International Journal of Public Administration and Management Research (IJPAMR), Vol. 3, No 1, July, 2015. Website: http://www.rcmss.com. ISSN: 2350-2231 (Online) ISSN: 2346-7215 (Print)
Folorunso Adewumi, 2015, 3(1):1-9

EFFECTS OF PENSION REFORM ON HOUSEHOLD SAVINGS IN NIGERIA

Folorunso Adewumi
A Postgraduate Student of Economics,
University of Ilorin,
Kwara State, Nigeria
+234(0)7030342488
Email: adewumi236@gmail.com

Abstract

This paper investigates the effects of pension reform on household savings in Nigeria using primary data selected randomly from 182 households who have Retirement Savings Accounts (RSA) with Stanbic IBTC Pension Managers Limited through a structured, open-ended questionnaire .Using the Life-Cycle Hypothesis, the result shows that pension reform increased consumption and crowded out savings of workers. The study concluded that there is an inverse relationship between pension reform and households' savings in Nigeria, the implication of this is that since the introduction of the reform, households have been unable to save due to the effects of the reform on their disposable income. The findings are consistent with the Life-Cycle model prediction as the theoretical analysis shows that pension reform caused both income and wealth effect. The study suggest that the Nigerian government must consciously put in place policies to cushion the effects of the reform on the savings behaviour of household coupled with a restructuring of the contribution pattern so as to reduce the burden of the contribution on workers.
Keywords: pension, pension reform, household savings, life-cycle hypothesis, retirement savings accounts.

Introduction

The attainment of significant improvement in the welfare and standard of living of the people has been identified by experts as a core objective of development. Adebayo (2012) posited that the whole essence of governance is to advance the welfare of an increasing number of people. Indeed, the fundamental reason for the creation of a nation-state is to improve the living standards of the people. This makes development a principal national objective. Poverty has also been recognised as a major blemish in developing economies ever since economists began to take interest in the third world countries.

A major way of enhancing livelihood and standard of living of a society is by ensuring that workers in a society enjoy an appreciable level of welfare after retirement; such level of welfare should be able to make the workers be above the poverty line that is stated for the society. One of the crucial tools used in achieving the foregoing is the pension scheme. Pension and its reforms are increasingly becoming high on the policy agenda of many countries today.

The inadequacy according to Ogwumike (2008) of the defined benefit pension scheme also referred to as pay-as-you-go (PAYG) pension scheme made the Federal Government of Nigeria to embark on contributory pension reform scheme through the 2004 pension reform Act that tend to unify the features of the public service with those of the private sector in terms of rate of contribution to benefits, key players, and regulation .Furthermore, before 2004, the pension liability of the Federal Government of Nigeria was put at about three trillion naira (ARM 2004) which constitutes a huge proportion of the average national budget of the country in recent times (Ogwumike 2008).

The relationship between pension wealth and household savings is crucial for important policy issues such as establishing the effects of changes in pension reforms on savings behaviour. From a theoretical point of view, the life-cycle framework suggests that the provision of public benefits after retirements constitutes a negative incentive to accumulate resources during one's working life. Quantifying

the resulting relationship between pension wealth and savings even within a simple theoretical framework is difficult, however, as the degree of substitutability between pension and non-pension wealth depends on a number of factors, ranging from the presence of pension contributions on labour supply behaviour. The complexity of the problem makes it likely that quantification of the relationship between pension wealth and savings will be empirical rather than theoretical. Economic reasoning based on the life cycle model predicts that households respond to the implicit savings accumulated in their public and private pension plans by saving less in other forms. Thus, pensions displace or "crowd out" household saving. A large literature has used linear or quartile regression analysis to estimate the magnitude of such crowd out. The studies in this literature vary along many dimensions: time period, country, type of pension analysed, the age range of households and type of data used.
The most obvious of the problems of pension in Nigeria before the reform are as follows:

(i) Pension deficit of over two trillion naira;
(ii) Pensioners were not being paid entitlements regularly;
(iii) Existence of ghost pensioners in the public service;
(iv) Pensioners dying on verification queues;
(v)Unstructured and unfunded private sector schemes; and
(vi.) Diversion and mismanagement of existing pension fund by fund managers (Tedunjaiye 2007).
This also explains, in part why the existing pension scheme collapsed (Amoo 2008).

The foregoing scenario, among others, necessitated the need for policy reform of pension administration in Nigeria. Accordingly, the government initiated a pension reform (2004) in order to address and eliminate the problems associated with pension schemes. In order to properly conceptualize the research, the following questions shall be raised and answered:

(i) to what extent have these reforms been effective?
(ii) what could be the implication of these reforms on household savings?
The specific objectives of this study are to examine the:
(i) new pension scheme in Nigeria (2004) as against the old scheme; and
(ii) impact of the new pension reform on the trend of household savings in Nigeria.

Literature Review

(a) Pension and Pension Reforms

A pension is an arrangement to provide people with an income when they are no longer earning a regular income from employment. It is a tax-deferred savings vehicle that allows for the tax-free accumulation of a fund for later use as a retirement income (Schmidt-Hebbel 1999). The relationship between pension wealth and household savings is crucial for important policy issues, such as establishing the effect of changes in pension legislation on savings behaviour. From a theoretical point of view, the life-cycle framework suggests that the provision of public benefits after retirements constitutes a negative incentive to accumulate wealth during one's working life. Quantifying the resulting relationship between pension wealth and savings ,even within a simple theoretical framework is difficult, however, as the degree of substitutability between pension and non-pension wealth depends on a variety of factors, ranging from the presence of liquidity constraints that might be binding, to the importance of bequest motives, to the size of discount factors and rate of return, to the possibility of distortionary effects of pension contributions on labour supply behaviour(Attanasio and Rohwedder 2003).

The primary method for providing retirement support is contributory pension systems. Contributory pension systems are frequently described according to either the relevant financial mechanism or the benefit structure. Financial mechanisms are generally of two types: pay-as-you-go or fully funded mechanisms. In pay-as-you-go, current workers make contributions based on their current earnings. These contributions are immediately used for pay benefits for current recipients; the worker who is making the contribution only receives a promise from the government that it will pay benefits related to these contributions when the worker becomes eligible for a pension. In what is known as fully funded pension

systems, workers contributions are invested rather than spent and the investment earnings are an integral part of the benefits eventually paid. These investments can be managed by a monopolistic public agency or competitively, with participation by the private sector.

The World Bank in its 2008 Pension Systems and Reform conceptual framework did an assessment of the initial conditions that establish the motivation for and constraints on, feasible reforms options. Initial conditions included inherited systems, the reform needs of such systems and the enabling environment which may or may not be conducive to potential elements of a reform design and process.

Table 1: World Bank's Conceptual Framework

Initial Conditions	(i) Inherited System ➢ Elderly vulnerability and poverty prevalence in absolute terms and relative to other age groups. ➢ Existing mandatory and voluntary pension systems ➢ Existing social security systems ➢ Existing levels of family and country support (ii)Reform Needs-such as modifying existing scheme in the face of fiscal unsustainability, coverage gaps, aging and socio-economic changes assessed against the primary and secondary evaluation criteria below. (iii)Existing environment ➢ Demographic profile ➢ Macro economic environment ➢ Institutional capacity ➢ Financial market status
Core Objectives of Pension Systems	➢ Protection against the risk of poverty in old age ➢ Consumption smoothing from work to retirement
Modalities for Achieving Objectives	Zero pillar-non-contributory basic benefits financed by the state, fiscal conditions permitting. ➢ First pillar-mandatory with contributions linked to earnings and objective of replacing some portion of life-time pre-retirement income. ➢ Second pillar-mandatory defined contribution plan with independent investment management. ➢ Third pillar-voluntary taking many forms(e.g. individual savings ,employer-sponsored ,defined benefit or defined contribution) ➢ Fourth pillar-informal support (such as family)other formal social programs(such as health care or housing)and other individual assets(such as home ownership and reverse mortgage).
Primary Evaluation Criteria	Adequacy Sustainability Affordability Robustness Predictability Equity
Secondary Evaluation Criteria	➢ Contribution to output and growth through: ➢ Lowering labour market distortions. ➢ Contributions to savings. ➢ Contribution to financial market development.

Source: World Bank, 2008: Pension Systems and Reform Conceptual Framework

The policy framework flexibility applies a five-pillar model defining the range of elements that is summarized in the table above to determine the pension system reform options that should be considered.

(b) Household and Household Saving

A household is defined as a group sharing a common dwelling and related by blood or marriage. Household saving is defined as the difference between a household's disposable income (mainly wages received, revenue of the self-employed and net property income) and its consumption (expenditures on goods and services). The household savings rate is calculated by dividing household savings by household disposable income. A negative savings rate indicates that a household spends more than it receives as regular income and finances some of the expenditure through credit (increasing debt), through gains arising from the sale of assets (financial or non-financial), or by running down cash and deposits. Nations aggregate this data and report it on a regular basis. Since the early-to-mid-1990s, savings rates have been stable in some countries but have declined in others - in some cases sharply, including in Australia, Canada, Japan, Hungary, South Korea, the United Kingdom and the United States. With the great recession of 2007-2008 that trend reversed itself, and household saving rates increased in 2009 in many countries (Aridas 2011). Household savings rates can be measured on either a net or a gross basis. The net savings rate takes into consideration depreciation and is the figure most commonly used.

Theoretical Framework of the Nigerian Pension Reform

The inadequacy of the defined benefit pension system made the Nigerian government embark on comprehensive contributory Pension Reform Scheme in 2004. The Act tends to harmonize the features of the public service with that of the private sector in terms of contribution rate to benefits, key participants and regulators. The value of the pension liability of the Federal Government of Nigeria before the 2004 reform was around 2.3 trillion naira which constitutes a large proportion of average annual budget of Nigeria in recent years. The objective of the 2004 Nigerian Pension Reform which replaced the defined benefit scheme are as follows:

Ensures every person who has worked in the applicable sector receives retirement benefit (to reduce old age poverty).

Assist improvident individuals by ensuring that they save to cater for their old age (savings grows economy and deepens financial markets)

Establish a uniform set of rules, regulation and standards for administration and payments of retirement benefits in the applicable sectors.

Before the 2004 Pension Reforms in Nigeria, the defined benefits system of pension was facing the following challenges:

Pension deficit of about 2.3 trillion naira as at 2004,
Pensioners were not being paid entitlements regularly,
Existence of ghost pensioners in the public service,
Pensioners dying in verification queues,
Unstructured and unfunded private sector schemes,
Diversion and mismanagement of existing pension fund by the board of trustees and fund managers.

Under the Pension Reform Act 2004, no employee is entitled to make any withdrawal from its retirement savings account (RSA) before reaching the age of 50 years; any employee that is retired before the age of 50 years on the advice of a suitably qualified medical practitioner certifying that the employee is no longer mentally or physically capable of carrying out his duties, any employee that is retired before the age of 50 years due to permanent disability either of the mind or of the body, or any employee that retires before the age of 50 years in accordance with the terms and provision of his employment shall be entitled to make withdrawals in accordance with the following provisions:

A holder of a retirement savings account (RSA) upon a retirement or attaining the age of 50 years

shall be entitled to utilize the balance standing to the credit of his RSA for the following benefits:

(i) programmed monthly or quarterly withdrawals on the basis of an expected life span.

(ii) annuity for life purchased from a life insurance company licensed by the National Insurance Commission with monthly or quarterly payments; and

(iii) a lump sum of the balance standing in the credit of his RSA provided that the amount left after that lump sum withdrawal shall be sufficient to procure an annuity or fund programmed withdrawals that will produce an amount not less than 50 percent of his annual remuneration as at the date of his retirement.

(b) where an employee retires before the age of 50 years in accordance with the terms and condition of his employment, the employee may on request, withdraws on the lump sum of money not more than 25 percent of the amount standing in credit of his RSA provided that such withdrawals shall only be made after six months of such retirement and that the retired employee does not secure another employment (Ogwumike 2008)

The 2004 Nigerian Pension Reform has the following as the mechanics of the reform:

(i) Contributory: Mandatory minimum contribution of 7.5% by the employee and 7.5% by the employer of the employee’s salary, housing and transport allowances into individual retirement savings account (RSA) monthly. Employees may also make additional voluntary contributions to augment their retirement savings accounts and retirement benefits. The monthly contributions of 7.5% by the employee and that of the employer are remitted monthly to designated or appointed Pension Fund Custodians (PFCs).Pension Fund Custodian must notify the Pension Fund Administrator (PFA) appointed by the employer within 24 hours of contribution remittance.

(ii)Individual Accounts: Pension Fund Administrators (PFAs) issues a Personal Identification Number (PIN) to the employee, manages the employee’s account and contributions and credits the contribution of the employee into the Retirement Savings Account (RSA) monthly or as they are remitted by the employers. The Pension Fund Custodian (PFC), Pension Fund Administrators (PFAs) and employers’ activities are regulated and supervised by the National Pension Commission (PenCom).In addition to the above; the employer shall maintain a life insurance in favour of the retirement savings account (RSA) in the employee’s name with a Pension Fund Administrators (PFAs) of the employee’s choice. The PFA, who is to be strictly regulated, would be allowed to invest in government and corporate bonds, treasury bills, treasury certificates, debentures, redeemable preference shares issued by corporate entities, ordinary shares of companies listed on the Nigerian Stock Exchange, real estate and unit trust investment schemes.

(iii)Defined Contribution: The retirement benefits that would be received is a function of the contribution made over the employee’s working life, the investment returns earned on it and the withdrawal mode selected at retirement. Retirement benefits are therefore enhanced by aggressive contributions, quality investment management and prudent choices regarding withdrawal modes. As mentioned previously, the Act also allows for the continuation of hitherto existing defined benefits schemes subject to PenCom’s approval. However, employees may opt out of such approved DB Schemes and choose to participate in the DC Scheme.

(iv)Fully Funded: The schemes under the Act comprising the DC Schemes and approved DB Schemes must be fully funded at all times. For the DC Schemes, the monthly funding is done by the employer on behalf of itself and its employees.

(v)Privately Managed: The administration and custody of pension fund assets are vested in privately managed and licensed Pension Fund Administrators (PFAs) and Pension Fund Custodians (PFCs). The PFAs and PFCs must show competence in managing and holding custody of pension fund assets, prior to their licensing and are continuously regulated by PenCom in this regard.

Empirical Consideration of Pension Reform and Household Savings

The relationship between pension wealth and household savings is inconclusive in the literature. The life cycle model predicts that an increase in future pension wealth will be offset by a decline in individual savings. But in a general set-up more applicable to developing countries, both the sign and size of the

incentive from future pension entitlements to savings require more careful investigation. First if current generations feel altruistic towards their offspring, who will be financing the current payouts, the expansion of the social security system may lead to increased private savings to compensate for larger future contribution (Barro 1978). Second, credit market imperfection reduces the importance of the life-cycle motive for saving, as borrowing constraints limit the extent to which social security crowds out private savings (Diamond-Hausmann 1984; Dicks Mireaux-Kings 1984).A cross-sectional study in the United States by Kotlikoff (1979), Feldstein and Pellechio (1979) and Feldstein (1980) found this to be greater than 0.5.In contrast, a magnitude of less than 0.5 have been found by Munnell (1976) and Diamond and Hausman (1982) in the former study this was also true for private pensions. In one of the few studies using Canadian data, Boyle and Murray (1979) using aggregate time series data found no significant impact of social security on savings(Dicks-Mireaux and King 1982).One strand of this literature, which draws its inspiration from the endogenous growth models of Roemer (1989) and Lucas (1988) cited in Singh (1996) argues that financial intermediation, as well as the stock market, helps economic growth by (a) increasing the rate of investment and (b) improving the productivity of investments. The markets and the intermediaries carry out the functions of screening and monitoring investment projects, which individual investors on their own will find too uneconomic to undertake. These intermediary and market functions help diversify systemic risk and enable individuals to participate in investment projects which otherwise they may not have been willing to do. Thus, the economy experiences a higher rate of investment than would otherwise have been the case. Further, to the extent that the financial intermediaries (eg. Banks) directly, and the financial markets (through for example the take-over mechanism) are actually successful in carrying out these monitoring and screening tasks, this should lead to an increase in the marginal efficiency of investment.

Data Presentation and Analysis

The data used in the study was limited to those obtained through structured, open-ended questionnaire administered to 200 selected households who have retirement savings account with Stanbic IBTC Pension Managers Limited (SIPML). In order to have an unbiased selection of samples, the study adopted a simple random sampling method.

The result of the study shows that sixty-three percent (63.6%) of our respondents are male while about thirty-six percent (36.4%) are female implying that more men are in paid employment than female. The reason may be that men still dominate the affairs of the society and the incessant cry for gender equality by women is long overdue. About four percent (4.3%) of the respondents were primary school leavers while thirty-five percent (35.3%) were secondary school leavers and sixty percent (60.3%) were graduates. The above shows that most of our respondents are learned and literate because over 60% of them have at least tertiary education. For the age distribution of respondents, three percent (3.3%) of them are within the 18-40 years bracket while eleven percent (11.4%) are between 41-50 years bracket, twenty-six percent (26.1%) between the 51-64 years bracket and fifty-nine percent (59.2%) are above 65 years. The implication of this is that close to 60% of our respondents are retired or about to retire as it is assumed that the retirement age in Nigeria is 65 years and anybody above that age is assumed to have retired from active labour population. Only above two percent (2.7%) of our respondents are single with about eighty-five percent (85.9%) of them married and eleven percent (11.4%) widowed thus implying that majority of people in active labour force are married and few of them are widowed. In terms of experience, two percent (2.2%) of our respondents are below 5 years at work while three percent (3.3%) of them have between 6-10 years working experience, with about eleven percent (10.9%) of them within the 11-15 years bracket, sixty-two percent (62.5%) between the 16-20 years bracket while we have twenty-one percent (21.2%) above 20 years in service. This implies that majority of our respondents are middle-level managers who have spent half of their active working life in the organization where they work.

Estimation of Results and Analysis

The regression analysis of the parameters of the model are presented in table 1 below, describing pension reform as the regressand and disposable income, age of the disposable income, interest rate, unemployment rate, pension wealth and demographic characteristics of the household as regressors.The sign and significance of the coefficient indicate the direction of the regression. The multiple regression analysis is supposed to show whether the relationship between the regressor and the regressand are positive or negative and significant or not

Table 2: Regression Results

Dependent variable: Savings
Method: Least Square
Sample: 2004-2012
Included observations: 200
$S=1.038-0.102Y\delta-0.185Pew+0.051AY\delta+0.535Int-0.703Dec-0.461Uem+\mu$

Variable	Intercept	Disposable Income	Age of Disposable Income	Interest Rate	Unemployment	Pension Wealth	Demographic Characteristics of Household	
Coefficient	1.038 (0.081)*	0.102 (0.047)*	0.051 (0.076)*	0.535 (0.059)*	-0.461 (0.059)*	-0.185 (0.058*	0.703 (0.085)*	R^2=0.79 AdjR^2=0.79 F=113.98
P value	0.000	0.032	0.504	0.000	0.000	0.002	0.000	

Source: Compiled from SPSS 15 statistical software
Note: standard errors in parentheses below the coefficients
*significant at 5% level

The model shows a good fit since it has an R-square of about 79 per cent. At 5 per cent level of significance, the F-statistic shows that the model is useful in determining the influence of pension reform on household savings in Nigeria as the computed F-statistic which is 113.98 is greater than the tabulated F-statistic(6,24 degree of freedom) valued at 3.67.For individual variables, the coefficient and the associated t-values(at 5 per cent significance) showed that all the variables are positively related to pension reform thus validating our a priori expectations of the effect of the reform on household savings.

Discussion of Results

As it is observed from the results there exists a negative relationship between pension reform and disposable income, unemployment and pension wealth. The reason for this can be linked to the effect of the 7.5% being contributed by the employee to their retirement savings account as the amount is directly taken from their income before the net is paid to them coupled with the fact that pension reform is known to reduce unemployment due to its ability to create investible funds for long-term borrowing and infrastructural development .Also, the relationship between pension reform and interest rate, demographic characteristics of the household and age of the disposable income of the household are positive all because the introduction of pension reform has made cheap funds available for both short and long term borrowing and that the disposable income of the households has been growing since the inception of the reform. These growths in disposable income can be traced to the 2003 increase in wages of workers and the 18,000 naira minimum wages set by the government in 2010.These assertions thus conform with the observations of researchers like : Feldstein (1974, 1995) and Munnell (1974) using United States data, while Morling and Subbaraman (1995) and Connolly and Kohler (2004) using Australia data found that the existence of pension plans depress household savings hence the reason for saving behavior in our model. Also, Blau (2011) posits that economic reasoning based on life-cycle model predicts that households respond to implicit savings accumulated in their public and private pension plans by saving less in other forms. Thus,

pension savings is known to displace or ''crowd out'' household savings.

Summary of Findings, Conclusions and Recommendations

The Nigerian government in response to the plight of retirees and their families as evidenced by the failure of previous pension schemes in the country to guarantee retirement income introduced the defined contribution scheme in the country. With the passing into law of the new law in 2004, a new pension scheme came into force. This project analyses the effects of the new pension reform on household savings and consumption using household data.

The study concluded that there is an inverse relationship between pension reform and households savings in Nigeria, the implication of this is that since the introduction of the reform, households have been unable to save due to the effects of the reform on their disposable income because before the reform, households were not involved in contributing towards their pension but the reform made it mandatory for all workers to contribute a certain percentage of their income to their pension. This is despite the fact that there has been no significant increase in workers' salaries and allowances over time in Nigeria and no allowance was made for the effects of inflation on their income.

The results also confirm the findings of Feldstein (1974) who investigated the relationship between public pension wealth and household savings empirically using time series behavior of aggregate savings rate, with the result indicating a large negative effect of pension wealth on savings rate. They also affirm the basic prediction of the life-cycle hypothesis of a negative relationship between savings and pension wealth. In order to make the scheme more impactful and successful, the government must endeavor to ensure the reform is different from previous ones by putting in place strong institutional/regulatory framework to manage the scheme. The certainty of retirement income is very important to household savings and so cuts to the benefit rate that would reduce the social security wealth are likely to reduce the household savings rate and by implication the welfare of workers. The Nigerian government must consciously put in place policies to cushion the effects of the reform on the savings behavior of households. Since the introduction of the pension reform has negatively affected household savings, measures to ameliorate the untoward/negative effect have to be in place to further improve the living standard of Nigerians. The government needs to devise ways of channeling the retirement savings of over 4 trillion naira into long-term developmental project financing to enhance the standard of living of Nigerians. Though the intention of the reform was noble, the effect on savings has been adverse. There is also a need to restructure the contribution pattern so as to reduce the burden of the contribution on workers. The government would do well by reducing the employees' contribution to 5% while that of the employer should be increased to a minimum of 10%.

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