THE IMPACT OF MINIMUM WAGE FLUCTUATION ON GROWTH OF NIGERIAN ECONOMY

BY

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CARITAS UNIVERSITY, AMORJI NIKE EMENE, ENUGU

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TITLE PAGE

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A RESEARCH PAPER SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARDS OF DEGREE OF BACHELOR OF SCIENCE (B.SC) IN ECONOMICS

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APPROVAL PAGE

This research work is on the impact of minimum wage fluctuation on the growth of the Nigerian economy. A Project submitted in Partial Fulfillment of the Requirements for the award of Degree of Bachelor of Science at Caritas University, Amorji Nike Emene - Enugu.

This project has been approved for the Department of Economics, Caritas University, Amorji-Nike Emene Enugu for the award of Degree in Economics.

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DEDICATION

This work is dedicated to Almighty God and most especially to my family and well wishers.

ACKNOWLEDGEMENT

I thank God who made it possible for me to be alive and pass through all the rigorous processes and procedures one encounters in the course of being a graduate.

My profound appreciation goes to my supervisor Mr. R.O Ojike, my Head of Department Barr. P.C. Onwudinjo and to all other lecturers in the Department of Economics, Caritas University, Amorji-Nike Enene Enugu.

I acknowledge with deep sense of respect to my family members, Mr. & Mrs. Ukonu, Miss. Chika Nwachukwu, Mr. Christopher Nwachukwu and other family members, who in one way or the other contributed both morally and financially throughout my stay in the university.

My gratitude also goes to my mummy Mrs. Janet Ego Ukonu for her support both financially and otherwise throughout my course of study.

ABSTRACT

This research work investigates the impact of minimum wage fluctuation on growth of Nigeria economy. Determinants of labour market in Nigeria arising from the economic transformation in recent years, and how public policy affects in particular labour market outcomes. The result has shown that increase in minimum wage increase by l unit (1 million), increase real gross domestic product by 0.038million. Similarly, an increase composite consumer price index in by 1 unit (1 million) reduced RGDP by -55.063 (million) Increase in per capital income by I unit (1 million) increase RGDP by 4788.060million. Also increase in labour forces by 1 unit (1 million) reduced RGDP by 0.005million while increase in inflation rate by 1 unit (1 million) reduced RGDP by 0.035. This is in conformity with the theoretical expectation, since it believes that increase in minimum wages and per capital income supposed to increase the real gross domestic product of the country. And that, per capital income is the most significant. This would propel the economy to higher levels of productivity. There is need for government to create enabling environment which would encourage heavy investment in infrastructural foundation that can enhance labour productivity and induce growth.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Income policy is usually used as a principal component of welfare boosting and poverty reduction macroeconomic policy framework in Nigeria. Minimum wage (hereafter MW) legislation is a major income policy readily employed in this regard. Although MW policy has both negative and positive effects on the overall economy, policy makers, especially politicians, have used it more often for political purposes than for socio-economic reasons. MW legislations in the country have been preceded by high inflation rates that erode purchasing power and bring reduction in welfare (Adams, 1987). Consequently, the need for MW legislation, which normally leads to a rise in nominal wage, is justified as a means of adjusting wages and salaries to match with the rise in costs of living.

It is, however, notable that wage increase brought about by MW is usually counter-productive. Apart from leading to a rise in general price level, wage increases, are always followed by

threat of reduction in government workforce, and in some cases, such threats have resulted into massive laid-off in the civil service (Olaleye, 1974; Owoye, 1994). Also, wage increases in Nigeria do not match up with the rate of increase in prices. As a result, there are always agitations from the labour unions for persistent wages and salaries increase. This regular call for rise in wages is at times based on the wide gap between public sector's and private sector's wages. The gap between public sector's and private sector's wages has often been given as one reason for the inefficiency and corruption in the public sector. It is argued that public sector workers deserve adequate compensation commensurate with their labour, in other to bring about efficiency (Obasanjo, 1999).

In view of the above, many stakeholders, particularly the labour union organisations, have severally called for wage indexation. However, given the problem with wage indexation, government has found a convenient means of raising wages by setting up Wage and Salary Commissions (WSCs) over the years. Although WSCs are meant to provide a wide-raging

solution to civil service problems, increment in wages and salaries is normally embedded in the recommendations of such commissions.

Inspite of the differing effects of MW legislation, its macroeconomic impact has found little interest in empirical study in Nigeria. Although there are sample studies that have tried to examine the impact of MW in an economy across different parts of the world, such studies have often employed a partial analysis, with focus on specific economic effects of MW in the economy. As pointed out by Adams (1987), the impact of MW could only be adequate captured within a macroeconomic model framework. This study, therefore, analyses macroeconomic effects of MW using a computable general equilibrium (CGE) model. The static CGE model developed in the paper allows for an analysis of the impact of MW across several sectors and variables within an economy. In particular, the study examines the impact of MW policy on household income, consumption, general price level, productivity (output), employment and government balances.

1.2 STATEMENT OF THE PROBLEM

The recent warning strike embarked upon by the organised Labour to demand increase in wages has ignited widespread debate on the place of the Nigerian worker in the economic scale of the country. 'Though organised labour eventually called off its three-day warning strike, many have continued to question the much-taunted democracy dividends. Emeka (2011) in this report takes an overview of the demand of the workers for N18,000 minimum wage in comparison with what political office-holders earn and its attendant effect on the economy.

According to observers, the place of the common man in Nigeria's governance strata has remained a question mark on successive administrations. While workers in every facet of the economy labour night and day for paltry sum to survive the prevalent harsh economic conditions in the country, the political class is perceived to squander the national resources without care. As if to give vent to this school of thought, the joint government-Labour-Employer negotiating team chaired by retired Chief Justice of Nigeria (CJN), Alfa Belgore, set up

by government had drafted a new minimum wage bill. The bill reflected the agreement reached between government and Labour as agreed by both parties, but government feigned ignorance of such agreement.

The committee had, while presenting its report to the Secretary of Government of the Federation (SGF), Ahmed Yayale, in Abuja noted that the N 18,000 minimum wage would not lead to inflation as being canvassed in some quarters.

"The Tripartite Committee on National Minimum Wage has recommended a national minimum wage of N18,000 per month for all establishments in the public and private sectors employing 50 workers and above," Belgore stated. "The committee met severally and consulted widely. It further took cognisance of the need to ensure that the outcome of the exercise must be growth-propelled in terms of GDP growth rate. "It also considered its capability of promoting rapid socio-economic transformation of the country, which will not lead to inflation spiral. The objective is aimed at alleviating

poverty in the country as well as maintaining macroeconomic stability." Belgore (2010) also suggested that to make the recommendations effective, the extent National Minimum Wage Act 1981 and its subsequent amendments of 1990 and 2000 should, be repealed with a new wage act. Leadership of the organised Labour had hinged their warning strike on the fact that government refused to heed agreements reached with it after widespread consultation. General Secretary of the Democratic Socialist Movement (DSM), Segun Sango, had noted, irrespective of the fact that the National Assembly had expressed its willingness to give the bill accelerated passage that government failed to submit to the legislators. Even some analysts have thrown their weight behind the Belgore committee, describing demand for wage increase by Labour as justified.

There is the need to adopt a systematic approach regarding such matters. In most progressive countries of the world, the wage increase index is linked to the rate of inflation," Chizea (2010) advised. "The thinking is that the government must be

proactive in catering for the welfare of workers. If salaries lag way behind increases in the rate of inflation, then there will be erosion in the quality of life of the generality of the workers. Therefore periodic wage increases is very much part of an effective salary administration."

Chief executive officer, Global Analysis Derivatives Limited, Tope Fasua, while acknowledging that wage increase does not hold eternal emancipation for workers anywhere in the world, noted that it is important for government to pay living wages. "There is no way wage increases can lead to the eternal emancipation of workers anywhere in the world. The effect will at best be a temporary reprieve until prices catch up with the new wage levels," Fasua (2011).

"That said, it is important to note that the Nigerian government and companies need to pay living wages to their workers. I think that is what Nigerian workers are demanding. It is important to note that the world over, at best only 10 percent of the population of any country can be said to really be financially emancipated.

"The situation is worse in developed countries where people merely live from one salary to another, while worrying about the huge overhang of debt that they have been pressured to acquire as a result of the wrong economic paradigm of capitalism which their countries believed in." But there are others who argue that wage increase may have adverse effect on the economy. Therefore, the research will focus on impact of minimum wage fluctuation on growth of Nigeria economy.

1.3 OBJECTIVE OF THE STUDY

The broad objective of this study is to evaluate the impact of minimum wage fluctuation on growth of Nigeria economy .The specific objectives of the study include to:

i) To evaluate the effect of minimum wage fluctuation on economic growth in Nigeria

ii) To determine their adequacy minimum wage in the light of the current economic realities and cost of living index as it affects the economic growth of Nigeria.

1.4 JUSTIFICATION FOR STUDY

At the intellectual levels the study examines some alternatives or contending paradigms on minimum wage fluctuation in

particular, econometrical and empirical underpinning and resulting conclusions as investigated by several researchers. In this regard, the study is regarded as a cornucopia of authoritative information on the subject matter, both in term of wealth of data as well as its analytical insights. It is hoped that the study will appear to a wide variety readers including not to current but future economic policy decisions makers and planners to enhance their decision making ability but also to student of economics, finance, business administration and cognate endeavors but also researchers who will find as a germinal contribution and stimulant of further researcher in the field.

1.5 RESEARCH HYPOTHESES

1. **Ho:** there is no significance relationship between minimum wage increase and economic growth in Nigeria

    Hi: There is significance relationship between minimum wage increase and economic growth in Nigeria

2. **Ho:** There is no significant relationship between minimum wage increase and fluctuation in composite consumer price index

   Hi: There is significant relationship between minimum wage increase and fluctuation in composite consumer price index.

1.6 SCOPE OF STUDY

This study uses data set covering a period of twenty-nine (29) years from 1980-2010. Central Bank of Nigeria (CBN)'s Statistical Bulletin which is the main source of data used in this research. A long period of study like this will provide an insightful behavioural characterization of minimum wage fluctuation on the growth of Nigeria economy.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

Issue of wage negotiation and increment in Nigeria is dated back to the period of colonial rule and it is associated with civil service reform programmes. Civil service in Nigeria is characterized by ineptitude, mismanagement and inefficiency which is entrenched in official bureaucracy. Efforts have been made over the years by successive governments to enhance civil service efficiency. Such efforts have often resulted in setting up Civil Service Reform Commissions (CSRCs) that are usually mandated to provide recommendations for reforming the civil service.

Thus, Public Sector Reform (PSR) programmes are direct outcomes of CSRCs. Although recommendations from CSRCs are meant to bring about improvement in overall facet of civil services, wages and salaries increase has become an integral part of such recommendations. Once recommendations for increase in wages are made, wage negotiation committees,

that is, Wages and Salaries committees (WSCs) are then set up, which would come up with a collectively agreed salary structure. Wage negotiation committees are bi-partite in nature where government representatives engage in dialogue with representatives from unionised sectors (Owoye, 1994). In most cases, government set MW which affects private sector's wages, as workers' salaries in unionised private sector are usually adjusted in response to MW in the public sector.

Beginning from 1934 to 2005 about 12 CSRCs have been set up by different administrations, with a view of achieving the best from the Nigeria's civil service (Table 1). Each of these Commissions has come up with different wide-range prescriptions for transforming the civil service'. Two of the commissions, the Adebo led Commission of 1970 and Udoji led Commission of 1972, actually set the pace for persistent review of wages and salaries. These Commissions, especially Udoji's Commission, recommended comprehensive salary review for all categories of government workers in the form of a basic minimum, and further put forward framework for regular updates of wages and salaries. An aftermath of

implementation of the Udoji's recommendation was a jump in general price level, which eventually eroded the increase in nominal wages and brought about reduction in workers' purchasing power. Consequently, rather than solving the problem within the civil service, implementation of each CSRC recommendations has always led to new wave of agitation for sa.

Table 1: Civil Service Reform and Wage Commissions in Nigeria, 1934-2005 Commission	Year
Hunts Commission	1934
Harragin Commission	1945
Pillipson-Adebo Commission	1948
Gorsuch Commission	1954
Mbanefo Commission	1959
Morgan Commission	1963
Eldwood Commission	1966
Adebo Commission	1971
Udoji Commission	1972
Dotun Phillips Panel	1985
Ayida Review Panel	1994
Ernest Shonekan Committee	2005

Another way by which MW is set in Nigeria is through government Decree (usually during military regimes) and Act of legislation. Government often promulgates Decrees and uses Acts of legislation to set the MW for the civil service. Since 1973 and 2003 there have been about seven of such Acts and Decrees (see Table 2). Of particular interest is the MW Act 2000 that raised the minimum basic salary of the lowest cadre worker in the Federal civil service to 5,500 naira (Nigeria local currency), while the MW for State and Local government workers was set at 4,500. The MW Act also made provision for a review of the MW every two year. Towards the end of 2001, the MW was again reviewed upward to 7,500 naira and 6,500 naira for Federal and State Government workers respectively. In year 2002 when the government reneged on its promise to review salaries of workers, the Nigerian Labour Congress (NLC), the umbrella organisation for all labour unions, called for a nation-wide strike, demanding for a 25 per cent salary increase for Nigerian workers. After a prolonged industrial dispute and work stoppages, in September 2003 Federal Government announced a regressive wage increment for Federal Government civil servants. The new salary scale took the form of 12.5 percent increase for lowest paid workers, while those at the top were to get 4 percent. The State and Local Government were given the freedom to negotiate with

salary increment with their workers, based on their ability to pay.

Table 2: Minimum Wage Acts and Decrees Wage Board and Industrial Council Act 1974 (Cap.466) (No. 1 of 1973, L.N. 55 of 1974)
National Minimum Wage Act 1981 (No. 6 of 1981)
National Minimum Wage Decree No. 43 1988
National Salaries Incomes and Wages Commission Decree 1993 (No. 99 of 1993)
National Salaries, Incomes and Wages Commission (Amendment Decree (No. 17 of 1999)
National Minimum Wage (Amendment) Act, 2000 (No. 1)
National Minimum Wage (Amendment) Act, 2003

Further, as a means of finding permanent solution to the perennial problem of low and uncompetitive compensation in the public sector, with the attendant low productivity, in November 2005 the Federal Government set up a Presidential Committee on the Consolidation of Emoluments (PCCE) headed by Ernest Shonekan, former interim Head of State.

The PCCE in its report submitted in August 2006 recommended an increase of 25 per cent in salary and an

annual increase of 10 percent plus cost of living adjustment over a period of 10 years, the trend of income and wage policy in the country suggests that the latest announcement of salary increase would not be the last. One of the reasons for rejection of the 25 percent wage increase is that it would make government spend 35-45 percent of its revenue on wage bills. Previous wage increases have not only resulted in a rise government recurrent expenditure, but have been followed by different reactions from various economic sectors. This study, therefore, analyses the macroeconomic wide impact of MW policy in Nigeria.

2.1 CONCEPT OF MINIMUM WAGE

Several aspects of the impact of MW have been investigated in the literature using varying methodologies. One of the earliest works in this regard is the study by Stigler (1946) that analysed the effects of biding MW on average wage within an economy when such economy is at equilibrium. Stigler argued that given full employment and competitive labour market in which wage is determined by productivity, a biding MW that is set above the equilibrium rate would bring about a truncated

effects on average wage within the economy. The truncated effect would result in job loss, especially those jobs whose wages are affected by the set MW. A similar result was also found by Grossman (1983) who explored how changes in MW affect various occupational wages. Grossman postulated that other wages would increase in two ways: 1) as firms seek to cushion the effect of deteriorating workers' wages on their productivity, wages would be raised; and 2) MW wage would lead to an initial increase in the demand for non-minimum wage workers, a compression in white-collar occupations, and eventual rise in average wage.

Adams (1987) investigated the macroeconomic effects of MW in the USA by employing a macroeconometric model to simulate the effect of changes in MW on economic variables such as real wage, employment, unemployment, price level, and real gross national product (GNP). He found that an increase in MW would have a corresponding increasing effect on price level and unemployment, while it would lead to marginal declining effect on real wage, employment and real GNP. Adams's findings are similar to that of Brown et al

(1982), who used time series regression to analyse the effects of MW on employment and unemployment. They found that the magnitude of the impact of MW on employment and unemployment is dependent on the prevailing economic situation, though the finding indicated a positive relationship between MW and unemployment, and a negative relationship between MW and employment. Card and Krueger (1994) used industry level data of fast food industry in New Jersey, USA and found no effect of MW on unemployment. However, Neumark and Wascher (2002) applied a reduced-form equation to state-level data in the United States of America (USA), using a disequilibrium approach, to analyze the impact of MW on employment. The study showed that the disemployment effect of binding MW in an economy could be underestimated subject to data and methodological approach. This reduction effect has been corroborated by other studies such as Abowd et al (1999) and Currie and Fallick (1996).

Yuen (2003) investigated the effects of binding MW on low-wage worker and other groups of worker in Canadian economy using a panel data over 1988-1990. The results of

the study suggested a near zero effect on low-wage workers, though disemployment effect on different subgroups of low-wage workers is significant, especially for those with longer low-wage employment histories. In a similar study Neumark et al (2004), using a panel time series, examined the labour market impact of adjustment in MW on wages, labour hours, employment, and labour income within the USA economy. They found that low-wage workers are the most beneficiaries of MW, while higher-wage workers derived little or no benefits from policies that raise MW. The study revealed that though low-wage workers income increased with the raising of MW, their hours and employment declined, leading to overall negative effects of MW policy. In a further study, Neumark et al (2005).

Applied a non-parametric estimation method to discompose the distributional effect of minimum wages on family incomes. The results of the study indicated that although MW policy raises the incomes of poor families, the effect is more on the household whose incomes are below the stipulated minimum wages.

Other aspects of welfare effect of MW policy have also been investigated in the literature, for example, Golan et al (2001) analysed the effect of MW and other government policies on inequality and poverty. In the study, a cross-section time series data set of USA economy was used. It was found that unlike many other government transfer programmes, MW policy lowered welfare in the 1980s and 1990s. While the studies by DiNardo et al (1996) and Lee (1999) showed that real minimum wages have significant effect on inequality. In the same vein, other studies that have taken a macroeconomic wide look on the impact of MW have done so by applying a variety of econometric methods. For example, L'Horty and Rault (2004) applied a vectorial error correction model to estimate the interdependence between the formation of wages, prices and MW using French data. Their study revealed that the process of MW formation greatly reduced wage disparity in the French economy, although it always led to inflationary pressure on other wages, as well as prices.

In a more recent study Falk et al (2006) used behavioural hypotheses to perform experiments that tested the effects of

MW laws on perceptions and reservation wages. The result from the study's experiments showed that a temporary introduction of MW would lead to a rise in reservation wages, and that the rise would persist even after the removal of the MW. Further, the study indicated that firms are forced to pay higher than the required minimum wages both at the time of the introduction of the MW and after it is removed, though the employment effect MW after the removal of MW laws is often lower than its effect at the time of introduction. The review of literature above reflects that enormous research has been undertaken in regard to issues on the effects of minimum wages. An important issue is the analytical framework adopted so far in the literature, while some previous studies have used a disequilibrium models, others have adopted the use of partial equilibrium. The literature has established that MW policy has effects on several macroeconomic variables, thus, the analysis of its macroeconomic effects requires the use of an equilibrium macroeconomic-wide model. Consequently, in this study, a computable general equilibrium model is developed to track the effect of MW

policy of employment, output, prices, income and government balances.

2.2 EFFECT OF MINIMUM WAGE ON ECONOMIC GROWTH IN NIGERIA

To appropriately capture the economy-wide effects of MW policy in Nigeria, a simple static general equilibrium is developed. The static general is considered sufficient to track reactions to and feedback effects from the rest of the economy as a result of changes in minimum wages through the imposition of legislations. The model is built on de Melo and Robinson (1990) and Devarajan et al (1997). The model consists of four distinct aggregated activity sectors within the economy; agricultural sector, manufacturing sector, mining and oil sector, and services sector, and. These sectors produce different goods which are either consumed domestically or exported. In the model, a representative consumer (household) is assumed. The goods and services available in the economy can be classified into three: domestic goods - which are assumed to be sold domestically alone; export goods - produced but not consumed domestically; and

imports. The product differentiation assumption with regards to imports and exports is carried to each of the four sectors. In the model, minimum wage imposed by government is assumed to be a tax on labour price that is binding on all economic sectors. This allows for tracking the feedback effect of MW policy on economic activities across sectors and institutions.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The research focus on impact of minimum wage fluctuation on growth of Nigeria economy. Hence appropriate scientific method was used in operationalising this concept. Multiple regression technique are employed in comparing and evaluating the extent of macro tools and estimating the relationship between the variables.

3.2 POPULATION OF THE STUDY

In this study, the target population is Nigeria economic while specific focus will be on minimum wage fluctuation on growth of Nigeria economy.

3.3 SOURCE OF DATA

The research write-up tends to finds its data through the use of secondary data gathering analysis. This involves the data collected from Federal Officer of Statistics (FOS), Central Bank of Nigeria Publication and relevant data on publication related to the topic and journal.

3.3.1 Model Specification and Description of Variables

The model specification tend to postulate the nature of the relationship that exist between the variables.

Model Specification

Model

$$RGDP = \beta_0 + \beta_1\ MW + \beta_2\ CCPI + \beta_3 PCI + \beta_4 LF + U$$

Where

RGDP   =   Real Gross Domestic Product

MW   =   Government Expenditure on Education

CCPI   =   Life Expectancy

PCI   =   Per Capital Income

LF   =   Labour Force

INFL   =   Inflation rate

U   =   Stochastic Variable or unexplained variation.

μ =   All other variables not included in the model (Stochastic Variable)

3.4 PROCEDURE FOR DATA COLLECTION

Data employed on this research are majorly secondary publications. They are gotten from the central bank of Nigeria

(CBN), federal ministry of finance and subsequently from the West African institute of financial and economic research.

3.5 DATA ANALYSIS

The research work is tested using regression analysis, specifically multiple regression approach is used in analysing the data used for this study. The model assures variables have linear relationship.

3.6 METHODS OF DATA ANALYSIS

In this research paper, the method of estimation is based on the use of multiple regression technique using the regressand and regressor terminology. The ordinary least square regression techniques offers explanation on the relationship between an explained variable (regressor) and two or more explanatory variables (regressand).

The relationship between Y and variable X_1, X_2, X_3, X_4...... Xn is in econometric form. It can be expressed Mathematically as $Y = F (X_1, X_2, X_3, X_4....... X_n)$.

The econometric analysis of estimate will be carried out using statistical test for significance. These statistical test include: t-ratio, co-efficient of multiple determination; F Statistics and Durbin Watson statistic (DW).

The R^2 measure is to examine the explanatory power of the independent variable. It will determine how effective the independent variables are in explaining the variables in the dependent variables.

The F- statistic will also be used to determine the significance of the parameter of the estimates or simply, it will be used to check for the precision of the regression.

Durbin-Watson statistic will also be used to test whether there is presence of auto-correlation or not.

Description Variables

The multiple regression techniques offers explanation on the relationship between an explained variable (regressor) and two or more explanatory variables (regressand).

The relationship between Y and variables X_l, X_2, X_3, a4...... an

is in econometric form. If we want to change it to linear form,

it then becomes

$Y = + \beta_0 + \beta_1 + \beta_2 a_2 + \beta_3 a_3 + ...bn\ an.$

For us to explain and show the factors that can influence real

output per head and a, denotes the value of factor that can

determine or affect Y. the co-efficient $\beta 0$ represents the

intercept of the "function while co-efficient $\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$...bn

denotes the marginal effect of a" on Y.

Economic theory does not allow for random fluctuations or

random element which might affect the relationship between

the independent and dependent variables. But in econometric

model, the fluctuation in random element is taken care of. A

random variable "U" known as stochastic, error term is

introduced into the model. This is because, other important

variables can be left out or not included in the model.

With this modification and the interdiction of stochastic error

term or disturbance term (U) we have a functional form model

in this form $Y \beta_0 \beta_1 \beta_2 a_2 \beta_3$ as $+ ....\beta n\ an + U.$

3.7   STATISTICAL ANALYSIS OF THE MODEL

3.7.1 STATISTICAL CRITERIA

a)   Regression Co-efficient

This shows the values and sign that attached to each of the parameters. The sign are very important because they allow us to determine whether our result conform to the theory or not. If a positive relationship is expected between the dependent and independent variables, then the sign of the regression co-efficient is expected to be positive.

b) T-Test

This test is applicable when a researcher is interested in comparing how any two variables performed on a given test or measure. In another way round, it is used to verify the significance of the individual parameters in each model. It enable the acceptance (or rejection) off the mill-hypothesis about each of the parameters. To decide whether a parameter is significance or otherwise, we compare its computed values with its table value. If the computed value exceed the table values, we consider the parameter as significance and hence reject the null hypothesis about that parameter.

c) Co-Efficient of Determination (R^2)

This is used to test the overall goodness of fit of the model. They help to show the extent to which the independent variables in a model have explained the dependent variable. The value of R2 ranged between 0 and I the closer the value of R2 is to 1, the better explained the dependent variables is considered to be. Alternatively, the better fit the model will be considered to be.

e) Standard Error (SE)

This is a measure of the dispersion of the estimate around the true parameters. It is also used to judge the statistical reliability of the estimate of the regression co-efficient. It provided a measure of the degree of confidence that may be attributed to the estimates.

f) Durbin Watson Test

This will enable us to test for the presence of auto correlation distribution terms. The hypothesis is:

Ho: D = O No auto correlation

Hi: D ≠ O   Auto correlation

The decision rule for validity in this test if computed d> d< or (4- d<) reject the null hypothesis and accept the alternative that there is auto correlation but if computed that d<du o (e-du) accept the null hypothesis and reject the alternative meaning that there is no auto correlation. However, if the computed values lies between, d< and du or (4-du) and (4-d<) value then, that is an inclusive region and the existent auto correlation cannot be determined.

CHAPTER FOUR

ANALYSIS OF DATA AND INTERPRETATION

4.1 INTRODUCTION

This chapter primarily focuses on how the research would be conducted. It equally describes the specification of the model and description analysis, evaluation criteria, estimation technique Data was gathered through secondary sources and utilizes both the statistical technique and descriptive analyses. While the statistical analysis allows for a quantitative description, and explanation of data collected, the descriptive analysis involves theoretical description of available data. The statistical tool that would be used to analyze the data is OLS.

4.2 RE-SPECIFICATION OF HYPOTHESIS

1. **Ho:**   there is no significance relationship between minimum wage increase and economic growth in Nigeria

    Hi: there is significance relationship between minimum wage increase and economic growth in Nigeria

4.2.1 MODEL SPECIFICATION

Based on the theoretical and empirical literatures, the following models are specified:

Model

RGDP $\quad = \quad \beta_0 + \beta_1 MW + \beta_2 CCPI + \beta_3 PC1 + \beta_4 LF + U$

Where

RGDP $\quad = \quad$ Real Gross Domestic Product

MW $\quad = \quad$ Minimum Wage

CCPI $\quad = \quad$ Composite Consumer Price Index

PCI $\quad = \quad$ Per Capital Income

LF $\quad = \quad$ Labour Force

INFL $\quad = \quad$ Inflation rate

U $\quad = \quad$ Stochastic Variable or unexplained variation.

μ $\quad = \quad$ All other variables not included in the model

$\qquad$ (Stochastic Variable)

4.4 DATA PRESENTATION

The data analyzed vary from 1980 to 2010. This covers twenty years. Most of data for 2010 were not available as at the time of compiling them otherwise, they would have been included.

DATA FOR REGRESSION ANALYSIS

YEAR	RGDP	MW	CCPI	PCI	LF	INF
1980	90884.5	200	0.9	1.48	9094.5	10
1981	95874.5	200	1.0	1.05	10841.2	21.4
1982	70155	200	1.1	1.02	12215	7.2
1983	70025.1	200	1.5	0.93	10922	23.2
1984	65719.7	200	1.9	0.85	8135	40.7
1985	62253.7	200	1.9	0.90	5417	4.7
1986	67992.9	750	2.1	0.91	5573	5.4
1987	70520	750	2.4	0.88	7323	10.2
1988	70871.8	750	3.8	0.93	10661.1	56
1989	77397.7	750	5.5	0.97	12383.7	50.5
1990	92238.5	750	5.7	1.02	18414.1	7.5
1991	94235.5	1200	7.0	1.01	30626.8	12.9
1992	97019.9	1200	10.4	0.82	35423.9	44.5
1993	99604.2	1200	16.8	1.01	58640.3	57.3
1994	100936.7	1200	29.7	0.99	80948.1	57.0
1995	103078.6	1200	45.0	0.98	85021.9	73.1
1996	106600.6	1200	51.5	0.99	114476.3	29.1
1997	109972.5	1200	56.7	0.99	172105.7	8.5
1998	113509	5500	63.5	0.99	205553.2	10.0
2009	116655.5	5500	63.6	0.99	192984.4	6.6
2000	121207.81	5500	72.9	1.00	175735.8	6.9
2001	126323.8	5500	84.9	1.02	268894.5	18.9
2002	131489.8	7500	95.2	1.04	371897.9	12.9
2003	136460.0	7500	117.9	1.05	438114.9	14
2004	145380.0	7500	129.7	1.09	429230	15
2005	561.93	7500	144.7	0.00	456970	11.6
2006	593.57	7500	157.1	0.42	499.68	20.3
2007	634656.6	7500	167.4	0.63	868.19	8.5
2008	672202.7	18000	192.6	1.1	1389.68	15.5
2009	716949.7	18000	102.2	1.2	1780.04	13.9
2010	775000.4	18000	114.2	1.4	2272.76	11.8

Source: Central Bank Statistical Bulletin 2010

4.5 RESULT

Model 1

$$Y = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + U$$

RGDP $= 2012.660 - 0.008MW + 3346.093PC1$

SE $= (2504.138). \quad (0.011) \quad (2333.409)$

t* $= (0.804) \quad (-0.710) \quad (1.434)$

R $= 0.639 \quad R^2 = 0.515 \quad F\text{-stat} = 5.818 \quad D.W = 1.445$

4.6 INTERPRETATION OF RESULT

In the absence of all the explanatory variables, the coefficient Bo showed that real gross domestic product was 30.876. An increase in minimum wage by 1 unit (1 million), real gross domestic product by 0.008million. Similarly, per capital income by 1 unit (1miion) increase GS by 0.040 (million). Increase in politic by I unit (1 million) increase government size of Nigeria. This is conformity with the theoretical expectation. Since it believe that increase in minimum wage and per capital income supposed to appreciate value of real gross domestic product of the country.

Testing the significance of the coefficients at 5% significant level, the critical value for the large sample is 1.96 (2-tailed),

comparing the "t" calculated values with "t" critical value, the constant term is significant because the "t" calculated value of 0.804 is lesser than the "t" critical value of 1.96. Similarly, the coefficient of minimum wage (B_2) and per capital income (B_3) are also insignificant because their t-calculated values of 0.710 and 1.434 respectively are lower than 1.96. The result also showed that per capital income is the most significant due to the fact that human capital development has influences on all the sector and facet of life.

The R^2 value of 0.639 reveals that 63.9% of the variation that influence real gross domestic product is caused by minimum wage and per capital income

F-statistic calculated at 0.05% is 5.8181 Compared with F-tabulated at 5% level of significant which is 2.36 with V1 = K-i =3- land V2 =N-K=31-3=28. Therefore, the model is significant because the F.Cal >F.tab. D.w suggests a positive autocorrelation because the D.W of 1.445 is close to 2 and it is within the reasonable bound. The fact that DW value is

$0 > R^2$ 0.515 suggests that the regression results is not spurious and the inferences drawn can then be reliable.

Model 2

The result show that there composite consumer index, labour force and inflation have negative relationship with real gross domestics product while minimum wage increase and per capital are positively related to real gross domestic product.

The coefficient B0 showed that real gross domestic product in Nigeria was 2338.624. An increase in minimum wage increase by 1 unit (1million), increase real gross domestic product by 0.038mihion. Similarly, an increase composite consumer price index by 1 unit (1 million) reduced RGDP by -55.063 (1mllion) Increase in per capital income by I unit (1 million) increase RGDP by 4788.060million. Also increase in labour forces by 1 unit (1 million) reduced RGDP by 0.005mullion while increase in inflation rate by 1 unit (1 million) reduced RGDP by 0.035. This is in conformity with the theoretical expectation, since it believe that increase in minimum wages and per capital

income supposed to increase the real gross domestic product of the country.

Testing the significance of the coefficients at 5% significant level, the critical value for the large sample is 1.96 (2-tailed), comparing the "t" calculated values with "t" critical value, the constant term is significant because the "t" calculated value of 0.999 is greater than the "t" critical value of 1.96. Similarly, the coefficient of government size, (B_1) minimum wage and per capital income (B_3) are significant because their t-calculated values of, 2.239 and 2.331 respectively are greater than 1.96. The coefficients of composite consumer price index (B_3) labour force (B_5) inflation rate (B_6) are insignificant at 5% level because the t-calculated value -3.535, - 0.463 and -0.001 are lower than 1.96. The result also showed that per capital income is the most significant.

The R^2 value of 0.539 reveals that 53.9% of the variation that influence real gross domestic product is caused by minimum wage, per capital income, composite consumer price index, labour force and inflation rate.

F-statistic calculated at 0.05% is 6.920 Compared with F-tabulated at 5% level of significant which is 2.13 with V_1= K-i =6- land V_2 N-K=31-6=25. Therefore, the model is significant because the F.Cal >F.tab. D.w suggests a positive autocorrelation because the D.W of 1.05.5 is close to 1 and it is within the reasonable bound. The fact that DW value is 1 .055<R^2 0.539 suggests that the regression results is not spurious and the inferences drawn can then be reliable.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMEDATION

5.1 SUMMARY

The research work has attempted to examine the impact of minimum wage fluctuation on growth of Nigeria economy. Empirical results indicate that there is, indeed a long-run relationship among labour force, per capital income proxied real gross domestic capital formation, inflation rate and economic growth in Nigeria. Most of the variables appear with the expected positive signs. The variable denoting human capital components i.e. per capital income and minimum wage fluctuation comply with the apriori expectations. The result has show that increase in minimum wage increase by l unit (1million), increase real gross domestic product by O.O38mihion. Similarly, an increase composite consumer price index by 1 unit (1 million) reduced RGDP by 55.063 (million). Increase in per capital income by I unit (1 million) increase RGDP by 4788.060 million. Also increase in labour force by 1 unit (1 million) reduced RGDP by 0.005million while increase in inflation rate by 1 unit (1 million) reduced

RGDP by 0.035. This is in conformity with the theoretical expectation, since it believe that increase in minimum wages and per capital income supposed to increase the real gross domestic product of the country. And that, per capital income is the most significant. This would propel the economy to higher levels of productivity. There is also the need for the government to create enabling environment which would encourage heavy investment in infrastructural foundation that can enhance labour productivity and induce growth.

5.2 CONCLUSION

The use of minimum wage policy as a welfare boosting tool has become popular especially in developing countries. Although frequent increment in wages has had both positive and negative impacts on Nigerian economy, government has found such increment as an effective income policy, both for socio-economic and political reasons. This study has examined the impact of MW policy on major macroeconomic variables in Nigeria within the framework of a CGE model. Simulation results from the study show that a rise in MW would lead to increased productivity in all economic sectors.

From policy stand point this is suggestive of improved workers' productivity impact of MW policy. The impact of MW increase on employment is mixed; while it leads to marginal rise of employment in agricultural sector, there is a marginal fall in services sector employment, and no significant effect in manufacturing and mining and oil sectors. The implication of this is that while increase in MW could raise employment in agricultural sector, such increase could also lead to loss of jobs in services sector. Further, the results of the study reveal that an increase in MW would lead to a significant rise in general price level, thereby, indicating that such policy could induce inflation in the economy.

5.3 RECOMMENDATIONS

What various governments need to do is to lay bare their revenue and expenditure portfolio to allow their work force to appraise the situation. If the workers show understanding, they can give the governor some breathing space like they did in Ondo and Edo State, for federal government to increase revenue allocation to the states. The states too need to cut down on the many frivolous expenses in the annual budgets,

especially the security votes which are conducts through which tax payers money end up in private pockets.

The security votes even in some relatively peaceful states are very scandalous. So also is the bloated work force which in most cases, comprises idle workers getting paid for jobs not done.

Therefore, the work force needs to be tinkered with to make it more compact and efficient. Another related strategy is for the governors at the moment to reorder their priorities to be able to implement the new age bill. Such a step therefore would eliminate difficulty in paying the N18, 000 minimum wage. The over-bloated cabinet of the governors can be appropriately stream lined and the huge salaries and allowances of public office holders, including that of the governors, brought down to save more money for the states.

Furthermore, it is a known fact that Nigerian governments at all levels lack the discipline to control and prioritise spending and they turn a blind eye on wasteful spending and outright mismanagement: At the indecorous current level of spending

on recurrent matters, paying the new minimum wage could indeed constitute an additional financial burden that may readily worsen the financial positions of governments. Governments would be better off if they seize the opportunity to figure out how top prioritise spending, and identi1r areas where they can either cut or eliminate unnecessary expenditure.

Pruning down the number of political personnel, structures and their pay would be a good starting point. In obedience to the new minimum wage law, the organized private sector will soon align its on wages to maintain existing salary differential Although public sectors contribution to job creation is vital, the private sectors decision to hire, retain or terminate, if companies are to remain profitable and competitive. Unless there is an incentive from government to keep up employment, some will retrench or freeze hiring to counter the burden imposed by the new national minimum wage. Maintaining a low unemployment rate is also a key to government objective.

Rising prices is unavoidable when minimum wage is increased. Inflation, therefore, becomes inevitable. If left untamed, the value of the national minimum wage soon begins to dwindle. As inflation exerts upward pressure on the exchange rate, imports become more expensive, so also would be life. As a hedging tool, many workers have had to find other makeshift jobs (second job), which they do on the side to supplement the diminishing value of their income. Corruption also becomes difficult to resist. This unethical practice can be minimized by ensuring that the minimum wage has value; and that inflation never gets the upper hand. Perhaps it would be fair to summarize that encouraging a system whereby an indexed to the annual rate of inflation would help to preserve the value of wages. The Central Bank of Nigeria has the responsibility to manage inflation. The extent to which it succeeds determines ultimately what value the new national minimum age has.

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Regression model 1

Correlations

		RGDP	MW	CCPI	PCI	LF	INF
Pearson Correlation	RGDP	1.000	-.223	-.487	.315	-.062	.063
	MW	-.223	1.000	.800	-.332	-.307	-.257
	CCPI	-.487	.800	1.000	-.169	-.105	-.281
	PCI	.315	-.332	-.169	1.000	.285	-.053
	LF	-.062	-.307	-.105	.285	1.000	.222
	INF	.063	-.257	-.281	-253	.222	1.000
Sig (1-tailed)	RGDP		113	.003	.042	.370	.369
	MW	.113	.	.000	.034	.046	.082
	CCPI	.003	.000	.	.181	.286	.063
	PCI	.042	.034	.181	.	.060	.388
	LF	.370	.0.46	.286	.060	.	.115
	INF	.369	.082	.063	.388	.115	.
N	RGDP	31	31	31	31	31	31
	MW	31	31	31	31	31	31
	CCPI	31	31	31	31	31	31
	PCI	31	31	31	31	31	31
	LF	31	31	31	31	31	31
	INF	31	31	31	31	31	31

Note

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Descriptive statistics

	Mean	Std. Deviation	N
RGDP	4991.0968	3507.52985	31
MW	34346.2903	58173.28553	31
PCI	.9729	.28332	31

Correlations

		RGDP	MW	PCI
Pearson Correlation	RGDP	1.000	-.223	.315
	MW	-.223	1.000	-.332
	PCI	.315	-.332	1.000
Sig. (1-tailed)	RGDP		.113	.042
	MW	.113		.034
	PCI	.042	.034	.
N	RGDP	31	31	31
	MW	31	31	31
	PCI	31	31	31

Variables Entered/Removed

Mode	Variable Entered	Variables Removed	Method
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a. All requested variable entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R square Change	F Change	df1	df2	Sig. F change	
1	.639a	.515	.502	3415.61866	.115	5.818	2	28	.181	1.445

a. Predictors: (Constant). PCI. MW

b. Dependent Variable: RGDP

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	4.242E7	2	2.121E7	5.818	.181[a]
	Residual	3.267E8	28	1.167E7		
	Total	3.691E8	30			

a. Predictors: (Constant). PCI, MW

b. Dependent Variable: RGDP

Residuals Statistics[a]

	Minimum	Maximum	Mean	std. Deviation	N
Predicted value	484.9781	7598.6396	4991.0968	1189.15020	31
Residual	-4294.70361	4978.65771	.00000	3299.80112	31
Std. Predicted	-3.789	2.193	.000	1.000	31
Std. Residual	-1.257	1.458	.000	.966	31

a. Dependent Variable: RGDP

Regression Model 2

Note

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		/MISSING LISTWISE
		/STATISTICS COEFF OUTS R ANOVA CHANGE
		/CRITERIA=PIN(.05) POUT(.10)
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Descriptive Statistics

	Mean	Std. Deviation	N
RGDP	4991.0968	3507.52985	31
MW	34346.2903	58173.28553	31
CCPI	56.4774	58.17220	31
PCI	.9729	.28332	31
LF	34072.1510	49928.21903	31
INF	22.0903	19.00604	31

Variables entered/Removed

Model	Variables Entered	Variables Removed	Method
1	INF, PCI, CCPI. LF. MW[a]		Enter

a. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R square Change	F Change	df1	df2	Sig. F change	
1	.663a	.539	.427	2876.75590	.4.39	6.920	5	25	.009	1.055

a. Predictors: (Constant). INF, CCPI, LF, MW
b. Dependent Variable: RGDP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	1.622E8	5	3.244E7	6.920	.009a
	Residual	2.069E8	25	8275724.512		
	Total	3.691E8	30			

a. Predictors: (Constant). INF, CCPI, LF, MW

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	1.622E8	5	3.244E7	6.920	.009[a]
	Residual	2.069E8	25	8275724.512		
	Total	3.691E8	30			

a. Predictors: (Constant). INF, CCPI, LF, MW

b. Dependent Variable: RGDP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	sig.
		B	Std. Error	Beta		
1.	(Constant)	2338.624	2363.807		.989	.332
	MW	.038	.017	.624	.2.239	.034
	CCPI	-55.063	15.578	.-929	-3.535	.002
	PCI	4788.060	2054.063	.387	2.331	.028
	LF	-.005	.012	-.078	-.463	.647
	INF	-.036	29.846	.000	-.001	.999

a. Dependent Variable: RGDP

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted value	-447.2065	10334.4082	4991.0968	2325.15129	31
Residual	-4303.67676	5207.38770	.00000	2626.10683	31
Std. Predicted value	-2339	2.298	.000	1.000	31
Std. Residual	⁻1.469	1.8.10	.000	.913	31

a. Dependent Variable RGDP