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Critical Research on Impact of Contributory Pension Scheme on Economic Growth in Nigeria

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ABSTRACT

The study examined the impact of contributory pension scheme on economic growth in Nigeria for the period 2004-2012. The objectives of the study were to determine the impact of pension funds on economic growth and as well as to ascertain the impact of pension savings mobilized on economic growth. The study used Ex-post-facto research design. Ordinary Least Square Regression method was used in data analysis. The study finds that pension funds have negative and significant impact on economic growth while pension savings had positive and significant impact on economic growth. The implication of the finding is that the contributory pension scheme has achieved the objective of using pension funds to provide long term capital that will promote economic growth. It also implies that pension savings contribution is low, an indication of low coverage of the scheme. It was recommended that investment outlets of pension funds should be increased and efforts should be intensified to ensure greater compliance and mobilization of savings from contributors.

Keywords: PENCOM; NPF; NSITF; NAICOM; economic growth; PAYG.

ABBREVIATIONS

AVC	:	*Additional voluntary contributions.*
CPS	:	*Contributory Pension Scheme*
CPFA	:	*Contributory Pension Scheme Administration*
DBS	:	*Defined Benefit Scheme*
JTB	:	*Joint Tax Board*
Micro Pension Scheme	:	*This enables Nigerian entrepreneurs and employees working in MSMEs with less than 3 employees to save towards retirement.*
MSMEs	:	*Micro, Small and Medium Enterprises*
NAICOM	:	*National Insurance Company*
NPF	:	*National Provident Fund*
NSITF	:	*National Social Insurance Trust Fund*
PAYG	:	*Pay-As-You-Go*
PENCOM	:	*National Pension Commission*
PFC	:	*Pension Fund Custodians*
RSA	:	*Retirement Savings Account*

1. INTRODUCTION

1.1 Background of the Study

A worker who has worked in a given establishment for some years deserve some benefit which could take the form of pension or gratuity payable to the worker by the employer at the time of retirement. Pension is viewed as a sum of money paid regularly to a person who no longer work because of old age, disability, retirement or to his widowed or dependent children by the state, former employers or

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from provident fund to which he and his employer both contributed [1]. Pension Scheme was introduced into Nigeria by the Colonial Administration following the 1951 Pension Ordinance with retroactive effect from 1946. The Ordinance provided public servants with both pension and gratuity [2]. The first pension scheme in Nigeria was set up for the employees of the Nigerian Breweries Limited in 1954, followed by United African Company in 1957. The first Social Security Scheme in Nigeria came into being in 1961 by the Act of Parliament, which established the National Provident Fund (NPF). The NPF scheme was set up to address pension matters of private organizations in Nigeria [3]. In 1993, the National Social Insurance Trust Fund (NSITF) was set up by Decree No 73 of 1993 to replace the defunct NPF [4].

Pension scheme in public sector which comprises of Civil Service, Public Services and Statutory bodies were governed by Pension Act of 1979, which was later replaced by the Pension Act of 1990 as amended by the Pension Regulations of 1991 [5]. Before 2004, Nigeria had operated specifically in public sector a Defined Benefit (DB) pension scheme that was largely unfunded, non-contributory, and pension and gratuity were salary related and financed totally by the government budgeting provisions on Pay-As-You-Go (PAYG) basis [6]. The Nigerian pension industry was regulated by the Securities and Exchange Commission (SEC), National Insurance Commission (NAICOM) and the Joint Tax Board (JTB) [5].

The pre 2004 pension reforms had a number of problems and were replaced by the Pension Reform Act 2004. The major weaknesses of the pre 2004 pension reforms to include: Massive accumulation of debt estimated at over two trillion naira; large-scale arrears of unfunded entitlement of retirees; inadequate budgetary provisions coupled with rising life expectancy; increasing number of employers, wages and pensions; and inadequate supervision and regulation of pension system [7] & [5]. These shortcomings adversely affected payments of retirement benefits to retirees in Nigeria.

The Pension Reform Act 2004 came into being on 25th June, 2004. The Pension Reform Act 2004 [8] is a multi-pillar pension scheme copied from 1981 Chilean Pension Scheme [9]. The idea of PRA 2004 was to allow Nigeria follow the Chilean model of providing long-term capital to develop the financial markets and improve economic growth; to solve the problem of growing pension arrears and unfunded entitlements; and to add to credibility of general economic reform effort of the government [10]. The idea behind the introduction of the contributory pension scheme is to serve as a tool towards the realization of the goal of savings mobilization, which can lead to capital market development, thereby fostering economic growth in Nigeria [11].

The PRA 2004 introduced a Contributory Pension Scheme, which is mandatory on employees and employers in public and private sector organizations with five or more employees to contribute 7.5% of each emoluments of the employee into a Retirement Savings Account (RSA). For the military, the employees contribute 2.5% while the employer contributes 12.5% [12]. The provisions of PRA 2004 provides for the establishment of National Pension Commission (PENCOM) which is empowered to register, license, supervise and regulate corporate organizations that will act as Pension Fund Administration (PFAs) and each PFA, in turn selects a Pension Fund Custodian (PFC) who manages the fund on its behalf [13]. Currently, there are 26 Pension Fund Administrators, 7 Closed Pension Fund Administrators (CPFA) and 5 Pension Fund Custodian, and they are expected to capture a potential 50million contributors [14].

Pension fund assets have grown from N47 billion in 2004 to N2, 029.77 billion in 2010 while Pension savings contribution from the public and private sectors has grown from N15.6 billion in 2004 to N289.9 in 2010 [15]. These pension funds are expected to be invested in 11 specified asset classes which include: Local Ordinary Shares, Federal Government of Nigeria, State Government Securities, Corporate Bonds, Financial Institution Deposits, Open and Closed-End Funds, Foreign Money Market Securities, Real Estate Properties, Unquoted Securities and Cash /Other Assets. This study seeks to determine the impact of contributory pension scheme on economic growth in Nigeria.

Pension funds add value to world economies through direct contribution to the GDP, accumulation of savings, financial market development, reducing old age poverty and acting as consumers of financial services [16]. One major problem facing the contributory pension scheme in Nigeria is the dearth of

investment outlets. For instance, there are only 11 classes of investment available for investment of pension assets which is estimated at N2, 029.77 billion [15]. The fear is that the limited investment outlets may not be enough to assimilate the accumulated pool of pension fund assets. Thus a pool of pension funds may be chasing relatively few quality investments.

1.2 Insight into the Contributory Pension Scheme in Nigeria

The Contributory Pension Scheme (CPS) was enacted to reduce poverty and enhance the socio-economic conditions of Nigerians. It started in July 2004 and was created to assist workers to save in order to cater for their livelihood during old age. Before the adoption of the Contributory Pension Scheme, there exist other pension schemes like the Defined Benefit Scheme (DBS). The downside to this old pension scheme and other similar ones comprised of unsustainable pension liabilities, weak and inefficient administration of schemes in both public and private sectors and the existence of diversified arrangements which were largely unregulated in the private sector.

As compared to the old pension schemes where most of the accounts were not fully funded and there were no ready funds to pay the pensioners, the contributory scheme funded and provides for the contributor to account for his self-security. As the name implies, the pension scheme is contributory in nature. This means that the employer is expected to contribute a minimum of 10% of the employee’s monthly emoluments (sum of the basic salary, transport, and housing allowances) while the employee contributes a minimum of 8%; making a total of 18% pension contributions. It is contributed to the individual employee’s Retirement Savings Account (RSA) and is accessible as benefits when he/she retires [17].

1.3 Statement of the Problem

Prior to the enactment of the Pension Reform Act 2004, pension scheme in Nigeria had been bedeviled by many problems. The Public Service operated an unfunded Defined Benefits Scheme and the payment of retirement benefits were budgeted annually. The annual budgetary allocation for pension was often one of the most vulnerable items in budget implementation in the light of resource constraints. In many cases, even when budgetary provisions were made, inadequate and untimely release of funds resulted in delays and accumulation of arrears of payment of pension rights. It is obvious therefore that the Defined Benefits Scheme could not be sustained.

In the private sector on the other hand, many employees were not covered by the pension schemes put in place by their employers and many of those schemes were not funded. Besides, where the schemes were funded, the management of pension funds was full of malpractices between the fund managers and the Trustees of the pension funds [18].

This scenario necessitated a re-think of pension administration in Nigeria. Accordingly, the administration initiated a pension reform in order to address and eliminate the problems associated with pension schemes in the country. The outcome of the reform was the enactment into law of the Pension Reform Act 2004.

Nine years after the introduction of contributory pension scheme in Nigeria, there is still doubt as to the ability of the scheme to solve the problem of scarcity of long-term funds for long-term investment. Similar fear was expressed that forced savings in a low income country with large scale poverty and inadequate complementary social security system may not be desirable in Nigeria [7]. However, some notable authors in this field of study have expressed optimism that the contributory pension scheme has the potentials of mobilizing savings for economic growth [4,19,11].

The contributory pension scheme is expected to mobilize savings for financial market development and economic growth. Surprisingly, as at 2010, pension contributors were 3.89 million which represents 7.62% of the estimated 51 million working population in Nigeria. The pension fund assets as percentage of the GDP in 2010 was 7.8% while pension savings as percentage of the GDP was 1.11% in 2010 [14,15]. This study seeks to fill the research gap by empirically analyzing the impact of contributory pension scheme on economic growth in Nigeria.

1.4 Objectives of the Study

The specific objectives of the study are:

i. To determine the impact of pension funds on economic growth
ii. To ascertain the impact of pension savings mobilized on economic growth.

2. REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework

Endogenous growth theory holds that economic growth is primarily the result of endogenous and not external forces [20]. It is of the view that investment in human capital, innovation, and knowledge are significant contributors to economic growth. The theory also focuses on externalities and spillover effect of a knowledge-based economy which will lead to economic development. The endogenous growth theory primarily holds that the long run growth rate of an economy depends on policy measures. For example, subsidies for research and development or education increase the growth rate in some endogenous models by increasing the incentive for innovation.

In the mid-1980s, a group of growth theorists became increasingly dissatisfied with common accounts of exogenous factors determining long-run growth. They favored a model that replaced the exogenous growth variable with a model in which the key determinant of growth were explicit in the model. The work of these group theorists formed the bases of this research [21,22,23,24].However, other prominent scholars omitted technological change; instead, they were of the opinion that growth in these models is due to indefinite investment in human capital which had a spillover effect on the economy and reduces the diminishing return to capital accumulation [25,26,27,28,29,30].

The AK model, which is the simplest endogenous model, gives a constant-savings rate of endogenous growth and assumes a constant, exogenous, saving rate. It models technological progress with a single parameter (usually A). It uses the assumption that the production function does not exhibit diminishing returns to scale to lead to endogenous growth. Various rationales for this assumption have been given, such as positive spillovers from capital investment to the economy as a whole or improvements in technology leading to further improvements. However, the endogenous growth theory is further supported with models in which agents optimally determined the consumption and saving, optimizing the resources allocation to research and development leading to technological progress. Very significant contributions were made, incorporated imperfect markets and R&D to the growth model [31,32,33,30].

The theoretical framework for this study is the Endogenous “AK” Growth Theory. According to Endogenous “AK” growth theory, an economy’s long-run growth rate depends on its saving rate. The endogenous “AK” growth theory offered assumes that financial intermediation could affect economic growth through three channels namely: changing productivity of capital, savings funneled to investment and savings rate [34]. In other words, financial development reduces the loss of resources needed to allocate resources, encourage greater savings ratio, and increase capital productivity. The theory assumes that only one type of goods is produced with capital as the only input factor.

In a special case where the marginal product of capital is exactly constant, aggregate output Y is proportional to the aggregate stock of capital K:

$$Y = AK \qquad \text{(a)}$$

Where A is a positive constant. Hence the term “AK theory”.

According to AK theory, an economy’s long-run growth rate depends on its saving rate. For example, if a fixed fraction s of output is saved and there is a fixed rate of depreciation δ, the rate of aggregate net investment is:

$$\frac{dK}{dt} = sY - \delta K \qquad \text{(b)}$$

which along with (a) implies that the growth rate is given by:

$$g \equiv \frac{1}{Y}\frac{dY}{dt} = \frac{1}{K}\frac{dK}{dt} = sA - \delta \qquad \text{(c)}$$

Hence, an increase in the saving rate s will lead to a permanent higher growth rate.

A similar analysis with a more general production structure was produced [25], under the assumption that saving is generated by inter-temporal utility maximization instead of the fixed saving rate [35]. Also, another theorist [26] produced a similar analysis focusing on human capital rather than physical capital; that followed an earlier assumption that human capital and technological knowledge were one and the same [22].

NOTE:
In this study, it is the author's discretion to use the following symbols and their respective explanations:

Y_t = Output, $_t$ = Time, K = Capital, and A = Capital Productivity.

Hence, $Y_t = AKt$ (1)

This implies that capital stock in time $_{t+1}$ is given as:

$$K_t = I_t + (1\text{-}d)\,K_t\text{-}1 \qquad (2)$$

Where d = rate of depreciation and I = investment. The implication is that if a fixed fraction (s) of output (y) is saved and there is a fixed rate of depreciation (d), the rate of aggregate net investment is given as:

$$\frac{dK}{dt} = sY - \delta K \qquad (3)$$

which along with (1) implies that the growth rate is given by:

$$g \equiv \frac{1}{Y}\frac{dY}{dt} = \frac{1}{K}\frac{dK}{dt} = sA - \delta \qquad (4)$$

2.2 Empirical Review

A study was carried out on the assessment of the impact of contributory pension scheme on Nigerian economic development for the period (2007-2010) [1]. The study used survey research design, and sample size of 30 and 70 for both staff and customers of Legacy Pension Ltd. It also adopted correlation analysis for testing secondary data and ANOVA for the primary data. The study revealed that risk prevalent has positive effect on pension fund management and that the contributory pension scheme has significant positive impact on the GDP.

There was a comparison between the old pension scheme with the Pension Reform Act 2004 [6]. The study adopted comparative analysis method to compare and contrast the pre-2004 pension scheme with Pension Reform Act 2004. The study finds that the PRA 2004 is better than the pre-2004 pension

scheme, and that the PRA 2004 is expected to help remedy the deficiencies and inadequacies prevalent in the old pension scheme. The study recommended more stringent coordination, supervision and regulation of the pension industry in Nigeria.

Contributory pension system as a tool for economic growth in Nigeria was studied [11]. The study used descriptive statistics, percentages and charts to analyze data collected. Their findings revealed that the contributory pension scheme has begun to contribute to increase in growth of the Nigerian capital market and economic growth.

Further, pension reforms in Nigeria for the period 2006 to 2010 was studied [5]. The study finds that the funded pension system has not had any significant impact on the development of financial market and that real sector investment was not boosted by savings from pension scheme. Also the macroeconomic credibility of the government has declined. The implication of the findings was that the regulatory environment failed to encourage interaction between pension reform and economic reform while problems of regulation within the system have also contributed to a lack of reform credibility.

A study was carried out on the Pension Reform Act 2004 and retirement planning in Nigeria [12]. The study used survey research design and a multi-stage random sampling technique to select the sample size of 3000 from the population of serving teachers and teacher pensioners in Federal and State Public Secondary Schools between the ages of 55 and 59 years. The results revealed that the objectives of PRA 2004 were yet to be achieved since retired persons still suffered trauma, pains and even death before they received their pension packages. The study recommended e-payment of pensions to ensure easy referencing, easy update and logistics of pension scheme system.

There was an examination of the Pension Reform Act 2004 and well-being of Nigerian retirees and the sociological evaluation of its provisions [7]. The study used the Marxist theory to analyze critically the 2004 pension policy of the government on the wellbeing of Nigerian retirees. The study finds that the PRA 2004 has failed to contribute to basic social security in old age for the majority of Nigerians employed in the informal sector while the minority of covered workers is likely to experience problems. The implication of the findings is that forced savings for the future in a low income country characterized by large scale poverty might not be desirable for retirees especially in Nigeria where there is inadequate complementary social security system.

The implications of the new pension reform for social security planning in the Local Government in Nigeria were examined [3]. The study employed the techniques of content analysis to analyze and interpret the views of several studies on the old and new pension scheme. The study finds that the advantages of PRA 2004 have translated into improved social security planning for the retired workers dead or alive and for their families to achieve a degree of economic security and provision of cash payments to help income lost as a result of retirement or death.

Included observations: 7

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9805.401	1277.737	7.674040	0.0016
PFA	-25.42277	6.796086	-3.740795	0.0201
PFS	235.1761	49.48621	4.752356	0.0090
R-squared	0.970414	Mean dependent var		20537.71
Adjusted R-squared	0.955621	S.D. dependent var		5680.388
S.E. of regression	1196.648	Akaike info criterion		17.30996
Sum squared resid	5727869.	Schwarz criterion		17.28678
Log likelihood	-57.58487	Hannan-Quinn criter.		17.02345
F-statistic	65.59961	Durbin-Watson stat		3.117346
Prob(F-statistic)	0.000875			

2.3 Challenges of Pension Reform Act 2004

2.3.1 Compliance level

Compliance by the employees and employers is a major challenge to the PRA 2004. There are no stringent measures put in place to ensure compliance by the informal sector which is believed to employ over 35 million Nigerians. Out of the estimated 51 million working population in both formal and informal sectors, only 3.89 million contributors representing 7.62% of the working population have complied with the scheme [14]. The implication is that the PRA deliberately created room for non-compliance to the scheme.

2.4 Dearth of Investment Outlets of Pension Funds

The objectives of the PRA 2004 restrict pension contribution held by the pension fund custodians and administered by pension fund administrators to limited categories of investment outlets. The sum of ₦2, 029.77billion represents the total savings contribution from employers and employees since 2010. Only 65% of this amount was invested in government securities, money market instruments and to a lower extent on equities [14]. The implication is that pension funds contributions are left un-invested and the consequence is that there will be diminution in income accruing to pensioners.

3. METHODOLOGY

3.1 Research Design

Expost- facto research design was adopted in the study since it involves events that have already taken place.

3.2 Research Model

The AK model production function is a special case of a Cobb-Douglas production function:

$$Y = AK^{\alpha}L^{1-\alpha}$$

This equation shows the Cobb-Douglas function where **Y** represents the total production in an economy. **A** represents total factor productivity, **K** is capital, **L** is labour, and the parameter **α** measures the output elasticity of capital. For special case in which **α** = 1, the production function becomes linear in capital thereby giving constant returns to scale [30].

Data were generated from secondary sources (CBN Statistical Bulletin, Pension Commission Annual Reports and Academic Journals). The study analyzed and interpreted the data generated using Ordinary Least Square technique. The sign and size of t-statistics was used to test significance of the variables. This technique was used to determine the impact of the contributory pension scheme on economic growth in Nigeria.

3.3 Discussion of Result

Data collected from Pension Commission annual reports and CBN Statistical bulletin were analyzed and presented as below. Ordinary Least Square Multiple Regression technique was used to determine the impact of contributory pension scheme on economic growth. We adopted the model that mathematically expressed economic growth as a function of financial structure.

$$Y_t = f(TFS_t) \quad (5)$$

Where Y_t = Economic Growth, TFS = Total Financial Structure, $_t$ = Time.

Our model specify thus:

GDP = f (PFA, PFS) (6)

Where, GDP = Gross Domestic Product (Economic Growth), PAF = Pension funds invested in specified investment outlets and PFS = Pension savings contributed by the private and public sectors in Nigeria.

3.4 Ordinary Least Square Result

To test the significance, we used the sign and size of the t-statistics. The t- value is -3.741 at 5% level of significance. It leads to a conclusion that the pension fund investments have negative and significant impact on economic growth in Nigeria. The implication of the finding is that the contributory pension scheme has generated long-term capital that contributed positively to economic growth in Nigeria. It is expected that with provision of more investment outlets, pension fund managers will diversify their investments which will boost economic growth.

To test for the significance of pension savings mobilized and economic growth in Nigeria, we used the sign and size of the statistics. The t-value is 4.752 at 5% level of significance. We conclude that pension savings mobilized over the years have positive and significant impact on economic growth. The implication of this finding is that the contributory pension scheme has been able to use the pension savings mobilized to boost capital market development and economic growth. It is expected that with increased level of compliance and coverage rate of the scheme, more savings would be mobilized and economic growth enhanced.

4. CONCLUSION

The pension fund assets investment in the specified asset classes has grown from N47 billion in 2004 to N2,029.77 billion while pension contributions from both private and public sectors has grown from N15.6 billion in 2004 to N289.91 billion in 2010. Using OLS Regression method, the study finds that pension funds has negative and significant impact on economic growth. The implication is that the objective of pension reform Act 2004 has been achieved in terms of using pension funds to provide long term capital to develop the financial market and promote economic growth in Nigeria.

The study also finds that pension savings contribution from both private and public sector has positive and significant impact on economic growth. It is expected that in future there will be greater compliance to the scheme by the private sector, informal sectors, states and local government. The expected increase in pension savings contributions would lead to greater investments of pension funds in more investment outlets that will promote economic growth in Nigeria.

5. RECOMMENDATIONS

The study recommends as follows:

i. To enhance pension saving mobilization, efforts should be intensified to encourage employers/ employees in informal, governmental and non-governmental sectors to participate actively in the contributory pension scheme.
ii. Government should provide low income earners with subsidies to their pension as a way of supplementing their self-funded defined contribution. This will encourage greater participation and savings contribution from low income earners in the informal sectors.
iii. There should be an increase in investment outlets of pension funds to ensure that investible pension funds are not limited to few investment classes which might lead to diminution of income.
iv. The Government should allow business owners and employees working in Micro, Small and Medium Enterprises (MSMEs) to participate in all these benefits. The Nigerian entrepreneurs and employees working in MSMEs with less than three employees should save towards retirement. The micro pension contributors can make daily, weekly or monthly payment into their pension account as they deem fit. 40% which would be regarded as the contingent

withdrawal would be accessible while the remaining 60% would be available at retirement, including the accrued investment income.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Edogbanya A. An assessment of the impact of contributory pension scheme to economic development. Global Journal of Management and Business Research. 2013;13(2):47-59.
2. Ahmad MK. The contributory pension scheme: institutional and legal frameworks. CBN Bullion. 2006;30(2):1-18.
3. Nnanta NE, Okoh CI, Ugwu CS. Implications of the new pension reform for social security planning in the Local Government. Arabian Journal of Business and Management Review. 2011;1(4):19-27.
4. Balogun A. Understanding the new pension reform Act (PRA, 2004). CBN Bullion. 2006;30(2): 19-32.
5. Dostal MJ. Pension reform in Nigeria five years on: Great leap or inappropriate policy design? Paper presented at 60th conference of Political Studies Association (PSA), University of Edinburgh, Scotland; 2010.
6. Odia JO, Okoye AE. Pension reform in Nigeria: A comparison between the old and new scheme. Afro Asian Journal of Social Sciences. 2012;3(3.1):1-17.
7. Olanrewaju EA. The pension reform Act 2004 and wellbeing of Nigerian retirees: A sociological evaluation of its provisions. International Journal of Humanities and Social Sciences. 2011; 1(21):315-325.
8. Pension Reform Act. Sections. Federal Government Press, Lagos. 2004;11(8):69-70.
9. Orifowomo OA. A critical appraisal of pension system reforms in Nigeria. Gonzaga Journal of International Law. 2006;10(2):165-200.
10. IMF. Selected issues and statistical appendix for Nigeria. IMF Country Report No. 05/303; 2005. Retrieved on 28/08/2012
    Available:www.imf.org
11. Gunu U, Tsado E. Contributory pension system as a tool for economic growth in Nigeria. International Journal of Business and Behavioural Sciences. 2012;2(8):6-13.
12. Nyong BC, Duze CO. The pension Reform Act 2004 and retirement planning in Nigeria. Journal of Economics and International Finance. 2011;3(2):109-115.
13. Eme OI, Sam CU. The law and administration of retirement in Nigeria: A historical approach. Kuwait Chapter of Arabian Journal of Business and Management Review. 2011;1(2):1-10.
14. BGL Pension Report. Situating Nigeria in the global pension Industry. A publication of BGL Group; 2010.
    Retrieved on 26/08/2012
    Available:www.bglplc.com
15. Pen Com. 2010 Annual Report & Statement of Account; 2010.
16. Njugana AC. Strategies to improve pension efficiency in Kenya, an Unpublished Ph. D Thesis of Nelson Mandela Metropolitan University, Port Elizabeth; 2010.
17. Leadway Pensure; 2014.
    Available: http://leadway-pensure.com/understanding-the- contributory-pension-scheme-in-nigeria/
18. Signing into Law; 2004.
    Available: https://www.pencom.gov.ng/category/about-us/signing- into-law/
19. Ogumike FO. Prospects and challenges of the 2004 Pension Reform Scheme in Nigeria, some lessons from the Chilean experience. CBN Bullion. 2008;3(2):37-46.
20. Romer PM. The origins of endogenous growth. The Journal of Economic Perspectives. 1994;8(1):3-22.
21. Kenneth Arrow. The economic implications of learning by doing. Review of Economic Studies; 1962.

22. Uzawa H. Optimum technical change in an aggregative model of economic growth. New Economic Thinking; 1965.
Hetwebsite net/het/profile/uzawa.htm
23. Sidrauski M. Inflation and economic growth. Journal of Political Economy. 1967;75(6):796-810.
24. Monetary Growth Theory; 2011.
Newschool.edu 2011
Archived from the original:
http://www.newschool.edu/nssr/het/essays/growth/moneygrowth.htm
Retrieved 11 October2011
25. Romer PM. Increasing returns and long-run growth. Journal of Political Economy. 1986;94: 1002-37.
26. Lucas RE. On the mechanics of economic development. Journal of Monetary Economics. 1988;22:3-42.
27. Sergio R. Long-run policy analysis and long-run growth. Journal of Political Economy. 1991; 99(3):500.
28. Carroll C. The Rebelo AK Growth Model; 2011.
Available:http://.econ2.jhu.edu/people/ccaroll/public/lecturenotes/Growth/RebeloAK.pdf) (PDF Econ2.jhu.edu
Retrieved 11 October 2011
29. Ortigueira S, Santos MS. On the speed of convergence in endogenous models. American Economic Review. 1997;87(3):383-399.
30. Barro RJ, Xavier S. Economic growth (2nd Ed). New York: McGraw-Hill; 2004.
ISBN 978-0-262-02553-9
31. Romer P. (1987, 1990). Endogenous growth theory, with significant contributions by Ahion and Howitt 1992) and Grossman and Helpman (1991)
En.wikipedia.org>wiki>Endogenous_growth_theory
32. Aghion P, Howitt P. A model of growth through creative destruction. Econometrica. 1992;60: 323-51.
33. Grossman GM, Helpman E. Innovation and growth in the global economy. Cambridge, MA: MIT Press; 1991.
34. Pagano M. Financial Market and Growth: An overview. European Economic Review. 1993;37: 613-622.
35. Frankel M. The production function in allocation and growth: a synthesis. American Economic Review. 1962;52:995-1022.

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