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A Critical Review of the Exponential Growth in Pension Liabilities and their Unsustainable Nature: Concerns, Difficulties and Potential Solutions

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***Abstract*:** Pension signifies periodic expenditures granted by the government to those who have ceased working, as well as to their close relatives. This mechanism functions as a societal safeguard in nations that have welfare states. However, pension obligations have become a significant challenge for governing bodies worldwide, requiring careful management due to their increasing size and economic consequences. The purpose of this review article is to analyze and address the challenges faced by the Government of Khyber Pakhtunkhwa (GoKP) in efficiently managing the growing pension responsibilities. The issue of pension liabilities requires the attention of policy makers and the implementation of robust reform agendas to ensure the long-term viability of pension payments. The pension system for civil servants in Pakistan is completely non-contributory, underfunded, and currently suffering from a concerning lack of management. Within the Government of Khyber Pakhtunkhwa (GoKP), the pension obligations have surged by a factor of 7 over the previous decade, escalating from 11 billion rupees in the fiscal year 2010-2011 to 92 billion rupees in the fiscal year 2021-2022. The Government of Khyber Pakhtunkhwa (GoKP) provides retirement benefits to its civil officials through four schemes: Defined Benefit Pension, General Provident Fund (GPF), Retirement Benefit and Death Compensation (RBDC), and Benevolent Fund. The main aim of this study is to clarify the proposed model. The proposed measure seeks to reduce the length of time during which individual retirees and their families receive pension benefits from 40 years to 15 years. The objective is to reduce the pension liability of the Defined Benefit scheme by 2063-64, rather than 2087-88, by the implementation of the proposed parametric adjustments. To address the impending pension issue in Pakistan, it is crucial for the government to expeditiously enforce remedial actions. The government should consider the findings of this research study in order to efficiently handle the burden of the current DB scheme and promptly reap the benefits of introducing a DC system for new employees. It has been concluded that the shift from a defined benefit to a defined contribution system would only be feasible for newly hired employees.

Keywords: Defined Benefits, Defined Contribution, GoKP's, Pension fund, Pension liabilities

1. Introduction

The exponential growth of pension liabilities and their inherent lack of long-term sustainability pose a substantial challenge for various states and institutions worldwide. This situation arises from a combination of factors, including increased life expectancy, inadequate funding, economic challenges, and changing demography. Pension denotes periodic disbursements granted by the government to those who have ceased working, as well as their close dependents. This system functions as a social safety net in nations that value the welfare of its inhabitants. However, pension liabilities have become a significant challenge for authority's worldwide, requiring careful management due to their increasing size and economic consequences. It is expected that the deficit in pension financing would increase in the future due to factors such as increased life expectancy, insufficient personal savings, and high retirement income expectations (Miller, 2019).

The issue of pension liabilities requires the attention of policy makers and the implementation of substantial reform measures to ensure the long-term sustainability of pension payments. Despite the challenges involved, it is the responsibility of governments to offer adequate social protection for their citizens, especially for those who have dedicated their professional lives to public service. Through the planned development and implementation of reforms, authorities can successfully mitigate the negative consequences of pension liabilities and ensure that pensioners receive their entitled payments. The Government Pension System in Pakistan is designed only for public sector personnel employed in government institutions, including the Pakistan Armed Forces, Provincial Civil Servants, and Federal Civil Servants. The pension system for civil servants in Pakistan is completely non-contributory, unfunded, and undergoing unmanageable expansion. During the last ten years, pension liabilities have grown six times, whereas consolidated tax receipts have only grown 2.7 times (Khizar, 2020). During the last ten years, the percentage of taxes designated for pension expenses has risen from 9% to 21%.

In the past 10 years, the pension liability of the Government of Khyber Pakhtunkhwa (GoKP) has climbed sevenfold, going from 11 billion rupees in FY 2010-2011 to 92 billion rupees in FY 2021-2022 (GoKP, WHITE PAPER 2015-2016, 2015-2016). During the last ten years, the percentage of the provincial budget has risen from 3% to 12%. It is crucial to highlight that this 12% obligation is disbursed to 0.17 million individuals (pensioners) out of a population of 36 million in the province. Pensioners constitute a mere 2% of the province's population, although they represent a significant 12% of the province's total budget expenditure. Considering the consistent nature of pension laws throughout the country, it can be deduced that the requirements, concerns, obstacles, and potential solutions discussed in this study, using data from GoKP, will also apply to other provinces with slight differences. The Khyber Pakhtunkhwa Government (GoKP) provides retirement benefits to its civil personnel through four schemes, namely:

2. Define Benefit Pension (35% onetime commutation and 65% Monthly Benefits)

In Pakistan, a "Benefit Pension" is a specific pension program that grants retirement benefits to qualified persons according to a pre-established formula or set of criteria. A pension plan is a structured program where the amount of money a retired person receives as a pension is calculated based on characteristics such as their tenure of employment, historical wage information, and the sum of their contributions made over their working years. Pakistan has instituted numerous pension schemes to offer retirement benefits to its employees and eligible persons. The following schemes are included:

2.1 The Federal Government Pension Scheme

The Federal Government Pension Scheme encompasses federal government employees, civil servants, military personnel, and other individuals employed in federal agencies and organizations. The pension amount is calculated using a formula that considers variables such as tenure, mean salary, and contribution rates. Pakistan maintains separate pension schemes for its employees in each province, known as Provincial Pension Schemes. These plans bear resemblances to the federal government scheme and offer retirement benefits that are determined by characteristics including as tenure, salary history, and province-specific contribution rates. The Employees' Old-Age Benefits Institution (EOBI) is a federal organization that offers retirement benefits to those working in the private sector and other qualifying individuals. The pension program adheres to the regulations outlined in the Employees' Old-Age Benefits Act of 1976. The pension amount is calculated using a formula that takes into account variables such as wages, age, and years of contributions.

2.2 General Provident Fund (GPF) (One time Benefits)

The General Provident Fund (GPF) in Pakistan is a dedicated savings scheme tailored for government employees to amass funds for their post-employment period. An employee-funded contributory fund is established, whereby employees make recurring deductions from their compensation. The accumulated contributions, along with the accumulated interest, form a common pool of assets that is distributed as a single payment or a series of regular payments upon reaching retirement age. The General Provident Fund in Pakistan is distinguished by its notable traits, which include:

2.2.1 Eligibility
The Government Provident Fund (GPF) is available to those who are employed by the government, including civil servants, military personnel, and employees of autonomous bodies and government-owned enterprises.

2.2.2 Employee Contributions
A portion of employees' salary is designated for the Government Provident Fund (GPF). The contribution rate is typically a fixed percentage of the base pay and is deducted from the employee's monthly earnings.

2.2.3 Employer Contributions
At times, the employer (government) may offer matching contributions to the GPF on behalf of the employee. The employer's payments may vary according on the unique laws and regulations of the employing organization.

2.2.4 Capital Accumulation
Employees' contributions, along with accumulated interest, are deposited into individual GPF accounts. The funds accumulate over the employee's period of employment, earning interest through the process of compounding.

2.2.5 Upon Retirement
Upon retirement employees have the option to receive the entirety of their accumulated funds in the General Provident Fund (GPF) either as a lump sum payout or as a pension distributed under an annuity plan. The withdrawal and retirement benefits are contingent upon the employing employer and the applicable pension legislation, and may vary accordingly.

2.2.6 Interest Rate
The interest rate on GPF deposits is determined by the government and is typically altered on a yearly basis. The interest rate is variable and can be impacted by prevailing economic conditions.

2.3 Retirement Benefit and Death Compensation (RBDC)
Government employees in Pakistan are entitled to retirement benefits and death compensation as part of their job contract. The objective of these benefits is to provide financial aid to employees upon their retirement or in the unfortunate event of their death. Below are many instances of retirement benefits and death compensation offered in Pakistan?

2.3.1 Retirement Benefits

2.3.1.1. Pension
Individuals employed in government positions, including civil servants, military personnel, and autonomous body employees, often get a pension upon attaining the age of retirement. The pension amount is calculated based on factors such as length of service, average pay, and contribution rates. A pension is a regular monthly allowance provided to a retired individual to serve as a financial means during their post-employment years.

2.3.1.2 Commutation
Commutation refers to the act of transforming a portion of the pension into a lump sum payment. In Pakistan, retired individuals have the option to convert a portion of their pension into a single, large payment, which usually represents a fraction of the total pension amount. The deducted amount is subtracted from the monthly pension payments for a specified period of time.

2.3.1.3. Gratuity

Gratuity is a lump sum payment provided to retiring employees as a token of appreciation for their service. The amount of gratuity is calculated based on factors such as the length of service and the last salary.

2.3.2 Death Compensation

2.3.2.1 Family/Dependent Pension

If a government employee dies, their qualified family members or dependents may be entitled to receive a pension. The pension amount is often determined as a percentage of the deceased employee's most recent salary and is designed to support the financial needs of the family members.

2.3.2.2 Group Insurance

Government personnel may qualify for enrollment in a group insurance scheme, which provides a lump sum payment to the employee's family or dependents in the event of the employee's demise. The insurance coverage and payout can vary depending on the specific insurance policy and the limitations set by the employing company.

2.3.3 Benevolent Fund (One Time Benefits)

The Benevolent Fund in Pakistan is a welfare program that provides cash support, grants, and further assistance to government employees and their families during times of need, such as when they are ill, disabled, or in the event of death. The initiative aims to alleviate financial hardships and provide social support to employees and their family. Illustrations of the Benevolent Fund in Pakistan encompass:

2.3.3.1 Objectives

The primary goal of the Benevolent Fund is to provide financial support and assistance to government staff and their families during periods of difficulty or extraordinary circumstances. The goal is to improve their well-being, ensure social security, and offer aid in difficult situations.

2.3.3.2 Eligibility

Membership in the Benevolent Fund is often available to government employees, such as civil servants, military personnel, and employees of autonomous institutions. Usually, participation is mandatory, and employees contribute a small portion of their monthly salaries to the fund.

2.3.3.3 Financial Assistance

The Benevolent Fund provides various forms of monetary support to its members. These gifts cover cash aid for medical treatment, education, wedding costs, property refurbishments, and funeral expenses. The scope and magnitude of financial assistance offered may vary depending on the regulations and protocols established by the Benevolent Fund in each province or employing organization.

2.3.3.4 Scholarships and Education Support

The Benevolent Fund has the ability to grant scholarships and offer educational aid to the children of government employees. This includes financial assistance for educational expenses such as tuition fees, textbooks, and other associated costs.

2.3.3.5 Funeral Grant

In the event of a government employee's death, the Benevolent Fund may provide a financial grant to help cover the expenses associated with the funeral. The award amount is contingent upon the fluctuation of the regulations and criteria established by the Benevolent Fund.

2.3.3.6 Supplementary Support Services

In addition to providing financial assistance, the Benevolent Fund may offer other support services such as counseling, guidance, and referrals to other agencies or institutions for specialized assistance. Beneficiaries contribute the entire 100% amount to the Benevolent Fund, RBDC, and GPF schemes, whereas the Pension benefits are completely without funding. The pension benefits are calculated at the time of retirement using a predetermined method that involves multiplying the individual's final basic wage by the duration of their service, and then multiplying that result by the fraction 7/300. This computation results in the total pension amount. The tax-free annuity consists of 65% of the gross pension, known as the net pension, as well as 20% of the net pension provided as a medical allowance and compounded cost of living allowances (applicable at that precise time). The government converts 35% of the entire pension amount into a lump sum payment, called commutation, using a formula for the commutation age rate.

Mark Dorfman presents the definitive resolution to the pension predicament faced by the Government of Khyber Pakhtunkhwa (GoKP) in the Pakistan Assessment of Civil Servant Pensions (2020). This approach entails the process of shifting newly enrolled individuals from the Defined Benefit (DB) system to the Defined Contribution (DC) system. In addition, certain modifications will be implemented for current Pension Beneficiaries to decrease the financial obligation in the DB System. The main aim of this review study is to clarify the portion of the review article that offers the proposed model. The proposed measure aims to reduce the length of time during which pension payments are made to both individual retirees and their dependents, from 40 years to 15 years. In addition, it aims to progressively reduce the pension obligation of the Defined Benefit plan by the fiscal year 2063-64, as opposed to 2087-88 if the proposed parametric adjustments are not implemented.

2.4 Problem Statement

Thorough research has concluded that implementing a pension system based on defined contributions can effectively resolve the problem of pension systems that are too expensive to sustain. According to the Mercer Global Pension Index (Knox, 2022), over 65% of countries worldwide, such as the US, Canada, UK, China, India, Germany, Japan, Norway, and others, have already implemented this specific scheme. It is imperative to underscore that the transition from a defined benefit to a defined contribution plan wouldexclusively pertain to newly recruited personnel. The funds generated under a defined contribution program require a longer period of time for accumulation compared to present employees. Therefore, if the new scheme is solely applied to new employees, the current scheme will continue to operate simultaneously, intensifying the burden on the pension system. To ensure the success of the new scheme, it may be necessary to gradually phase out the old scheme and accelerate the efficacy of the defined contribution plan by implementing a corrective measure.

2.5 Scope of the Study

This research focuses on solving the specific challenges faced by the Government of Khyber Pakhtunkhwa (GoKP) in efficiently managing the growing pension responsibilities. The task would involve examining the current pension system and its economic consequences, identifying issues and barriers, and proposing tactics to guarantee the sustainable future of the pension system. The research primarily analyzes the Pension system offered by the GoKP, namely the Defined Benefit Pension, and puts forward suggestions to guarantee that the pension plan is adequate, long-lasting, and fair for both employees and employers.

3. Research Methodology

The main aim of this research study is to analyze the Defined Benefit Pension system used by the KP and provide suggestions for its improvement. In order to do this, it is important to undertake an examination of the current regulations, procedures, and legislation that oversee the pension system. The key objectives of this assessment are to evaluate the adequacy, durability, and equity of the system, and to provide recommendations for enhancing these aspects. The paper provides a valuable addition to policy analysis via its recommendations for improvements and analysis of existing policies.

For the objective of assessing the Defined Benefit Pension system and the Defined Contribution System of KP and making suggestions for their development, a combination of qualitative and quantitative research approaches was considered to be an effective study strategy. This method incorporates a substantial volume of research articles, government studies, and policy materials that specifically address defined benefit pension systems, pension plan adequacy, sustainability, and fairness.

3.1 Data Collection

The data collecting method included gathering information pertaining to the Defined Benefit Pension system used by KP. To do this, it may be important to get official documents, financial statements, actuarial studies, and personnel records that are linked to the pension scheme. We evaluate quantitative data, including pension fund payments, pension fund payouts, pension fund performance, and demographic information of pension plan participants. Furthermore, the study used qualitative data obtained from workers, employers, pension plan managers, and subject matter experts.

4. The Issues and Challenges

4.1 Unfunded Pension Scheme

An unfunded pension scheme, also known as a pay-as-you-go pension scheme, is a retirement benefit plan where the pension obligations are not fully covered in advance. This program is based on the concept of intergenerational solidarity, whereby the current financial contributions made by employed individuals are used to support the pensions of retired individuals. It is expected that future generations of workers will contribute to funding the pensions of the current contributors after they retire.

Pakistan presently possesses a deficiently financed defined benefit pension scheme. The civil personnel in the Government of Khyber Pakhtunkhwa (GoKP) are obligated to adhere to the unfunded defined benefit pension scheme outlined in the Pension Rules 2006 until June 2022. An actuarial analysis conducted by the Government of Khyber Pakhtunkhwa in 2020 revealed that the unfunded defined benefit pension scheme had accumulated a total liability of Rs.2.9 trillion as of June 2020, owed to both current employees and pensioners (Associate, 2020). The burden of this obligation places a significant pressure on the government's resources, and the rate at which it is growing remains a worry for policymakers. However, implementing reforms in the pension system has been challenging due to political and bureaucratic hurdles.

4.2 Liberalized Pension Rules

According to the data from GoKP retirees, there is a substantial surplus of retiring employees compared to the minimum number of pensioners involved in the pension system on an annual basis. The main reason for this is the lack of pension termination, which is due to the strict eligibility criteria for family pension as stated in the 2006 pension rule. This criterion enables the spread over a period of 3 generations. The average tenure of employees is approximately 30 years, but the period of their post-retirement pension benefits often surpasses 40 years. The West Pakistan Civil Services Pension Rules, which are in effect in the Khyber Pakhtunkhwa Province, were established in 1955.

Over the last forty years, the Rules have undergone many modifications, gradually relaxing the restrictions to accommodate a larger group of relatives, including widowed or divorced daughters and sisters, mothers, dads, brothers, and daughters-in-law. The Government of Khyber Pakhtunkhwa (GoKP) made changes to its pension legislation in 2021, which led to a decrease in the pension hierarchy to level 4 (Department, 2021). Consequently, the length of the pension period has been reduced. Nevertheless, there are also weaknesses, such as the eligibility of daughters who have lost their husbands, which requires the resumption of discontinued pensions with outstanding payments. If a widow's daughter is barred from the pension hierarchy due to an obscure technical process, as outlined in the recommendation, resolving the matter of pension reopening will be feasible. Nevertheless, the political leadership will have significant difficulties in adopting this plan.

4.3 Early Retirement

Retirement within the GoKP is generally divided into two common types: superannuation retirement, which occurs when an employee reaches the age of 60, and premature or voluntary retirement, which happens after an individual has completed 25 years of service. The revised pension regulations of 2021 (Department, 2021) stipulate that persons must be a minimum of 55 years old and have at least 25 years of qualifying service in order to retire voluntarily. Individuals who have not completed 25 years of service but have reached the age of 55 are eligible for retirement. The objective of this alteration was to discourage voluntary retirement. However, there is still a significant probability that employees will resign when they turn 55, which presents a challenge.

4.4 High Placement Rate

The term "replacement rate" refers to the percentage of a retiree's pre-retirement income that is replaced by their pension benefits. The replacement rates demonstrate variations across many countries. The replacement rates vary among different countries. In India, the percentage is 45%, in Canada it is 47.7%, in the US it is 40%, in the UK it is 25%, in Japan it is 50%, in Australia it is 27%, and in Germany it is 48% (Affairs, 2020).

Pakistan has a replacement rate of 105%, as reported by Associate (2020), which surpasses those of other countries. By transitioning from calculating pensions based on final wage to average wage, the replacement rate in the Government of Khyber Pakhtunkhwa (GoKP) and in Pakistan can be reduced. Nevertheless, this alteration may lead to disparities among retirees, as individuals who resign subsequent to the enforcement of these regulations will receive diminished pensions in comparison to those who retired shortly before.

5. Conclusion

To address the impending pension issue in Pakistan, it is crucial for the government to expeditiously enact remedial actions. The government should consider the findings of this research study in order to efficiently administer the current DB scheme and promptly reap the benefits of adopting a DC system for new employees.

5.1 Proposed Model/Recommendation

The data set used for the proposed model is genuine and obtained from the financial department of the Government of Khyber Pakhtunkhwa. The analysis recommends the use of the proposed methodology, which seeks to mitigate the expansion of pension liability. Over time, this model will shift the responsibility of expensive pension obligations from the government to a system that is both sustainable and adaptable, ultimately benefiting all parties involved. In order to slow down the growth of pensions and achieve a balance between the amount of money coming in and going out, it is recommended that significant changes be made to the pension legislation. Here, I will offer a few suggestions:

5.2 Decline in Familial Hierarchy

The existing pension legislation, which grants family benefits to three successive generations, ought to be reevaluated with the aim of restricting them just to immediate family members, including the spouse, son, and unmarried daughter. This idea, developed in GoKP, can be suggested to other provinces since it has the potential to substantially reduce the length of time for pension payments. However, the matter regarding the inheritance rights of the widow's daughter remains unsolved. To address this issue, a potential solution is to incorporate a clause into the pension regulations stating that a terminated pension can only be reestablished within a period of five years. Reopening of such cases will not be considered once the time restriction has expired. To address the problem of reopening the pension, one could exclude the widow daughter from the pension hierarchy by the implementation of this technical procedure.

5.3 Encouraging Postponed Retirement

In order to qualify for early retirement, employees must have accumulated a minimum of 25 years of service and must also satisfy a minimum age requirement of 55 years. The purpose of this approach is to discourage persons from choosing voluntary retirement and instead encourage an augmentation of the superannuation pension. According to the existing pension regulations (2006), an employee has the choice to retire at any age once they have completed 25 years of qualifying service. However, the suggested approach only allows for retirement after an individual reaches the age of 60 or beyond.

The Government of Khyber Pakhtunkhwa (GoKP) had previously amended the pension legislation to prohibit persons from choosing voluntary retirement. However, other measures could be taken to discourage persons from choosing voluntary retirement. For instance, employees who opt for early retirement before the age of 60 may face a fee, whilst those who retire at the official retirement age may receive a reward. Enforcing these procedures would offer employees compelling motivations to stay employed for longer durations, thus reducing the burden on government resources generated by the pension scheme.

Implementing the aforementioned recommendation can reduce the average duration of individual pension from 40 years to 15 years. This promptly addresses the present problem. For instance, if a person chooses to retire at the age of 60, considering the average life expectancy in Pakistan and the weakening of family support, they or their family may qualify for a pension for up to 15 years. However, if the aforementioned ideas are not implemented, the length could potentially be extended to 40 years, as stated by the Government of Khyber Pakhtunkhwa Pension Rules of 2006. A Defined Contribution Scheme is a retirement plan where an individual deposits a certain sum of money into their account, and the ultimate retirement payout is contingent upon the performance of the investments made using that money. Once the previously announced parametric reforms are put into effect. This will result in a decrease in the expenditure rate of pension funds for the existing Defined Benefit Pension Scheme. The discrepancy between employees enrolling in the pension system and those leaving due to pension termination will be greatly reduced.

It is advisable to establish a retirement plan that is fully funded and involves active participation from new members, while also conforming to international standards. The introduction of the DC Pension Scheme, however, will not produce instant results. Undoubtedly, this will lead to an extended duration of heightened fiscal obligation for the government, as it will necessitate additional financing channels to support the employer's share of the DC Pension Scheme for employees. A highly effective approach for the government would be to reduce the length of the retirement time for individuals in the Defined Benefit Pension Scheme. Additionally, investigate other approaches to produce supplementary revenue to meet the original financial responsibility of the DC Scheme. An effective strategy is to implement a modest deduction (varying from 0.5% to 1% of Basic Pay) from current employees and create a contingency Pension Fund. Subsequently, this fund might be delegated to proficient Fund Managers who will strategically invest it to provide earnings. The Fund can be employed to rectify the shortcomings in revenue. Offer employees with fewer than 5 years of tenure in the traditional defined benefit (DB) pension plan the opportunity to transition to a defined contribution (DC) plan. This will expedite the process of discontinuing the DB pension system.

5.4 Expenses Related to the Suggested DC Scheme

A Defined contribution scheme is distinguished by the collaborative participation of both the employee and the firm. The Khyber Pakhtunkhwa Government (GoKP) has previously implemented a comparable initiative for its newly hired personnel. Under this scheme, a deduction of 10% is made from the employee's current basic pay, and the Government provides a matching grant of 12%. What will be the fiscal consequences of the government's 12% initial payment on employees' pensions? If not addressed proactively, the expense for the employees will accumulate over time, resulting in a far higher burden for the Government.The employer's contribution of 12% towards CPF (DC) for a BPS-12 officer, aggregated over a period of 30 years, would result in a liability of 3.8 million. After a span of 30 years, the value of these 3.8 million will escalate to 13 million. If the identical individual were to retire after a period of 30 years, adhering to the pension calculations of the previous defined benefit (DB) system, the lump sum payment he would receive would amount to 8.7 million, while his monthly pension would be 1.5 million. This suggests that a sum of 130 lac would adequately cover both the transportation costs and the monthly pension of the retiree for a duration of 3 years. Typically, a retiree's monthly pension lasts for at least 15 years on average. Therefore, without implementing the DC system, the government will bear the cost of providing monthly pensions for an additional 12 years per pensioner.

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