) of the Babangida regime (1985-1993).

The vision of a "global market civilization" has been reinforced by the policies of the major institutions of global economic government named up to the mid 1990s. Underlying the SAP, has been a new-liberal development strategy referred to as the washing on consensus which prioritizes the opening up of national economics to global market forces and the requirement for limited government intervention in the management of the economy (Ayodele, 2002).

One of the main objectives of SAP was therefore to pursue deregulation and privatization leading to removal of subsidies reduction in the wage bills and the retrenchment of the public sector ostensible to trim the State down to size (Egwu, 1998). The privatization and commercialization decree of 1988 set up the Technical Committee on Privatization and Commercialization (TCPC) under the chairmanship of Dr. Hamza Zayyad. He was mandated to privatize three public enterprises and commercialize 34 others, in 1993, the TCPC concluded its assignment and submitted a final report privatizing 88 out of the three enterprises listed in the Decree. Based on the recommendation of the TCPC, the Federal Military Government promulgated the Bureau for public enterprises Act of 1993 which repealed the 1988 Act and set up the Bureau of public enterprises (BPE) to implement the privatization programme in Nigeria. In 1999, the Federal government enacted the public enterprises (Privatization and Commercialization) Act which the National Council privatization under created on the chairmanship of the Vice President Alhaji Atiku Abubakar (Igbuzor, 2003). The functions of the council were:

- i. To make policies on privatization and commercialization.
- ii. To determine the modalities of privatization and advising the government accordingly.
- iii. To determine the timing of privatization for particular enterprises.
- iv. To approve the prices for shares and appointment of privatization advisers.
- v. To ensure that commercialized public enterprises are managed in accordance with sound commercial principles and prudent financial practices, and
- vi. To interface with public enterprises, together with the supervising ministries, in order to ensure effective monitoring and safeguard of the managerial autonomy of the public enterprises.

The act also established the Bureau of public enterprises BPE as the secretariat of the national council on privatization.

#### The Function Of The Bureau Include:

- i. Implementing of the councils policy on privatization and commercialization;
- ii. Preparing public enterprises approved by the councils for privatization and commercialization;
- iii. Advising the council on further public enterprises that may be privatized or commercialized;
- iv. Ensuring the update of accounts of all commercialized enterprises for financial discipline;
- v. Advising the council on capital restructuring needs of the public enterprises to be privatized;
- vi. Making recommendations to the council in the appointment of consultants, advisers, investment bankers, issuing house, stockbrokers, solicitors, trustee, and other professionals required for the purpose of either privatization or commercialization;
- vii. Ensuring the success of the privatization and commercialization exercise through effective post transactional performance monitoring the evaluation, and

viii. Providing secretarial support to the council.

Underlying the move to privatize public assets appears to be a basic belief that government owned and managed enterprises are inherently less efficient than private enterprises. While there is a great deal of evidence to suggest that this is true, it does not appear to be a significant alternative push to increase the efficiency of government enterprises, except in those cases where the body politics has defined enterprises as a uniquely governmental function (Gauche, 2000). Thus, this definition is becoming increasingly narrow over time. Consequently, privatization of public assets appears to stem from a desire to bring market discipline to bear on enterprises that were once sheltered by government ownership. This desire may stem from increasing realization that international trade of those nations and people who participate fully in the international economy. However, a country or an enterprise cannot participate fully in the international economy without being fully competitive. Thus, a basic thrust of privatization appears to be the promotion of economic growth. It is the objective which will be thwarted to a great extent if the privatizing governments fail to link

up the privatized capital with those who will use the earnings from capital with those who will use earnings from that capital for consumption. If that capital goes primarily to those who reinvest rather than consume the income from the capital, total activity in the economy will be less than otherwise possible and economic growth will suffer as a result (Kelso and Hetter, 1982).

### 2.1.7 Privatization Implementation Problems

There are concerns in civil society circles that the economic environment of Nigeria as presently constituted, as well as the way the privatization programme has been implemented cannot lead to success. According to the World Bank (2003): most privatization success stories come from high income and middle income countries. Privatization is easier to launch and more likely to produce positive result when the company operates in a competitive market and when the country has a market-friendly policy environment and a good capacity to regulate. The poorer the country, the longer the odds against privatization producing its anticipated benefits, and the more difficult the process of preparing

the terrain for sale. From the above, four conditions must be met for the success of any privatization programme. First, the country should be either in the high or middle income bracket. The second condition is that the country should operate a competitive market. The third is that the country should be good policy environments, and finally, a good capacity to regulate it.

Any keen observer of Nigeria's economic environment will know that these conditions are completely absent. This is why apologist of privatization insists that any privatization programme should be a part and parcel of a comprehensive public sector reform package (Jerome, 1991). However, it has been argued that the Nigerian privatization exercise is not accompanied or preceded by an articulated and property phased public sector reform and it will therefore nor result in more efficient production of public goods, nor will it make any significant positive impact to fiscal balance (Amadi, 2003). It is instructive to note that the World Bank gives eight key lessons on the experience of privatization:

 Privatization works best when it is a part of large programme of reforms promoting efficiency;

- ii. Regulation is critical to the success of monopolies.
- iii. Countries can benefit from privatizing management without privatizing ownership of assets;
- iv. The sale of large enterprises requires considerable preparation;
- v. Transparency is critical for economic and political success.
- vi. Government must pay special attention to developing a social safety net; the formerly socialist economies should privatize in all possible ways that encourage competition, and they should experiment with all available methods that go beyond a case by case approach to privatization;
- vii. In changing the public-private mix in any type of economy, privatization will sometimes be less important than the emergence of new private business.

# 2.2 Empirical Literature

Although a number of empirical studies have been conducted in order to measure the financial effects of privatization on the newly privatized firms throughout the world, only a limited number of empirical studies have attempted to measure the effect of privatization on the economic growth in the developing countries. Perhaps the main reason for the lack of such studies arises out of the fact that privatization has been a fairly new phenomenon, particularly in developing countries. A recently published study (August 2003), conducted by Paul Cook and Yuichiro Uchida, provides an empirical analysis of the effects of privatization on economic growth in developing countries. Furthermore, Cook and gives Uchida's studv valuable insights into the possible methodological and ideological changes that should be considered when conducting a future study in this particular field9. The main difficulty with constructing an empirical study that measures the impact of privatization on economic growth is due to the fact that many factors and policies have influential roles in the rate of economic growth. In his book, Easterly identifies numerous factors

that can potentially influence growth and describes their interdependence on each other. Furthermore, data from each country is only available for a limited number of years. Cook and Uchida's study is based on the extreme-bounds analysis (EBA) framework, which is a form of cross-country growth regression analysis10. In order to obtain a coefficient of privatization, it is necessary to run the regression using every possible combination of Z variables. Once the process is complete, all the statistically significant coefficients of privatization are used to estimate the base coefficient of privatization as well as the maximum extreme minimum coefficient and coefficient. EBA extreme In the framework, if the sign of the maximum extreme Coefficient and the sign of the minimum extreme coefficient is the same, then the result is considered robust (Cook and Uchida, 2003).

A privatization variable in a study should reflect the magnitude of privatization in a given country, thus making the magnitude of privatization an important measurement. Cook and Uchida decided that computing the cumulative proceeds from the privatization during the period from 1988-1997 as a percentage of
the average GDP during that same period would be a good way to measure the magnitude of privatization. Therefore, their study is based on 63 developing countries that have the data required to compute the magnitude of privatization. Aware of the fact that privatization variable could possibly pick up the effects of other economic reforms, Cook and Uchida test and conclude that there is no correlation between privatization and government budget deficit nor is there a correlation between privatization and World Bank adjustment loans. As Cook and Uchida begin to specify the control variable used in their study, an obvious connection becomes apparent between Easterly's work and theirs. The task of selecting the right control variables is of the utmost importance since the study should control for the initial economic, political, and social conditions in each country. Such variables are the typical factors that affect economic growth, many of which are discussed in great detail by Easterly11. The empirical results depend heavily on the control variables used in the regression analysis, thus specifying them correctly is essential. Using the investment variable as an example, it is possible that investment does not necessarily affect

growth, as Easterly and others have suggested. Instead, it is very possible that the causality is reversed so that economic growth affects the amount of investment in a particular economy (Cook and Uchida, 2003) Contrary to theory and previous studies, Cook and Uchida's empirical analysis suggests that there is a robust negative privatization and correlation between economic growth in developing countries. Since the theory predicts a positive correlation between privatization and economic growth, something is possibly lacking from the model specifications. This can provide powerful insights in the methodology of future studies. Cook and Uchida's study largely eliminates the possibility that the privatization variable captures other economical changes. Perhaps, as theory implies, it is possible that some of the success of privatization as a policy that promotes economic growth lies in the fact that privatization leads to other structural changes in the economy. Furthermore, as Easterly points out, any policy over the past 50 years that isolates a single macroeconomic ideology has been a failure as a source of economic growth. Therefore, Cook and Uchida's empirical results reaffirm the idea that privatization as a

policy of economic growth should be analyzed in context with other economic policies. They suggest that a possible reason for a negative correlation between privatization and economic growth is due to the lack of competition in the private sector in the developing countries. Thus, more research should be done in the area of privatization and competition in order to make any kind of conclusive ideas.

The fact that proceeds from privatization are used as a way to measure the levels of privatization in each country might negatively impact the credibility of the empirical results. It is possible that developing countries with underdeveloped regulatory systems may have enhanced proceeds from privatization. Furthermore, proceeds from privatization could possibly be a completely inaccurate measure of the magnitude of privatization, since different methods (discussed in the previous section) of privatization result in different levels of proceeds. Additionally, Cook and Uchida's study does not control for the method of privatization that was used in each country, which could potentially play a large role on the empirical results. In fact, a World Bank analysis of the privatization in

Eastern Europe suggests that the means through which privatization is implemented has played a significant part in the potential success of privatization in Eastern Europe (World Bank, 2002). Finally, Cook and Uchida's empirical analysis supports Easterly's idea that no individual economic policy will be the solution to the quest for economic growth. Instead, more research should be done in order to analyze the effects of privatization, accompanied by other economic reforms, on the rate of economic growth.

Udoka and anyingang (2009) in using the ordinary least multiple regression statistical model to ascertain the effect of privatization on the economic growth of Nigeria from 1979-2007 concluded that there existed a significant relationship between GDP and private sector capital spending. The combination of the private and public capital significantly impacted on the GDP of a nation. It was also discovered from the study that privatization is not a comprehensive solution of the problems of poorly performing stateowned enterprises. The study again discovered that the standard procedures for privatization were not followed as in the case of the

aborted sale of the Nigerian airways to air wing of the U.K , which had neither a solid capital base nor the required experience to merit taking over national carrier. After many years of privatization exercise in Nigeria, there has not been any comprehensive assessment of the post privatization performance of the affected enterprises. They suggested that foreign investors should be encouraged to participate in the investment opportunities made available by the privatization programme.

Ekewunwa using the ordinary least square regression model and variables which GDP is the dependent variable, and data collected from 1980-2007 to test for the impact of privation on the economic growth of Nigeria concluded that the private sector is not the engine of economic growth in Nigeria, government need to help them to increase their output and savings. The private sector has not succeeded in distinguishing itself as the prime mover of economic growth.

Kehinde (2009) using both primary and secondary data with two hypothesis formulated and analyzed using Pearson moment correlation coefficient to test for the impacts of privatization on the economic growth of Nigeria concluded that privatization if faithfully implemented has the potential of making the private sector the engine of economic growth, privatization is no doubt a fruitful economic policy if sincerely implemented. it would open new opportunities , increase private sector participation in the economy, expand capital market, equity funding inflow of investments, job creation and engender continued deregulation, provide modern technology infrastructure, new and improved efficiency, privatization is an economic policy of much relevance and importance worldwide and it has the capacity of promoting efficiency. Of much importance is that privatization would promote competition among the major actors in the system.

Afeikhena (2010) researched on the operating performance of privatized firms in both developed and developing economies; his study appraised the post-privatization performance of some privatized enterprises in Nigeria. The specific indicators examined are: profitability, productive efficiency, employment, capital investment, output, prices, and taxes. The study measured the change in any given indicator of performance by comparing its

average value five years before and five years after privatization. Data envelopment analysis (DEA) was also deployed to assess changes in the level of technical efficiency in the selected enterprises. The result, albeit mixed, showed significant increase in these indicators. Privatization is also associated with increase in technical efficiency in the affected enterprises. Reduction of politically motivated resource allocation has un-questionably been the principal benefit of privatization in Nigeria.

The evidence shows that, overall employment losses have been modest In United bank of Africa and Unipetrol while Ashaka in fact recorded large increases in employment after privatization. Also, it should be borne in mind that no assessment is made of whether the improvement in efficiency has been translated into improvement in allocative efficiency, and ultimately into improved consumer welfare. Also, privatization brings with it, private owners who place greater emphasis on profit goals and also carryout new investments that lead to increased output and employment. According to him, privatization has a significant relationship with economic growth in Nigeria. Haruna (2011) analyzed the relationship private sector and credit and economic growth in Nigeria, he used time series data for the period of thirty-seven (37) years (1974-2010) in analyzing the data, the paper used Autoregressive Distribution Lag (ARDL) bound F-test for co-integration. Based on his findings, he concluded that a long-run relationship exist between private sector credit and economic growth. Secondly, there is no casualty steaming from the variable studied; real gross domestic product (RGDP), this testify to the Schumpeterian independent hypothesis which argued that economists have overstressed the role of finance in achieving economic growth and suggested that finance has no first-order effect on economic growth

## **CHAPTER THREE**

#### 3.0 Methodology

Here, the multiple regressions will be used to analyze the impact of private sector on economic growth. The F-test will be used to determine the overall adequacy of the regression line.

## 3.1 Model Specification

To establish the relationship between private sector and economic growth in Nigeria, the following model is adopted from the work of Shabri and Majid (2008). The assumed mathematical form of the model is linear where;

GDP=F (FPI, DPI, TPS, TBL).....(1) where

RGDP= Real gross domestic product

FPI=Foreign private investment

DPI=Domestic private investment

TPS=Total private savings

TBL=Total bank loans.

Putting the model in a linear econometric model,

GDP=b0+b1FPI+b2DPI+b3TPS+b4TBL+e.....(2)

Where b0>0 (intercept term)

B1, -b, + are coefficients of the parameter to be estimated and e is the stochastic term or error term.

#### 3.2 Method Of Evaluation

1. Economic apriori criterion: these are determined by the principle of economic theory and referred to the signs and magnitude of the parameters of economic relationships. In the model of this research work, foreign private investment, domestic private investment, total private savings are not related to private sector while total bank loan has a negative relationship. 2. Statistical criterion (First order tests): these are determined by the statistical theory and aimed at the evaluation of the statistical reliability of the parameter estimates. The coefficient of the multiple determination  $(R^2)$  measures the proportion of the variation in Y(GDP), which is explained by the multiple regression. The R<sup>2</sup> is used to show the percentage of the total variation of the dependent variable being explained by the changes in the explanatory variable. The standard error used to measure the dispersion of the estimates from the regression line. If the standard error is smaller than half the numerical value of the parameter estimates, that is, if S (bi) < ( $b_{1/2}$ ), we conclude that this estimate is statistically significant. This means that we reject the null hypothesis (we reject the hypothesis that the true population parameter Bi is different from zero).if on the other hand, the standard error of the parameter estimate is greater than half of its numerical value, that is if S (bi) > ( $b^{1/2}$ ), we conclude that the least square estimate is not the hypothesis that the true parameter Bi= i.

 Econometric criterion (second order tests): the test will be performed on the regression result in order to evaluate it according to the classical assumption of ordinary least square (OLS).

### 3.3 Decisions Rule For Durbin-Watson

- If d\* dl, we reject the null hypothesis of no auto correlation and accept that there is a positive auto correlation of the first order.
- 2. If d\* > (4-dl), we reject the null hypothesis of no auto correlation and accept that there is a negative auto correlation of the first order.
- If du < d\*(4-du), we accept the null hypothesis of no auto correlation.
- 4. If  $di < d^*$  or if (4-du)  $< d^* <$  (4-di), that test is inconclusive.

#### NOTE

- 1. Reject the null hypothesis (H0, P=0). If d\*< du or d\* < (4-du).
- 2. Accept the null hypothesis if  $du < d^*$  (4-du).

#### 3.4 The F-Test

To determine the overall adequacy of the regression line, the Ftest is undertaken. The regression equation is adequate in the model if the calculated F-statistics is compared with the F-table, which is found from the F-table with k-1 and N-k degrees of freedom (D.F).

#### **Decision Rule For F-Statistics**

If calculated F\* is greater than F table, the null hypothesis is rejected while the alternative hypothesis is accepted.

#### 3.5 Data Required And Source

Data used in this research work are secondary data collected from the central bank of Nigeria (CNB) statistical bulletin

# **CHAPTER FOUR**

## **PRESENTATION AND ANALYSIS OF RESULT**

## 4.1 Presentation and Interpretation of Result:

# Dependent variable: GROSS DOMESTIC PRODUCT

## Method: Ordinary Least Square.

## **Period of study: 1980 – 2010**

## **Included Observations: 31**

Variable	Coefficient	Standard	T-	T-prob.	{95% Confidence	Interval}
		error	statistics			
Constant	2.515927	0.6682359	3.77	0.001	1.142348	3.889505
FPI	0.8999687	0.1958894	4.59	0.000	0.4973122	1.302625

DPI	0.0851059	0.039799	2.14	0.042	0.0032979	0.166914	
TBL	0.2444129	0.0914786	2.67	0.013	0.056376	0.4324498	
TPS	-0.0268498	0.1701453	-0.16	0.876	-0.3765886		
					0.3228889		
$R^2 = 0.9771$ F{4, 26} = 277.10{0.0000} DW = 0.9814065 Root MSE = 0.36901 for 5							
variables and 31 observations							

## 4.2 Economic Apriori Criteria

The test is aimed at determining whether the signs and sizes of the results are in line with what economic theory postulates. Thus, economic theory tells us that the coefficients are positively related to the dependent variable, if an increase in any of the explanatory variables leads to an increase in the dependent variable. Therefore, the variable under consideration and their parameter exhibition of a priori signs have been summarized in the table below.

This table will be guarded by these criteria

When  $\beta > 0 = \text{conform}$ .

When  $\beta < 0$  = not conform.

Variables	Expected	Estimate	Remark
	signs		
FPI	+	β > 0	Conforms
DPI	+	β > 0	Conforms
TBL	+	β > 0	Conforms
TPS	+	β < 0	Not conform

From the above table, it is observed that all except TPS actually conforms to the economic theories.

A positive relationship which exists between FPI, DPI, TBL and GROSS DOMESTIC PRODUCT indicates that an increase in FPI, DPI and TBL will result in a positive change in the Growth Rate of GROSS DOMESTIC PRODUCT. This conforms to the priori criteria because an increased or high FPI, DPI and TBL over the years will increase growth in the economy.

#### 4.3 Statistical Criteria {First Order Test}

## 4.3.1. Coefficient of Multiple Determinants $\{R^2\}$ :

The  $R^2$  {R-Squared} which measures the overall goodness of fit of the entire regression, shows the value as 0.9771 = 97.71%approximately 98%. This indicates that the independent variables accounts for about 98% of the variation in the dependent variable.

#### 4.3.2. The Student's T-test:

The test is carried out, to check for the individual significance of the variables. Statistically, the t-statistics of the variables under consideration is interpreted based on the following statement of hypothesis.

H<sub>0</sub>: The individual parameters are not significant.

H<sub>1</sub>: The individual parameters are significant.

Variables {t-value}	t-tab	Remark

## **Decision Rule:**

If t-calculated > t-tabulated, we reject the null hypothesis  $\{H_0\}$ and accept the alternative hypothesis  $\{H_1\}$ , and if otherwise, we select the null hypothesis  $\{H_0\}$  and reject the alternative hypothesis  $\{H_1\}$ .

Level of significance =  $\alpha$  at 5% =

= 0.025

Degree of freedom: n-k

Where n: sample size.

K: Number of parameter.

The t-test is summarized in the table below:

FPI {4.59}	± 2.056	Significant
DPI {2.14}	± 2.056	Significant
TBL{2.67}	± 2.056	Significant
TPS {-0.16}	± 2.056	Insignificant

The t-statistics is used to test for individual significance of the estimated parameters { $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$ }.

From the table above, we can deduce that the intercept {3.77}, FPI {4.59}, DPI {2.14} and TBL {2.67} are greater than 2.056, which represents the t-tabulated implying that FPI, DPI and TBL are statistically significant.

On the other hand, the TPS  $\{-0.16\}$  is less than the t-tabulated  $\{\pm 2.056\}$  signifying that TPS is statistically insignificant.

The value of the intercept is 2.515927; it shows that the Nigerian economy will experience a 2.515927 increase when all other variables are held constant.

The estimate coefficients which are 0.8999687 {FPI} shows that a unit change in FOREIGN PRIVATE INVESTMENT will cause a 0.8999687 increase in GDP, 0.0851059 {DPI} shows that a unit change in DOMESTIC PRIVATE INVESTMENT will cause a 0.0851059 increase in GDP, 0.2444129 {TBL} shows that a unit change in TOTAL BANK LOANS will cause a 0.2444129 increase in GDP. -0.0268498 {TPS} shows that a unit changes in TOTAL PRIVATE SAVINGS will cause a 0.0268498 decrease in GDP.

#### 4.3.3. F-Statistics:

The F-statistics is used to test for simultaneous significance of all the estimated parameters.

The hypothesis is stated;

H<sub>0</sub>:  $\beta_1 = \beta_2 = \beta_3 = \beta_4$ 

H<sub>1</sub>:  $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4$ 

Level of significance:  $\alpha$  at 5%

Degree of freedom:  $V_1 = k-1$   $V_2 = N-K d/f$ 

#### **Decision Rule:**

If the f-calculated is greater than the f-tabulated  $\{f-cal > f-tab\}$ reject the null hypothesis  $\{H_0\}$  that the overall estimate is not significant and conclude that the overall estimate is statistically significant.

From the result, f-calculated  $\{277.10\}$  is greater that the ftabulated  $\{2.69\}$ , that is, f-cal > f-tab. Hence, we reject the null hypothesis  $\{H_0\}$  that the overall estimate has a good fit which implies that our independent variables are simultaneously significant.

#### 4.4 Econometrics Criteria

#### **4.4.1. Test for Autocorrelation:**

One of the underlying assumptions of the ordinary least regression is that the succession values of the random variables are temporarily independent. In the context of the series analysis, this means that an error {Ut} is not correlated with one or more of previous errors {U<sub>t-1</sub>}. The problem is usually dictated with Durbin-Watson {DW} statistics.

The durbin-watson's test compares the empirical d\* and du in d-u tables to their transforms  $\{4-d_L\}$  and  $\{4-d_U\}$ .

## **Decision Rule:**

- If d\* < D<sub>L</sub>, then we reject the null hypothesis of no correlation and accept that there is positive autocorrelation of first order.
- If  $d^* > \{4-d_L\}$ , we reject the null hypothesis and accept that there is negative autocorrelation of the first order.
- If  $d_U < d^* < \{4-d_U\}$ , we accept the null hypothesis of no autocorrelation.
- If  $d_L < d^* < d_U$  or if  $\{4-d_U\} < \{4-d_L\}$ , that test is inconclusive.

Where:  $d_L$  = Lower limit

 $D_U$  = Upper limit

D\* = Durbin Watson.

From our regression result, we have;

 $D^* = 0.9814065$ 

 $D_L = 1.160$ 

 $D_U = 1.735$  $4 - d_L = 2.84$  $4 - d_U = 2.265$ 

## **Conclusion:**

Since If d\*  $\{0.9814065\} < D_L \{1.160\}$ , then we reject the null hypothesis of no correlation and accept that there is positive autocorrelation of first order.

#### 4.4.2. Normality Test for Residual:

The Jarque-Bera test for normality is an asymptotic, or largesample, test. It is also based on the ordinary least square residuals. This test first computes the skewness and kurtosis measures of the ordinary least square residuals and uses the chisquare distribution {Gujarati, 2004}.

The hypothesis is:

 $H_0$  :  $X_1 = 0$  normally distributed.

 $H_1$  :  $X_1 \neq 0$  not normally distributed.

At 5% significance level with 2 degree of freedom.

JB = + = 4.44

While critical JB >  $\{X_{2},df\}$  = 5.99147

## **Conclusion:**

Since 4.44 < 5.99147 at 5% level of significance, we accept the null hypothesis and conclude that the error term follow a normal distribution.

## 4.4.3. Test for Heteroscedasticity:

Heteroscedasticity has never been a reason to throw out an otherwise good model, but it should not be ignored either {Mankiw, 1990}.

This test is carried out using White's general heteroscedasticity test {with cross terms}. The test asymptotically follows a chi-square distribution with degree of freedom equal to the number of regressors {excluding the constant term}. The auxiliary model can be stated thus:

$$\begin{split} \text{Ut} &= \beta_0 + \beta_1 \text{FPI} + \beta_2 \text{DPI} + \beta_3 \text{TBL} + \beta_4 \text{TPS} + \beta_5 \text{FPI}^2 + \beta_6 \text{DPI}^2 \\ + \beta_7 \text{TBL}^2 + \beta_8 \text{TPS}^2 + \text{Vi.} \end{split}$$

Where Vi = pure noise error.

This model is run and an auxiliary  $R^2$  from it is obtained.

The hypothesis to the test is stated thus;

H<sub>0</sub>: 
$$\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = \beta_8 = 0$$
 {Homoscedasticity}

H<sub>1</sub>:  $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6 \neq \beta_7 \neq \beta_8 = 0$  {Heteroscedasticity}.

Note: the sample size {n} multiplies by the R<sup>2</sup> obtained from the auxiliary regression asymptotically follows the chi-square distribution with degree of freedom equal to the number of regressors {excluding constant term} in the auxiliary regression.

#### **Decision Rule:**

Reject the null hypothesis if  $X_{cal}^2 > X^2$  at 5% level of significance. If otherwise, accept the null hypothesis. From the obtained results,  $X_{cal}^2 = 19.343 < X_{tab}^2$  @ 0.05 significance level {6} = 23.7 we therefore reject the alternative hypothesis of heteroscedasticity showing that the error terms have a constant variance and accept the null hypothesis showing that the error terms does not have a constant variance.

#### 4.4.4 Test for Multicollinearity:

The term Multicollinearity is due to Ragnar Frisch. Originally it meant the existence of a "perfect" or exact, linear relationship among some or all explanatory variables of a regression model. The tests were carried out using correlation matrix. According to Barry and Feldman {1985} criteria; "Multicollinearity is not a problem if no correlation exceeds 0.80".

	TPS	TBL	FPI	DPI	REMARK
TPS	1.000				-

TBL	0.9561	1.000			М
FPI	0.9829	0.9552	1.000		M,M
DPI	-0.5694	-	-	1.000	Nm, Nm, Nm
		0.6235	0.5817		

Where M = Presence of multicollinearity

Nm = No multicollinearity.

From the above table, the pair-wise TBL and TPS (0.9561), FPI and TPS (0.9829), and FPI and TBL (0.9552), have values in excess of 0.8. Therefore, we conclude that multicollinearity we can conclude that multicollinearity exist between these variables using pair wise.

## 4.5 Hypothesis Test

## **Hypothesis:**

Privatization does not have impact on economic growth in Nigeria.

**Conclusion:** From the regression analysis gotten, it revealed that foreign private investment, domestic private investment and total bank loans all have a significant impact on the gross domestic product, with the exception of total private savings which was seen to be insignificant. Therefore, we conclude that privatization of public enterprises can bring about a positive impact in promoting economic growth and development in Nigeria, thus, rejecting the null hypothesis.

Also, since all the variables except total private savings, have a positive impact on the gross domestic product in Nigeria, therefore, we reject the null hypothesis and conclude that privatization is a major roadmap to the economic growth and development in Nigeria.

#### **CHAPTER FIVE**

#### **5.1 SUMMARY**

This study on the effect of privatization on economic growth and of development of Nigeria employed secondary data which was analyzed and tested using ordinary least square multiple regression technique. Based on the regression result, it was discovered that there existed a significant relationship between the private sector and gross domestic product (GDP).

The main purpose of this study is to determine or assess the private sector as the engine of economic growth and development in Nigeria.

Privatization has been identified as the key part of economic policy change needed to propel economic growth and development in Nigeria. Several developing and transition economies have embarked on extensive privatization programmes fostering economic growth and development.

The study examined private sector as engine of economic growth and development in Nigeria over the period of 1980-2010,

the findings show that a positive relationship exist between foreign private investment, domestic private investment, total bank loans and the gross domestic product which indicates that an increase in foreign private investment, domestic private investment, and total bank loans will result in a positive change in the growth rate of gross domestic product.

Thus, the findings include;

- 1. The value of the intercept is 2.515927; it shows that the Nigerian economy will experience a 2.515927 increase when all other variables are held constant.
- 2. The estimate coefficients which are 0.8999687 {FPI} shows that units change in FOREIGN PRIVATE INVESTMENT will cause a 0.8999687 increase in GDP,
- 3. 0.0851059 {DPI} shows that a unit changes in DOMESTIC PRIVATE INVESTMENT will cause a 0.0851059 increase in GDP.
- 4. 0.2444129 {TBL} shows that a unit changes in TOTAL BANK LOANS will cause a 0.2444129 increase in GDP.

# 5. -0.0268498 {TPS} shows that a unit changes in TOTAL PRIVATE SAVINGS will cause a 0.0268498 decrease in GDP.

Foreign private investment (FPI) can be in two forms ;( foreign direct investments and port-folio investment).the foreign private sector can come in to the national economy through any of the above. An increase in foreign private investment will lead to increase in the investment rate in the economy which will lead to increase in the GDP of the nation.

Domestic private investment also increases the output of the nation. Unfortunately, Nigeria lacks the manpower and capital to affect the increase in GDP through domestic private investment. An increase in domestic private investment will lead to increase in the national GDP.

Bank loan is another way of increasing output. If loans are made available at low interest rates to investors, it will result to increased investment and employment which will increase output and thus gross domestic increased p product.

Private savings is another strong pillar to the achievement of economic growth; increased private savings will increase capital formation and thus lead to increase in investment rate. Unfortunately, private savings is very low in Nigeria instead we experience transfer of profit to foreign countries as a result of foreign direct investment and port-folio investment.

## 5.2 Policy Recommendation

A developing nation like Nigeria is characterized with numerous weaknesses and instabilities; there is need for some key policy recommendations:

 Government budget should always favor domestic industries. Examples of such policies include: increase in import tariff, reduction of tax for local industries, subsidizing the input of local industries, providing market for local industrial output, etc.

- 2. Banks should give loans to domestic investors for them to improve and increase their output. The loans should be at low interest rates.
- 3. Government should bring up policies that will attract foreign investors like reduction of corporate tax.
- 4. The government should make the economy conducive for investments and investors, political instability should be avoided, political and religious crisis should be totally eradicated in order to make the economy conducive for investors.

## 5.3 Conclusion

Privatization is the force needed to transform the Nigerian economy, so it is imperative for the Nigerian government to make all machineries available to the private sector in order to achieve and maintain rapid and increasing economic growth and development in Nigeria.

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 Prob > F
 =
 0.0000 

 R-squared
 =
 0.9771 
Residual | 3.5403574 26 .136167592 Adj R-squared = 0.9736 Total | 154.466508 30 5.14888361 Root MSE = .36901 \_\_\_\_\_ lgdp | Coef. Std. Err. t P>|t| [95% Conf. Interval] lfpi |.8999687.19588944.590.000.4973122ldpi |.0851059.0397992.140.042.0032979 1.302625 .166914 ltbl | .2444129 .0914786 2.67 0.013 .056376 .4324498 ltps | -.0268498 .1701453 -0.16 0.876 -.3765886 .3228889 \_cons | 2.515927 .6682359 3.77 0.001 1.142348 3.889505 \_\_\_\_\_ . estat dwatson time variable not set, use -tsset varname ...r(111); . tset year, yearly time variable: year, 1980 to 2010 delta: 1 year . estat dwatson Durbin-Watson d-statistic( 5, 31) = .9814065 . . estat imtest, white
White's test for Ho: homoskedasticity against Ha: unrestricted heteroskedasticity

chi2(14) = 21.87 Prob > chi2 = 0.0814

Cameron & Trivedi's decomposition of IM-test

Source	1	chi2	df	p
Heteroskedasticity Skewness Kurtosis	   	21.87 0.98 3.58	14 4 1	0.0814 0.9122 0.0585
Total	-+-   	26.43	19	0.1187

. . predict error, res

. . sktest error

Skewness/Kurtosis tests for Normality						
Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	 adj chi2(2)	joint Prob>chi2	
error	31	0.8644	0.0379	4.44	0.1087	
. corr ltps (obs=31)	ltbl lfpi	ldpi				
ا +	ltps	ltbl	lfpi ldpi			

ltps	1.0000			
ltbl	0.9561	1.0000		
lfpi	0.9829	0.9552	1.0000	
ldpi	-0.5694	-0.6235	-0.5817	1.0000

YEAR	TPS	TBL	FPI	DPI	gdp	
1980	5769.9	6349.1	524.9	1143	49632.32	
1981	6562.6	8582.9	540.1	1159.4	47619.66	
1982	7514.4	10275.3	659.8	9734	49069.28	
1983	9443.9	11093.9	685.5	7479	53107.38	
1984	10988.1	11503.6	750.9	4258	59622.53	
1985	12521.8	12170.2	748.5	5126	67908.55	
1986	13934.1	15701.6	1029.3	7734	69146.99	
1987	18676.3	17531.9	1233.6	9665	105222.8	
1988	23249	19561.2	1366.7	9392	139085.3	
1989	23809.3	22008	1561.9	18424	216797.5	
1990	29651.2	26000.1	1888.5	31137	267550	
1991	37738.2	31306.2	2982.3	35620	312139.7	
1992	55116.8	42736.8	3107.4	58940	532613.8	
1993	85027.9	65665.3	3848.1	81398	683869.8	
1994	108460.5	661271.6	5518.8	85314	899863.2	
1995	108490.3	114883.9	7651.3	80114.83	1933212	
1996	134503.2	169437.1	8226.2	86172.49	2702719	
1997	177648.7	385550.5	8518.2	7611.6	2801973	
1998	200065.1	272895.5	17171.8	193.5	2708431	
1999	277667.5	1265984	17942.7	178.06	3194015	

2000	385190.9	1795768	18350.4	180.02	4582127
2001	488045.4	2796112	19089.4	191.37	4725086
2002	592094	3606229	21818.9	392.93	6912381
2003	633739.7	4339443	23059.7	408.42	8487032
2004	797517.2	5688669	80545.4	413.24	11411067
2005	13169584	7468655	84520.9	418.57	14572239
2006	2576431	2524298	90881.8	420.02	18564595
2007	2693584	4813489	110875.8	411.23	20657318
2008	4118173	77994400	110969.1	413.44	24296329
2009	5763511	8912143	210077.7	422.47	24794239
2010	5954261	7706431	270184.6	430.5	33984754