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# Solvency of Pension Reform: Issues and Challenges of the Accumulation Phase of Retirements in Nigeria

## REFORME DE PENSION DE LA SOLVABILITE: ENJEUX ET DEFIS DE LA PHASE D'ACCUMULATION DES DEPART A LA RETRAITE AU NIGERIA

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## Abstract

Objective: The valuation of pension reform was conducted with the primary purpose of determining its sustainability. Method: Compliance level among the participants was examined. In order to ascertain the accuracy of the data supplied by the respondents, their respective salary scales obtained from the payroll offices were used. Questionnaires were randomly distributed to workers in various units of the institutions discretionally chosen. The monthly rate of 2 percent used in the scheme valuation represents sanction imposed by the PenCom for any defaulter. Result: Evidence from the study suggests that the valued schemes are deficit as follows: private university, N254, 329, 938; Federal University, N1, 271, 649, 690. Conclusion: If the present trend of non-compliance by some employers is not intersected by the regulatory body in time, many contributors stand the risk of losing their funds as the scheme is not likely to be sustainable. We therefore recommend that the outstanding debts be paid without any further delay.

**Key words:** Solvency; Accumulation phase; Defined contribution; Pension scheme

## Résumé

Objectif: L'évaluation de la réforme des retraites a été réalisée avec le but principal de déterminer sa viabilité. Méthode: Niveau de conformité entre les participants a été examiné. Afin de s'assurer de l'exactitude des données fournies par les répondants, leurs échelles salariales respectives obtenues à partir des bureaux de paie ont été utilisés. Des questionnaires ont été distribués au hasard aux travailleurs dans les différentes unités de manière discrétionnaire des institutions choisies. Le taux mensuel de 2 pour cent utilisé dans l'évaluation schéma représente la sanction imposée par le PenCom pour tout défaillant. Résultat: résultats de l'étude suggère que les régimes sont évalués déficit comme suit: université privée, N254, 329 938; Université Fédérale, N1, 271.649.690. Conclusion: Si la tendance actuelle de non-respect par certains employeurs n'est pas coupé par l'organisme de réglementation dans le temps, de nombreux contributeurs se le risque de perdre leurs fonds que le régime n'est pas susceptible d'être durable. Nous recommandons donc que les dettes seront payées sans plus tarder.

**Mots clés:** Solvabilité; Phase d'accumulation; A définis les cotisations; Régime de pension

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## INTRODUCTION

The present pension reform was enacted into law in 2004 by the act of national assembly with the primary purpose of addressing pension crisis in Nigeria. In the reform, provisions were made for both defined benefits (DB) and defined contribution (DC). With DB plans, the employer bears the risk of retirement and benefits are typically made in the form of annuity: retirees receive periodic benefits for as long as they live (Baker *et al.*, 2005). In the DC plans, the employer does not carry the burden of investment and mortality. Instead, when a person retires, they get access to an investment account that has held funds on the person's behalf (Baker *et al.*, 2005). Adeyele (20011a) reveals that all employers of labour in Nigeria embraced DC in lieu of DB whereby employee and employer contribute a minimum of 7½ percent each to employee's Retirement Saving Account (RSA) monthly. Employers are mandated to deduct such contributions at source and within 7 working days remit such funds to the PFA chosen by employee. It was also stated in the reform that any employer and Pension Fund Administrators (PFA) – the fund managers in charge of pension funds, who do not abide by the provisions of the reform Act are to be penalized. Also employers who do not remit the deducted funds are to pay 2% increment of such funds.

As a way of increasing the system's transparency, all employees are enjoined to open a Retirement Saving Accounts (RSA) whereby their monthly contributions are to be credited. The Act also states that the benefits of any employee who had contributed certain amount for number of years would be entitled to a guaranteed minimum pension. However, the number of years and total contributions expected to be made into RSA (remains controversial as it has not been specified) appears to have been politicized since the regulatory body - National Pension Commission (hereafter, PenCom) has not taking a giant step towards forcing employers to comply and also limit the development of annuity through which accumulated funds are to be used by the retirees.

In order to assure the contributors the safety of their funds, the act empowered PenCom to penalize any defaulting employers and Pension Fund Administrators. This power conferred on the PenCom enable it to exercise its overall supervisory functions. The powers cannot in themselves stop any of the PFA and annuity providers from running into difficulties but they give the PenCom the ability to monitor the situation and step in before failure occur. However, the growing concern of the contributors is whether PenCom is in a position to discharge this responsibility effectively as many employers are not remitting amount deducted at source to the employees' RSAs as and when due.

Although when this reform was first implemented in 2004, it was applauded by many workers as a positive step towards eradication of the looming pension crisis in Nigeria. Right now, these workers' confidence is waning due to non-compliance by some employers. The Nigeria Labour Congress Chairman, Mr. Abdul-wahed in 2008 confirmed that "the confidence of many contributors is shaking because their statement of account do not reflect their contribution". Against this backdrops, it is important to draw the attention of PenCom to valuable lessons about failures of pension and life insurance industries in United States and United Kingdom. One of the major causes of the failures is weak monitoring as is currently being experienced in the Nigerian pension industry. Non-remittance of workers contributions has serious danger to workers' economic well being at retirement. For instance, what could strike them most due to lack of access to contributed funds at retirement would be the need to meet daily expenses and debts with no asset available to make these payments. No doubt, it would bring an untold hardship on the affected workers which would in turn usher in another "Time Bomb" --pension crisis. To avoid this potential catastrophe, the reform's solvency need be valued with the sole aim of safeguarding the contributors' funds.

## OVERVIEW

Around the world there have been a trend away from defined benefit towards defined contribution whereby individual builds up his/her own pension fund to provide an income during retirement (Cannon & Tonks, 2009). This type of scheme (DC) is typically compulsory, and funds are managed by private institutions such as PFAs and life insurance companies on which individuals may have little or no control. The shift from traditionally DB plans has left employees with pension benefits that are less sensitive to career but to asset returns fluctuations (Holmer, 2009). The magnitude of all the shift in pension offering implies that information about the pension benefits of current retirees are likely to accumulate over their work careers (Holmer, 2009). From the perspective of an individual worker or retiree, the important questions that this move to DC raise are: how is such a scheme likely to perform and how much risk is there in such a scheme?

Given the compulsory aspect of the system, it seems of crucial importance to think about the financial strategies available to retirees and determine the outstanding contribution not yet paid. It should be noted that the general goal of prudent pension fund management requires a solid and transparent governance framework which appears to be lacking in the present scheme. The G–10 (2005) reported that some of the challenges faced recently by occupational pension plans in some countries, such as limited attention to plan's liabilities and consistency of the investment strategy with those liabilities, are to some extent related to a deficit of pension. Weaknesses that have been identified by G-10 (2005) in some countries such as lack of clarity over the role of actuaries, auditors, and external assets managers have also characterized the present reform in Nigeria.

As earlier mentioned, the present scheme was introduced to address the problems of DB or the old-pay-as-go (PAYG) in public sector. This PAYG suffered from many problems like poor funding and funds misappropriation. Adeyele (2011b) remarks that the challenges confronting the present pension reform are similar to those that led to the collapse of the previous contributory system that existed between 1970s and 1993 for the private sector. The study extensively analyzed some controversies surrounding the present reform. In this study, we build on these controversies by evaluating the solvency of the scheme and the risk the contributors are exposed to.

## MATERIALS AND METHOD

### Data Collection

Four organisations including 2 Federal universities with over 2000 senior staff each, 1 state university with over 300 employees, 1 multinational company with over 466 employees and 1 private university with over 420 permanent staff were initially selected. Because staff of the multinational company and one of the Federal universities reported that their respective organisations comply with the provisions of the pension reform act 2004 and found to be solvent they were not considered further for valuation exercise. However, the valuation of 1 private university and 1 Federal university considered in this study was performed. Also, some Pension Fund Administrators were randomly interviewed on how the scheme is being presently administered in order to determine the solvency of the schemes. Some of the workers in these organisations were requested of their pay slips to confirm how their monthly contributions are being deducted at source and asked whether they are as well regularly credited to their RSAs. Employee's socio-demographic factors were also used. The rate of 2 percent used to value the scheme solvency is the monthly increment for each default by the employers. The total number of questionnaires returned is 52 out of 80. The average monthly contributions (level premium) and number of months are respectively N7278.56 per person and 37 months. We used these figures to calculate the outstanding balances per person (see Table 6, for instance). The figure arrived at was then used to estimate the deficits.

Also, we develop simple annuity model ($S_n$) free of mortality to calculate the accumulated value of the unpaid deductions. We derive an expression as an equation of value of a payment $S_n$ at the end of the nth year. The accumulated value of a payment of 1 at the end of the first year is $(1+i)^{n-1}$. The accumulated value of a payment of 1 at the end of the nth years is just 1. Therefore the total accumulated value, $S_n$, must equal the sum of the accumulated value of each payment i.e

$$s_{\bar{n}} = 1 + (1+i)^1 + (1+i)^2 + (1+i)^3 + \ldots + (1+i)^{n-1} \quad (3.1)$$

$$s_{\bar{n}} = \{(1+i)^n - 1\} / \{(1+i) - 1\}$$

$$s_{\bar{n}} = \{(1+i)^n - 1\} / i \quad (3.2)$$

## RESULTS

Table1 shows the number of organisations included in the research. The participants were interviewed concerning how their contributed funds are remitted. We established that only the multinational company examined has complied with the provisions of pension reform Act 2004. That is, employees' and employers' monthly deductions are paid to the custodian of PFAs' nominated by employees as soon as salaries are paid. We also find out that the state and Federal universities remit the employees' monthly deductions made from the source to the PFAs' custodian. However, it was gathered that employer's contributions are not equally paid in to the PFAs' custodians.

As regards the private university, the management of the sampled organisation introduced rules for its staff on how to qualify for the employer's contributions. The respondents to this research revealed that employee must have spent at least three years before he/she has legal right to the employers' contributions. This contravene the pension Act 2004 which states that employee has legal right to his/her contributed funds and that of employer on assumption of duty. The respondents also revealed that some of the staff members who have left the organisation for over two years have not been able to access the amount deducted from their salaries as well as that of the employers'.

In table 2, it can be seen that most employees (about 55.77%) of the valued schemes patronise IBTC, follow by Crusader Sterling (19.23%), while about 17.30% of the employees have no or are yet to have pension fund administrators. The table also shows the performance of each PFA by employees' rating. As shown in this table, more than 30 percent of the employees have general reservation about their PFAs. Although we can conclude that the PFAs are rated fairly good: fair; 28.85%, good; 28.85%. (see Table 2). More than 71% of employees (both of those who rated PenCom's performance poor and those that declined comments) have blamed PenCom for weak monitoring (Table 3). Although about 42.31% of the employees agreed that their current employers' performance is fair, more than 86% said the monthly contributions were not remitted to their RSAs as and when due (Table 4 and Table 5). As a result, most employees (86%) do not make additional contributions to their RSAs because of the uncertainty surrounding the remittance.

## DISCUSSION

For every employee, the employer is indebted to the tune of N423,883.23. If this figure is multiplied by 52 persons, the total debt will be N22, 041, 927.96. This is just 8.67% of employees being assessed (i.e 52/600) in private university. In the course of our valuation exercise, 10 persons out of the 52 respondents (19.23%) represents Federal university workers. The remaining 80.77% constitutes private university workers. Because most employees for this research came from private university, we focus our cost implication on the 600 estimated workers in private university. Consequently, the scheme in private university is deficit to the tune of N254, 329, 938. If there is no quick intervention by the PenCom for this outstanding debt to be paid, it will become an unsustainable burden for the employer. As a result, the contributors stand the risk of losing their contributions. The previous pension schemes which was deficit to the tune of over N2 trillion naira in June, 2004 suffered from the same effect.

## CONCLUSION

We have devoted attentions to the valuation of present pension reform schemes. The valuation result shows that the present scheme is gradually becoming insolvent, and is heading towards the part that brought about the collapse of the previous schemes (National Provident Funds) that existed between 1970s and the 1990s. Adeyele (2011b) reveals that those schemes did not only fail for the want of non remittance of the contributed funds to the employees' retirement saving accounts but the inability of the then regulatory body to quickly step in to safeguard the contributors interest. On the balance of probabilities, we have been able to establish in this study that the section 11(5) of the present pension reform dealing with remittance of contribution has been grossly breached by most employers and the regulators. Although the regulators do claimed to be unaware of such non compliance since affected employees have not reported such incidence to them. The PenCom must rise up to this challenge and institute adequate mechanism for compelling the employers to comply with pension reform's provisions. If PenCom fails to perform the function it was empowered to do, the new pension reform will be in jeopardy. Adeyele (2011b) revealed that PenCom is not efficient because of its dual role -- as the industry administrator and the regulator of pension industry. This suggests that there should be clear demarcation on the role of PenCom. As a regulator of a highly technical industry, PenCom must be run with the highest professional standards in all aspect of its operations. As multitude of works heads towards retirement nest daily, the policymakers and the regulators must urgently resolve the pending issues of non compliance, if a future pension crisis is to be avoided.

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**Table 1**
**Remittance of Monthly Contribution to Employee and Employers to Custodian of PFA Nominated by Employees**

| Institutions | Estimated number of employees | Employees' contribution regularly remitted | Employers' contribution regularly remitted | Mode of remittance by employers |
|---|---|---|---|---|
| Private University | 600 (17.83%) | No | No | In arrears* |
| State University | 300 (8.91%) | Yes | No | In arrears** |
| Public University | 3000 (59.42%) | Yes | No | In arrears** |
| Multinational Company | 466 (13.84%) | Yes | Yes | As soon as salaries are paid |
| Total | 3366 (100%) | | | |

**Source**: Field Survey, 2012
*Employee is not entitled to employer's contribution until after three years of service.
**Employer's contribution is remitted in arrears with no reasonable timescale specified.

**Table 2**
**Pension Fund Administrators' Rating by Employees**

| PFA Name | Poor | Fair | Good | No Response | Total |
|---|---|---|---|---|---|
| IBTC | 5 | 8 | 8 | 8 | 29 (55.77%) |
| Crusader Sterling | 1 | 4 | 4 | 1 | 10 (19.23%) |
| LeadWay | 0 | 0 | 1 | 2 | 3 (5.77%) |
| ARM | 0 | 0 | 1 | 0 | 1 (1.92%) |
| None | 0 | 3 | 1 | 5 | 9 (17.30%) |
| Total | 6 (11.54%) | 15(28.85%) | 15(28.85%) | 16 (30.76%) | 52 |

**Source**: Field Survey, 2012

**Table 3**
**Pension Commission's Rating by Employees**

| | | Poor | Fair | Good | No Response | Total |
|---|---|---|---|---|---|---|
| Staff Grouping | Junior Staff | 2 | 0 | 1 | 2 | 5 |
| | Senior Staff (Non-Academic) | 6 | 4 | 2 | 4 | 16 |
| | Academic | 11 | 4 | 4 | 11 | 30 |
| | 5 | 1 | 0 | 0 | 0 | 1 |
| | Total | 20(38.46%) | 8(15.38%) | 7(13.46) | 17(32.69) | 52 |

**Source**: Field Survey, 2012

**Table 4**
**Employers' Rating by Employees**

| | | Poor | Fair | Good | No Response | Total |
|---|---|---|---|---|---|---|
| Staff Grouping | Junior Staff | 0 | 1 | 2 | 2 | 5 |
| | Senior Staff (Non-Academic) | 5 | 9 | 1 | 1 | 16 |
| | Academic | 10 | 12 | 4 | 4 | 30 |
| | 5 | 1 | 0 | 0 | 0 | 1 |
| Total | | 16(30.77%) | 22(42.31%) | 7(13.46%) | 7(13.46%) | 52 |

**Source**: Field Survey, 2012

**Table 5**
**Employee Contribution Remittance**

| | Frequency | Percent | Cumulative Percent |
|---|---|---|---|
| Regular | 5 | 9.61 | 9.61 |
| Not Regular | 45 | 86.54 | 96.15 |
| Don't know | 2 | 3.85 | 100 |
| Total | 52 | 100 | |

**Source**: Field Survey, 2012

**Table 6**
**Outstanding Contributed Funds not yet Remitted to the PFA by Employer**

| Duration | Level premium | $(1+i)^n$ | $(1+i)^n$ -1 | I | $\{(1+i)^n – 1\} /i$ | Accumulated value |
|---|---|---|---|---|---|---|
| 1 | 7278.56 | 1.02 | 0.02 | 0.02 | 1 | 7278.56 |
| 2 | 7278.56 | 1.0404 | 0.0404 | 0.02 | 2.02 | 14702.69 |
| 3 | 7278.56 | 1.061208 | 0.061208 | 0.02 | 3.06 | 22275.31 |
| 4 | 7278.56 | 1.08243216 | 0.082432 | 0.02 | 4.12 | 29999.37 |
| 5 | 7278.56 | 1.104080803 | 0.104081 | 0.02 | 5.2 | 37877.92 |
| 6 | 7278.56 | 1.126162419 | 0.126162 | 0.02 | 6.31 | 45914.04 |
| 7 | 7278.56 | 1.148685668 | 0.148686 | 0.02 | 7.43 | 54110.88 |
| 8 | 7278.56 | 1.171659381 | 0.171659 | 0.02 | 8.58 | 62471.66 |
| 9 | 7278.56 | 1.195092569 | 0.195093 | 0.02 | 9.75 | 70999.65 |
| 10 | 7278.56 | 1.21899442 | 0.218994 | 0.02 | 10.9 | 79698.20 |
| 11 | 7278.56 | 1.243374308 | 0.243374 | 0.02 | 12.2 | 88570.73 |
| 12 | 7278.56 | 1.268241795 | 0.268242 | 0.02 | 13.4 | 97620.70 |
| 13 | 7278.56 | 1.29360663 | 0.293607 | 0.02 | 14.7 | 106851.67 |
| 14 | 7278.56 | 1.319478763 | 0.319479 | 0.02 | 16 | 116267.27 |
| 15 | 7278.56 | 1.345868338 | 0.345868 | 0.02 | 17.3 | 125871.17 |
| 16 | 7278.56 | 1.372785705 | 0.372786 | 0.02 | 18.6 | 135667.16 |
| 17 | 7278.56 | 1.400241419 | 0.400241 | 0.02 | 20 | 145659.06 |
| 18 | 7278.56 | 1.428246248 | 0.428246 | 0.02 | 21.4 | 155850.80 |
| 19 | 7278.56 | 1.456811173 | 0.456811 | 0.02 | 22.8 | 166246.38 |
| 20 | 7278.56 | 1.485947396 | 0.485947 | 0.02 | 24.3 | 176849.86 |
| 21 | 7278.56 | 1.515666344 | 0.515666 | 0.02 | 25.8 | 187665.42 |
| 22 | 7278.56 | 1.545979671 | 0.54598 | 0.02 | 27.3 | 198697.29 |
| 23 | 7278.56 | 1.576899264 | 0.576899 | 0.02 | 28.8 | 209949.80 |
| 24 | 7278.56 | 1.608437249 | 0.608437 | 0.02 | 30.4 | 221427.35 |
| 25 | 7278.56 | 1.640605994 | 0.640606 | 0.02 | 32 | 233134.46 |
| 26 | 7278.56 | 1.673418114 | 0.673418 | 0.02 | 33.7 | 245075.71 |
| 27 | 7278.56 | 1.706886477 | 0.706886 | 0.02 | 35.3 | 257255.78 |
| 28 | 7278.56 | 1.741024206 | 0.741024 | 0.02 | 37.1 | 269679.46 |
| 29 | 7278.56 | 1.77584469 | 0.775845 | 0.02 | 38.8 | 282351.61 |
| 30 | 7278.56 | 1.811361584 | 0.811362 | 0.02 | 40.6 | 295277.20 |
| 31 | 7278.56 | 1.847588816 | 0.847589 | 0.02 | 42.4 | 308461.30 |
| 32 | 7278.56 | 1.884540592 | 0.884541 | 0.02 | 44.2 | 321909.09 |
| 33 | 7278.56 | 1.922231404 | 0.922231 | 0.02 | 46.1 | 335625.83 |
| 34 | 7278.56 | 1.960676032 | 0.960676 | 0.02 | 48 | 349616.91 |
| 35 | 7278.56 | 1.999889553 | 0.99989 | 0.02 | 50 | 363887.81 |
| 36 | 7278.56 | 2.039887344 | 1.039887 | 0.02 | 52 | 378444.12 |
| 37 | 7278.56 | 2.080685091 | 1.080685 | 0.02 | 54 | 393291.56 |
| 38 | 7278.56 | 2.122298792 | 1.122299 | 0.02 | 56.1 | 408435.95 |
| 39 | 7278.56 | 2.164744768 | 1.164745 | 0.02 | 58.2 | 423883.23 |

**Source**: Field Survey, 2012