PENSIONS

PIDE Working Papers
No. 2023:9

PIDE
Pakistan Institute of Development Economics

Fiscally Sustainable Pensions in Pakistan

Mahmood Khalid
Naseem Faraz
Aisha Irum

Editorial Committee
Idrees Khawaja
Saman Nazir
Shahid Mehmood

Disclaimer: Copyrights to this PIDE Working Paper remain with the author(s). The author(s) may publish the paper, in part or whole, in any journal of their choice.

Pakistan Institute of Development Economics
Islamabad, Pakistan

E-mail: publications@pide.org.pk
Website: http://www.pide.org.pk
Fax: +92-51-9248065

Designed, composed, and finished at the Publications Division, PIDE.

PIDE Working Papers
No. 2023:9

Fiscally Sustainable Pensions in Pakistan

Mahmood Khalid
Pakistan Institute of Development Economics, Islamabad.

Naseem Faraz
Ministry of Finance, Islamabad.

and

Aisha Irum
Pakistan Institute of Development Economics, Islamabad.

PAKISTAN INSTITUTE OF DEVELOPMENT ECONOMICS
ISLAMABAD
2023

C O N T E N T S

		Pages
	Abstract	v
1.	**Introduction**	1
2.	**Structure of Pension System in Pakistan**	2
	2.1. Classification of Pension	3
	2.2. Rate and scale of Pension	3
	2.3. Commutation of Pensions	3
	2.4. Other Pension Related Benefits to Civil Servant	3
3.	**Best Practices/Lessons of Reforms from Rest of the World**	5
	3.1. United States; the Blended Retirement System	5
	3.2. Turkey: Ordu Yardimlaşma Kurumu (Oyak)	6
	3.3. Malaysia: Lembaga Tabung Angkatan Tentera (LTAT)	6
4.	**Pensions Landscape in Pakistan**	7
	4.1. Pension Scenario of Federal Government and Military	8
	4.2. Provincial Pensions	9
5.	**Federal and Provincial Pension Systems—Sustainability Challenge**	17
	5.1. Steps taken for Pension Reforms	19
6.	**Projections for Sustainable Pensions**	20
	6.1. Moving from an unfunded Defined Benefit (DB) or to a Fully Funded Defined Contribution (DC) System	20
	6.2. Following Pillars based approach of World Bank	25
7.	**Conclusion**	25
	References	26

List of Tables

Table 1.	Scenario I: Defined Contribution Funded by Government at the Rate of 15%	21
Table 2.	Scenario II: Defined Contribution Funded by Government at the Rate of 20%	22
Table 3.	Scenario III: Defined Contribution Funded by Government at the Rate of 20%	23

Pages

List of Figures

Figure 1. Percentage Share of Pensions in Total Current Expenditure 2

Figure 2. Pension Shares in Total Pension Expenditures (1029 billion PKR), 2019-20 7

Figure 3. Pension Shares in Total Pension Expenditures (1656 billion PKR), 2021-22 8

Figure 4. Shares in Federal Pension Expenditure (in billion Rupees) 8

Figure 5. Provincial Pension Expenditure as a % age of Federal Pension Expenditure 9

Figure 6. Pension Expenditure in Khyber Pukhtunkhwa 10

Figure 7. Hierarchy of Pension Eligible Family Members in KP 11

Figure 8. Pensioners' Age Curve in KP 11

Figure 9. Share of Punjab Pension Expenditure in Current Revenue Expenditure (in billion PKR) 13

Figure 10. Punjab Pensions as %age of Current Revenue Expenditure and Revenue Receipts 13

Figure 11. Punjab Pension/Salary Vs Inflation 14

Figure 12. Pension/Inflation Scenario in Sindh 15

Figure 13. % age Change in Pension Expenditure in Sindh 15

Figure 14. Total Expenditure on Pensions in Sindh (in billion PKR) 16

Figure 15. Balochistan Pension Expenditure (in billion PKR) 17

Figure 16. Number of Pensioners (as % age of Employees) in Punjab 19

Figure 17. Scenario I-Defined Contribution Funded by Government at the Rate of 15% 24

Figure 18. Scenario II-Defined Contribution Funded by Government at the Rate of 20% 24

Figure 19. Scenario III-Defined Contribution Funded by Government at the Rate of 25% 25

ABSTRACT

Public sector employment remains an attraction for important reasons of job security and a guaranteed pension. The evaluation of alternate pension systems has gained importance among policymakers who are concerned about the aging population and rising poverty levels. Pakistan has a Pay-As-You-Go type pension system, which is financed by taxpayers' money and it has resulted in building up of unfunded liability for the government. The expenditures on superannuation are voted and gradually coming into mainstream discussions on fiscal sustainability and public finance management. The additional expenditure liabilities requires an increase in future taxes to be solvent. Focusing on the scenario-based projections, this study highlights how the existing pensions system is fiscally unsustainable, and what approaches are needed to make it sustainable.

JEL Classification: H3, E620

Keywords: Fiscal Policy, Public Economics, Public Finance, Tax Induced, Pensions

1. INTRODUCTION

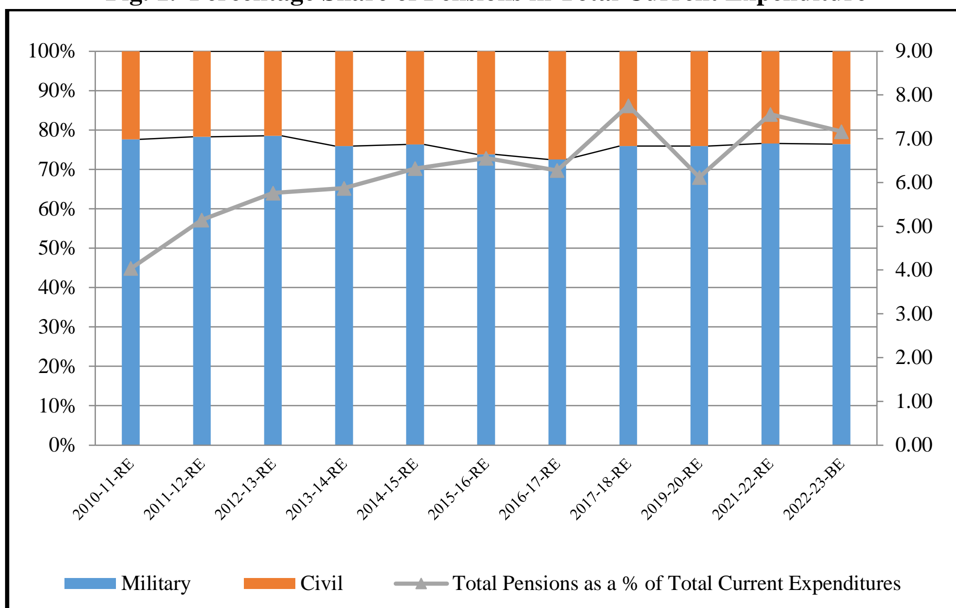
Public sector employment remains an attraction for important reasons: job security and a guaranteed pension (Dixit, 2002). Most of the countries around the world have pension systems, intended to provide income support to those persons who have lost earnings either due to old age or disability due to some incident. Each pension scheme must result into adequate resource provision to meet the basic living standards and ensure that the gap between pre and post retirement earnings is minimum. This would help pensioners live a decent life. As ability to earn significantly reduces in post superannuation age. However, the responsibility for either forced savings or contribution by employers (including civil governments) depends on the type of pension scheme. Some argue that it's either the sole responsibility of the individual through voluntary savings, the family through family support or the State which can create institutions as per need and sustainability of resources. However due to changing demographics in terms of an ageing population, weaker family support, increased health services and higher expected lives have created a need for policy response to be dynamic.

The evaluation of alternate pension systems has gained importance among the policy makers who are concerned about the increase in ageing population and rising poverty levels. Countries like Pakistan, face tight fiscal position in the presence of hovering pension liabilities. The Article-38 of the constitution of Islamic Republic of Pakistan 1973, pertains to "*Promotion of Social and Economic wellbeing of the people*". This article has seven sub clauses and in each clause it is mentioned that the state shall take measures to secure the well-being of its people, provide all the citizens with the opportunities of work and adequate livelihood with reasonable rest and leisure, provide basic necessities of life such as food, clothing, housing, education and medical relief for all such citizens etc. The sub-article (C) states: "*provide for all persons employed in the service of Pakistan or otherwise, social security by compulsory social insurance or other means*."

The same notion has been repeated in various Civil Service Reform Commissions as well; e.g. in the NCGR-2015 one of the broad principles for reforms included "Grant of a living wage and compensation package, including decent retirement benefits to all civil servants". However, provision of such post-retirement facility needs a system based on sound financial appraisals taking into account the fiscal sustainability. Because any weakness in such program may result in outcomes which are undesirable. For instance, increasing the pension bill was cited as one of the reasons for governments moving towards contractual appointments (Chief Secretary Punjab stated and reported in NCGR Vol-II).

Pakistan has a Pay-As-You-Go type pension system, which is financed by tax payers' money and it has resulted in building up of an unfunded liability for the government. Except for few departments rest of the expenditures on superannuation are voted and gradually coming into mainstream discussions on fiscal sustainability and public financial management. This requires increase in future taxes to be solvent. Pension has also never been counted in the total cost towards employees because of its non-contributory nature.

Fig. 1. Percentage Share of Pensions in Total Current Expenditure



Share of pensions as a percentage of current expenditures is increasing overtime (for FY 2019-20 it stood around 6 percent and for 2022-23 it was more than 7 percent). However, the cost is becoming enormous and taking away resources available for other important services such as economic growth; for example, in the fiscal year 2018-19 federal superannuation and pension expenditures were almost 78 percent of the value for PSDP expenditures (392,870 and 502,065 million Rupees respectively). Being a perpetual fiscal deficit economy, opportunity cost in terms of such pensions is significant and increasing. Therefore, a careful analysis is required for suggesting reforms which can secure employees' rights as well as adhere to fiscal sustainability. The cost for pension financing is increasing due to longevity, increasing health costs and liberal reforms overtime. One of the major shares is from military pensions which is about 80 percent of the total pension.

The existing pension system of Pakistan is being managed by federal government, provincial governments, armed forces of Pakistan, autonomous bodies and EOBI with almost no participation from the private sector. Ideally complete pension system needs to be studied and suitable proposals should be extended but for this study we will focus only on the federal civil pensions to initiate with the debate on the need and ways for reforms.

2. STRUCTURE OF PENSION SYSTEM IN PAKISTAN

For the first time in the history of Pakistan the pension was introduced through an act called "the Governor-general's Pension Act, 1954. This act was made to make provision for the payment of a pension to persons who have held the office of Governor General of Pakistan. With the passage of time the original scheme was amended from time to time and the current pension system is defined by the revised edition-2006 of "A manual of Pension Procedures" published first in 1999.

2.1. Classification of Pension

- *2.1.1* *Compensation Pension:* It is provided in case of abolition of a permanent post.
- *2.1.2* *Invalid Pension:* If a civil servant is permanently incapacitated for the public service due to a bodily or mental infirmity.
- *2.1.3* *Family Pension:* Family Pension is granted to the family of a Government servant who dies before retirement.
- *2.1.4* *Superannuation Pension:* A superannuation pension is granted to a Government servant who is entitled or compelled, by rule to retire at a particular age.
- *2.1.5* *Retiring Pension:* Granted to a Government servant who is permitted to retire after completing qualifying service of 25 years.

2.2. Rate and Scale of Pension

The section 13 and 19 of Civil Servant Act 1973 provides clause about the pension and gratuity to a civil servant. It states that a civil servant would be eligible for pension at the completion of 20th year of service (minimum vesting period) and maximum by the superannuation age of 60th year of his/her service. Pension is calculated at the rate of 70 percent (Replacement Ratio) of last pay drawn. Besides this there are separate rules for invalid pensions and pension by death (whether before or after retirement, his/her family shall be entitled to receive such pension, or gratuity, or both, as may be prescribed). For servants opting to retire before the 20th year but have more than 10 years of service are eligible for 1/4th of the gross pension or a Gratuity amount. For servants opting to retire before completing 10 years of service but have more than 5 year of service are eligible for Gratuity only. In case of Invalid pension minimum condition of Ten years of qualifying service is waived. In case of family pension 75 percent of the Gross Pension is provided for life to the widow.

2.3. Commutation of Pensions

Pensioners are allowed to commute upto 35 percent of their gross pension at the time of pension issuance using the commutation tables provided. Further this commutation of pension is restored once the period for commutation is over for pensioners of all type.

2.4. Other Pension Related Benefits to Civil Servant

2.4.1. *Benevolent Fund and Group Insurance*

Federal Government established a fund and procured group insurance for its employees. This act is called as "[Federal] Employees Benevolent Fund and Group Insurance Act, 1969 (Act No. II of 1969) (Amended upto December, 2010)" By this Act a Benevolent Fund is established for the common benefit of the employees of the Federal Government and certain autonomous bodies and to provide for their group insurance. It extends to the whole of Pakistan and applies to every employee wherever he may be.

2.4.1.1. *Benevolent Fund*

This fund is credited by contributions from the existing employees as subscription to the Benevolent Fund, grants made by the Federal Government, autonomous bodies,

organisations, institutions or other authorities; donations made by private individuals or institutions; all income, profits or interest accruing from the assets belonging to the Benevolent Fund or from investments made out of the moneys of the Fund; and loans raised by the Board with the previous approval of the Federal Government.

2.4.1.2. ***Benevolent Grants to be Paid from the Benevolent Fund***

It includes an emolument provided to Invalid pensioners, to family pensioners in case of death during service or if a pensioner dies before attaining the age of sixty-five years. The Board may, where it considers expedient and keeping in view the availability of funds after discharging its liability under this Act, make schemes for disbursement of any amount for the benefit of employees, including retired employees and their families. It includes grants for marriages, educational stipends to dependent children, farewell grants at retirement and burial charges.

2.4.1.3. ***Group Insurance***

In the event of the death of an employee, occurring by whatsoever cause, during the continuance of his employment, the Board shall pay to the family of the deceased employee a sum as may be prescribed through arrangements with Insurance Company, etc. Presently for minimum sum assured range from Rs.350000 to Rs 1000000. A separate Federal Employees Insurance Fund is created where premium from existing employees is credited. Any sum which remains after payment to the insurance company may be utilised for such purposes connected with the benefit of the employees including retired employees, and their families as the Board may direct.

2.4.2. ***Health Facilities at Government Expense***

Retired government servants are entitled to medical treatment (both indoor and outdoor) at government expense at par with the facility available to the serving government servants. They are also allowed facility of reimbursement of medical charges for which rules have been liberalised, i.e. medicine expenditure on about 15 types of chronic diseases would be reimbursed. The list of the disease also includes those for which generally insurance companies either avoid or be expensive, such as all expenditure related to dental problems. Besides this a medical grant @31.25 percent and @25 percent of the net of commutation pension is admissible for pensioners of all type in BPS 1-15 and BPS 16-22 respectively. Minimum of the allowance is set at Rs.1200 per month for all grades.

2.4.3. ***General Provident Fund Scheme***

Government servants are required to contribute to General Provident Fund on prescribed rates (i.e. BPS 1 @3 percent BPS 2-11 @5 percent BPS 8-22 @8 percent of basic pay). Against their credit in the trust fund annual return is paid on rate determined considering the government borrowing rates for that year. From this fund they have the facility to get an advance refundable in instalments from their pay. Facility of a non-refundable advance to the extent of 80 percent of their balance in the fund is also available to them on attaining the age of 45 years and 100 percent on attaining the age of 50 and 55 years. The balance amount at the time of retirement is paid to him along with any interest

accrued thereon however, an option is available to a government servant as to whether he wants to receive interest on the amount contributed by him or not. In case he opts not to receive interest, he is given the facility of interest free house building/conveyance advances.

3. BEST PRACTICES/LESSONS OF REFORMS FROM REST OF THE WORLD

This section discusses the best practiced tailor made solutions in several countries. The following sections provide an insight on several different methods and pension schemes.

3.1. United States; the Blended Retirement System

The term "blending" in Blended Retirement System," refers to the combination of two significant sources of retirement income: an existing annuity provision for people who retire after 20 years or more of service, as well as the returns to a Thrift Savings Plan (TSP) (Asch, Mattock, & Hosek, 2019). All members are automatically registered in TSP after 60 days in the service and receive a monthly government contribution of 1 percent of basic pay into their account. This 1 percent donation is automatic; you do not have to provide any money of your own to get it. Members are also automatically enrolled to contribute 3 percent of their monthly out-of-pocket basic pay to the TSP (they can change or stop this at any time). If a member contributes merely 3 percent of their basic wage to the TSP, the government will match that payment, and so on. Even if a member has the capacity to contribute a higher percentage of their basic pay to the TSP, say 10 percent, the government will only contribute a maximum of 5 percent of the member's basic pay. The nicest thing about having a TSP contribution is that it benefits individuals who don't stay in the military long enough to receive a pension. According to the government, 83 percent of people who join the military do not remain long enough to be eligible for retirement, so when they leave after 5 or 10 years of service, they receive nothing toward their future retirement. While military members who contribute to the TSP can leave the service at any time and have a pre-existing retirement fund that they can take with them wherever they go. Even if they leave the service before completing 20 years, the money in their TSP fund will be kept. To save taxes, that money can be left in the TSP, withdrawn out, or transferred to another retirement fund. As an additional incentive to keep military soldiers in the service until they achieve the 20-year mark and qualify for monthly military retirement pay, BRS provides a mid-career continuation pay at around 12 years of service. Blended Retirement System is made up of 4 specific components:

3.1.1. *Defined Benefit*

If a military personnel retires at 20 years of service, he/she will get of 40 percent of his/her final basic pay. Similarly, if he/she retires at 30 years of service he/she will get 60 percent of his/her final basic pay. It means the benefit is twice the number of years of service. The military personnel can either get his/her full retirement pension when eligible or opt to get a lump-sum benefit at retirement. If he/she opts for the lump-sum, he/she will get a reduced monthly retirement cheque until the age of 67.

3.1.2. *Defined Contribution*

The military will contribute 1 percent of military personnel's base pay to his/her TSP, even if he/she doesn't put any of his/her own money in. He/She will be automatically enrolled with a 3 percent base pay contribution to his/her TSP (it can be changed at any time). The military will match up to a maximum of 5 percent of the personnel's contribution after 2 years of service. He/She can always stop contributing to the TSP, get a loan of his/her TSP balance, or withdraw his/her money from the TSP account.

3.1.3. *Continuation Pay*

When the military personnel reaches 12 years of service and commits to 4 more years of service, he/she will be eligible for a cash incentive of 2.5 to 13 times his/her regular monthly basic pay if he/she is on active duty and 0.5 to 6 times of his/her monthly basic pay if he/she is in the reserves.

3.1.4. *Choice of Lump Sum Payment*

If he/she takes a lump sum payment, it will be discounted to allow for inflation. If he/she takes the lump sum payment, his/her monthly retirement benefits (and survivor's benefits) will be reduced.

3.2. Turkey: Ordu Yardimlaşma Kurumu (Oyak)

OYAK is a legal construct that is subject to civil law regulations. It includes members of the Turkish Armed Forces, the General Command of the Gendarmerie, the Command of the Coast Guard, and workers who choose to join on their own initiative, including civilians as defined by the Law. OYAK offers members with "supplementary retirement benefits". While OYAK offers pension benefits, pensions, and death and disability benefits to its members in accordance with the law, it also offers housing, loans, the Donation-Based Retirement Income System (BDEGS), and the Housing Savings Fund (KBF) to its members. With the largest number of members and contributions and services to members, OYAK sets an example for the creation of other supplemental occupational pension funds in Turkey, and offers an extra contribution to its members independent of the Social Security Institution (Yaşar, Hekim, Hazır, Bayören, & Kepenek Bozkırlıoğlu, 2019).

OYAK is a key participant in a variety of industries, including iron, steel, and cement manufacture, automobile manufacturing, construction, mining, energy, finance, chemicals, logistics services, and seaport management. Cement factories owned by the fund also contribute significantly to the national economy. OYAK's 60 enterprises, which operate in 21 countries, employ over 32,000 people. OYAK's entire economic worth was projected to be $25 billion in 2015, with exports of $4.7 billion in 2018. While OYAK's entire income reached 73 billion TL and its total assets reached 157 billion TL in the 2020 consolidated results, it alone realised 2.5 percent of Turkey's total exports with a total export of 4.3 billion USD. All of this data demonstrates that OYAK is more than just a credit union for Turkish military people; it is also a large, influential, and profitable corporation in the Turkish economy.

3.3. Malaysia: Lembaga Tabung Angkatan Tentera (LTAT)

The Malaysian pension system contains a variety of distinct institutions that falls into five broad categories, largely servicing various constituencies: a tax funded defined benefit (DB) pension scheme for public servants, a defined contribution (DC) scheme for

armed forces personnel, a publically run (DC) retirement scheme for private sector employees, and a privately run DC scheme open to all (Hussein, 2019).

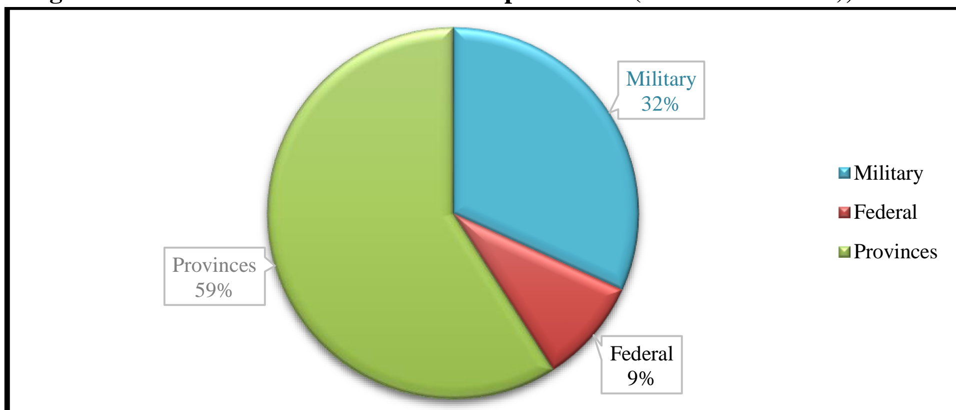
LTAT has two primary goals. The first major goal is to give retirement and other benefits to members of the other ranks in the armed forces (compulsory contributors), as well as to allow officers and Mobilised Members of the Volunteer Forces in the military to join in a savings program. Contributors to the LTAT plan are expected to contribute 10 percent of their monthly wage, with the government as the employer contributing 15 percent. Contributions for volunteer contributors start at RM25 and may go up to RM2000 per month. The involvement of officers in the fund is optional, with no payment to their accounts made by the Malaysian government. Other ranks of the armed services (compulsory contributors) are compelled to contribute a percentage of their monthly wage to LTAT, with the government contributing as the employer. When an obligatory non-pensionable contributor dies (next-of-kin), retires or is released from duty, or reaches the age of 50, he receives his/her retirement benefit in the form of a lump sum payment. A compulsory pensionable contributor receives his/her retirement benefit in the form of a lump sum payment of his/her contribution upon death (next-of-kin), retirement, or reaching the age of 50, while the government-contributed portion is transferred to Retirement Fund, which then administers monthly pension payments. Voluntary members have the right to withdraw their contributions at any moment. At the end of 2017, the fund has RM10 billion in assets under management.

4. PENSIONS LANDSCAPE IN PAKISTAN

Government pension expenditures whether it is federal, military, or provincial is going out of control and is mostly unfunded. It has increased from 164 billion rupees in 2011 to 988 billion rupees in 2021. The federal government's expenditure (including that of military) on pensions has increased more than five times during the last ten years. On the other hand, provincial pension expenditure has increased more than seven times. Contrary to that, tax revenues have increased only 2.7 times during the same period.

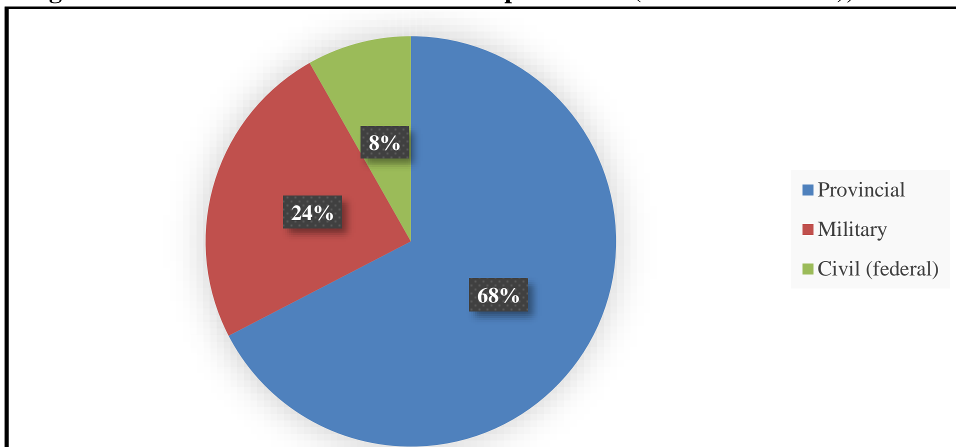
Pie charts below present a comparison of the shares of provincial, federal, and military pension expenditures in total pension expenditures of 2019-20 and 2021-22. It is evident that the share of military pension expenditure has declined from 32 percent to 24 percent while provincial expenditure has increased from 59 percent to 68 percent in the given fiscal years.

Fig. 2. Pension Shares in Total Pension Expenditures (1029 billion PKR), 2019-20



This pie chart in Figure 3 shows that out of 1656 billion rupees of total pension expenditure during 2021-222, 24 percent goes to military pension and only 8 percent to the other federal pensions. Provincial pension comprises of 68 percent of total pension expenditure in the country during 2021-22.

Fig. 3. Pension Shares in Total Pension Expenditures (1656 billion PKR), 2021-22

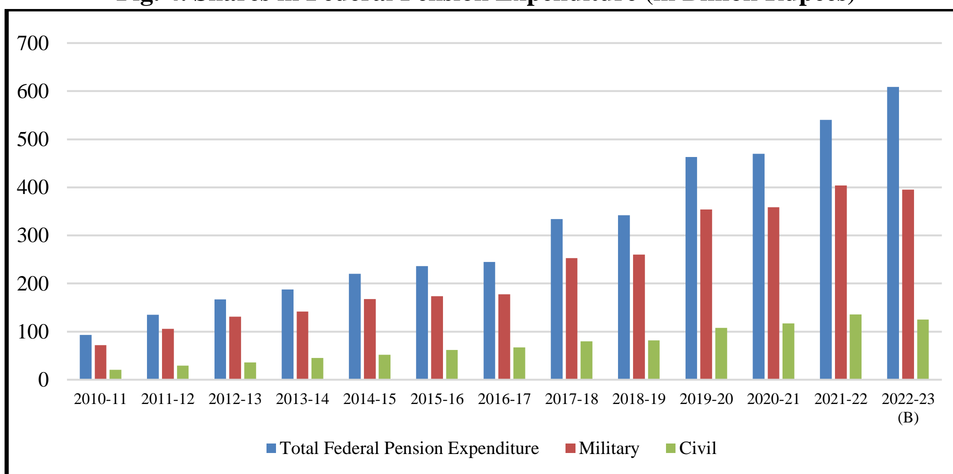


Source: Federal Budget in Brief, 2021-22 and Provincial Budget Documents.

4.1. Pension Scenario of Federal Government and Military

The defence budget announced in the fiscal year 2021-22 by the federal government has got a 6.3 percent increase considering a number of domestic and foreign concerns faced by the nation, including strained relations with India and the potential negative consequences of US military departure from Afghanistan. According to the budget 2022-23, the defence spending for 2022-23 will be 1.6 trillion rupees as far as current expenditure is concerned, which accounts for around 16 percent of overall budget expenditure.

Fig. 4. Shares in Federal Pension Expenditure (in Billion Rupees)



Source: Budget in Brief (revised estimates).

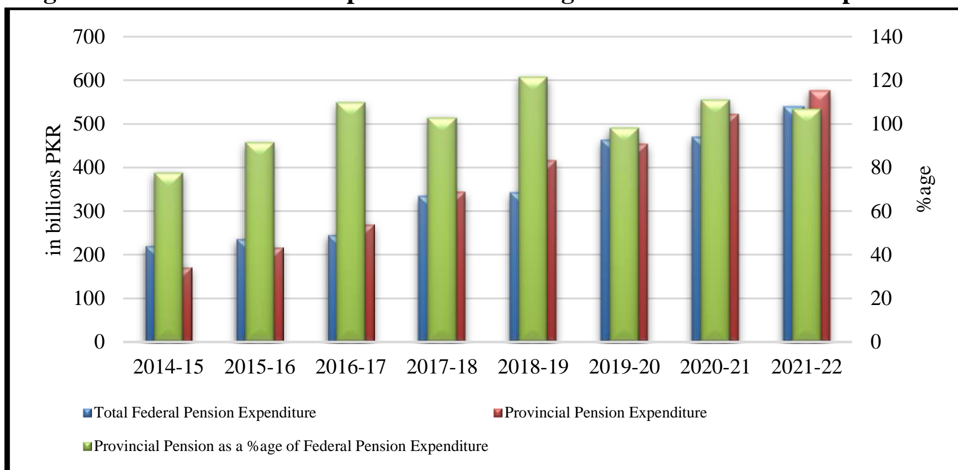
A deeper examination reveals that this figure of 1.6 trillion rupees excludes 395 billion rupees for retired military personnel's pensions and 340 billion rupees for the Armed Forces Development Program. As far as the pension expenditure of the last year (2022) is concerned, public pensions for the military make up over 75 percent of the federal government's pension expenditures. The expenditure under the military pension head has also been rising at an average of more than 16 percent annually since 2014. Expenditure on retired military personnel's pensions is more than thrice the amount spent on retired federal government employees' pensions. The worst part is that these pensions are not adequately financed. If both the federal budget and pension expenditure keep on growing at the current rate, by 2050 the pensions would claim 56 percent of the federal budget, leaving hardly any money for defence, development and other heads (Khawar, 2018).

It is, however, important to explore how this crisis can be averted. The state is currently making no plans to cover future pension obligations. Usual practice around the globe is that pensions are paid out of a fund to which both employee and the employer contribute during the course of his/her employment. The fund invests the contribution in a range of capital market instruments to produce profits. These earnings are meant to help the employee once he or she retires.

4.2. Provincial Pensions

While provincial pension expenditure has consistently constituted a significant portion of the overall pension spending in Pakistan, the exact percentage in relation to federal pension expenditure experiences fluctuations over time. It was the highest in FY-19 which was around 121 percent. However, it decreased in FY-22 to 107 percent.

Fig. 5. Provincial Pension Expenditure as a % age of Federal Pension Expenditure



Source: Revised Estimates from Provincial and Federal Finance Divisions.

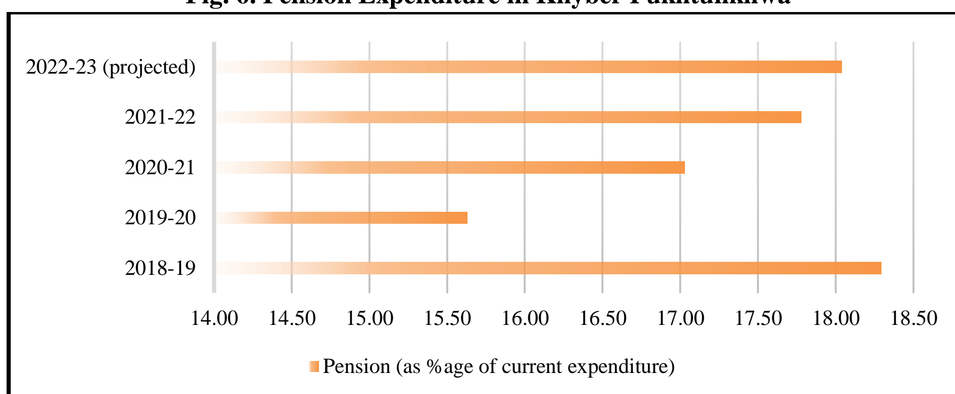
4.2.1. *Pension Scenario in Khyber Pukhtunkhwa*

Even before the COVID-19 outbreak, the fiscal situation of the government of Khyber Pakhtunkhwa was precarious. Federal transfers to the province amounted for 90 percent of total provincial receipts in 2019-20. Despite recent revenue increases –

particularly from the Sales Tax on Services – the Government of Khyber Pakhtunkhwa's reliance on federal payments has not decreased appreciably. The start of COVID-19 has further constrained budgetary space, which is part of a worldwide trend. The epidemic has had an impact on the financial health of defined benefit pension plans all around the world. In 2019-20, federal allocations to GoKP were Rs. 670.9 billion, whereas in 2020-21, they were Rs. 609 billion. As demonstrated in the table below, provincial taxes will not be enough to make up for the shortfall in federal transfers. Introducing new taxes or raising current tax rates will be detrimental during the epidemic, whereas broadening the revenue base through administrative reforms will only have a medium- to long-term impact (Ahmed, Amin, Bakhtiar, & Javed, 2021).

Every year, the cost of a pension rises. These expenditures have been expected to increase by 48.8 percent from 2019-20 to 2022-23. Pension expenses as a proportion of current expenditures are also rising, rising from 15.63 percent of the overall current expenditure in 2019-20 to 18.04 percent in 2022-23. The hefty salary and pension cost would continue to consume the budgetary space available for health, education, and other welfare-related goals in Khyber Pakhtunkhwa. This will have major ramifications for a fragile provincial economy.

Fig. 6. Pension Expenditure in Khyber Pukhtunkhwa

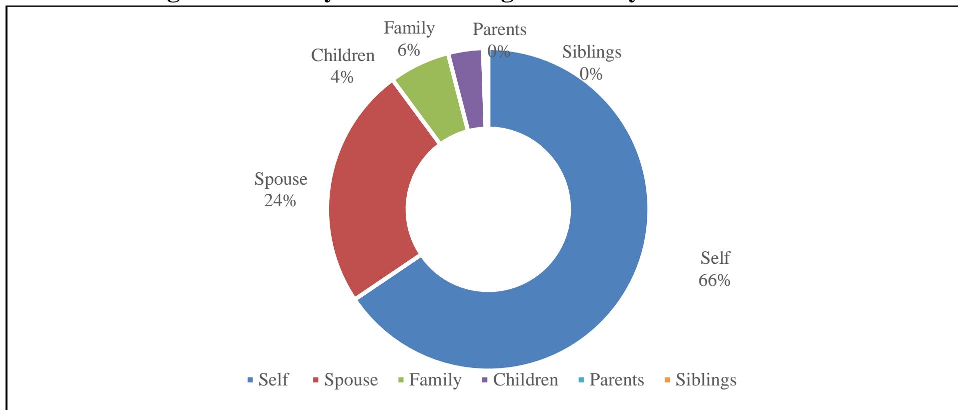


Source: Actual Revenue Expenditure, Finance Department, Government of KP.

Annual public pension expenditure in Khyber Pakhtunkhwa has increased from 15.6 percent of the provincial budget for current expenditure in 2019-20 to over 18 percent in 2022-23. The pension expense has expanded nearly tenfold, from Rs. 7.2 billion in 2009-10 to Rs. 94.6 billion in 2021-22, surpassing the growth of wages, federal payments, and even the entire budget size. Financing such a substantial rise in pension costs will now be difficult. If debt is used to fund pensions, a gap in the government's financial accounts will result in a high cost of refinancing the liabilities. In reaction to COVID-19, the government has spent more on family pensions and medical allowances for retirees, in addition to the ordinary pension costs. Since 2008-09, the number of retired civil officials in Khyber Pakhtunkhwa's public sector has increased at an annual average growth rate of 7 percent. As a result, the total number of pensioners increased to 169,358 by the end of fiscal year 2019-20, resulting in a significant increase in the government's fiscal burden over the same time. The majority of active retirees are from the lower ranks; from grade 1 to 4. In terms of obtaining the largest pension amount,

grades 15-17 are in the top three. In both circumstances, there is a frequent public pressure on the government to regularise adhoc or part-time personnel, which would merely add to the government's rising post-retirement obligations.

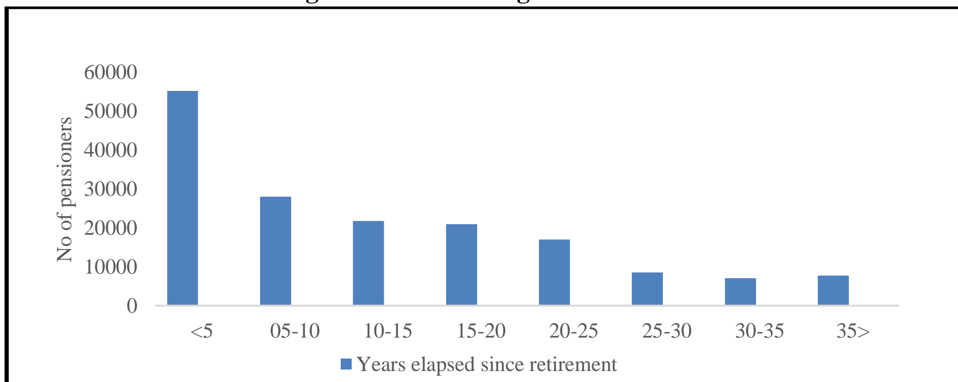
Fig. 7. Hierarchy of Pension Eligible Family Members in KP



Source: Figure based on data from the report titled, "Government Pension and Fiscal Sustainability in KP".

The multi-level hierarchy of eligible family members, which spans three generations, remains the single most significant problem. This increases the administrative burden of inspection in terms of time, expense, and effort spent tracing, documenting, and confirming the numerous ties that extend from the retiree to family members and from one family member to the next. Marriage certificates, medical certificates, affidavits, and other documents are included in the paperwork. Despite the introduction of computerised checks, this structure puts pensions at danger of mismanagement and fraudulent activities, which are hard to trace. Second, the thirteen layers significantly lengthen the life of the pension. More than 1,300 pension claims dating back more than 50 years are still active in the system. Even this figure is an understatement because pensions can be reopened even after they have been terminated if family members' qualifying criteria alter. Apart from the retirees themselves, a considerable chunk (34 percent) is collected by family members, such as spouses, children, parents/guardians, and siblings, as seen in the graph on the right.

Fig. 8. Pensioners' Age Curve in KP



Source: Figure based on data from the report titled, "Government Pension and Fiscal Sustainability in KP".

Pension duration has already increased as a result of increased life expectancy, and this trend is anticipated to continue. The report on pensions of Khyber Pukhtunkhwa presents thirteen layers of pension life which shows that more than 1,300 pension claims dating back more than 50 years are still active in the system. Even this figure is an understatement because pensions can be reopened even after they have been terminated if family members' qualifying criteria alter. Pension duration has already increased as a result of increased life expectancy, and this trend is anticipated to continue. The Cabinet has adopted revisions to the Rules, limiting the extent of family pension eligibility and simplifying the structure. Third, many layers result in a scenario in which the pace of new pensioners entering the system far outnumbers the rate at which old pensions are terminated. Over a three-year period from 2015-16 to 2017-18, over 11,000 workers retired and were eligible for pensions. During the same time span, however, just around 100 pensions were terminated on an annual basis on average. This equates to a 110:1 entry-exit ratio. During the period 2015-16 to 2019-20, the number of pensioners added to the system increased at an annual rate of 8.1 percent, while the pension cost increased at an annual rate of 18.7 percent. The following graph depicts the number of years that retirees have been receiving their pensions. It can be seen that 21,736 people have been receiving pensions for the previous 10-15 years, while the government has been covering the costs of 1,377 people[1] for more than fifty years. This, too, corresponds to the national picture. Pension spending is predicted to rise to 3.5 percent of national GDP in the medium term as a result of longer life expectancy and demographic change.

4.2.2. Pension Scenario in Punjab

Punjab has a population of around 110 million people. It accounts for about 54 percent of the nation's annual goods and services production. As a result, the performance of the national economy is inextricably linked to the performance of Punjab's economy.

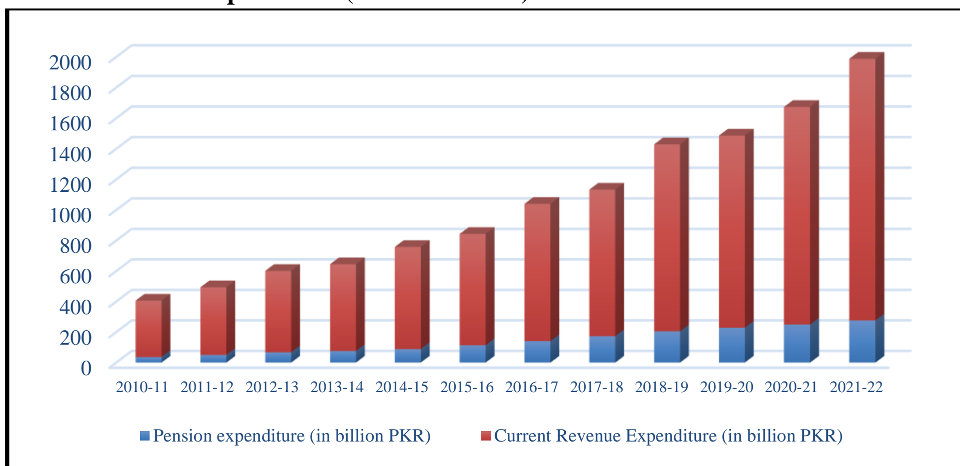
After salaries, pensions are the second highest current revenue expenditure for the Punjab government. The rate at which this expense is increasing is cause for alarm. For its permanent workers, the government has a Defined Benefit (DB) Pension Scheme. The pension programme is operated on a "pay-as-you-go" basis, which means that pension payments are made from that year's income regardless of when the liability accrues. Given the rising burden of pension expenditure, the government has taken a more systematic approach to the valuation, reporting, and funding of pension liability in recent years.

The Punjab government conducted actuarial valuations of its pension liabilities in 2007-2009, 2010, 2015, and 2019. While estimating future pension obligations, actuarial valuation makes specific economic and demographic assumptions. Actuarial valuation is a critical operation that gives vital insights into the long-term viability of a pension system. The table below depicts the trend in Punjab pension expenditure from 2010 to 2018.

---

[1]SDPI report: Government Pension and Future Fiscal Sustainability

Fig. 9. Share of Punjab Pension Expenditure in Current Revenue Expenditure (in Billion PKR)

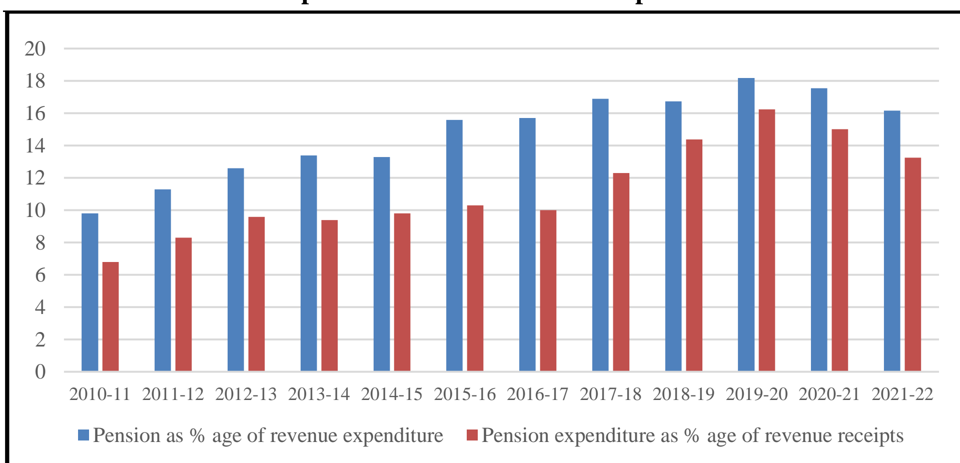


Source: White Paper (various issues), Finance Department, Government of Punjab.

Pension spending as a percentage of current revenue expenditure has risen from 9.8 percent in fiscal year 2010-11 to 16.2 percent in fiscal year 2022-23. Similarly, the ratio of pension expenditure to general revenue receipts has risen from 6.8 percent in fiscal year 2010-11 to 13.3 percent in fiscal year 2021-22. If pension spending continues to rise at the same rate, the government's budgetary flexibility for other current and/or future expenditures will be reduced. The following is a graphical illustration of predicted pension payouts over the next 30 years:

Government of Punjab follows the Federal Government in allowing annual increase in salary and pension. Comparison of inflation and increase in salary and pension given by the Government of Punjab since FY 2010-11.

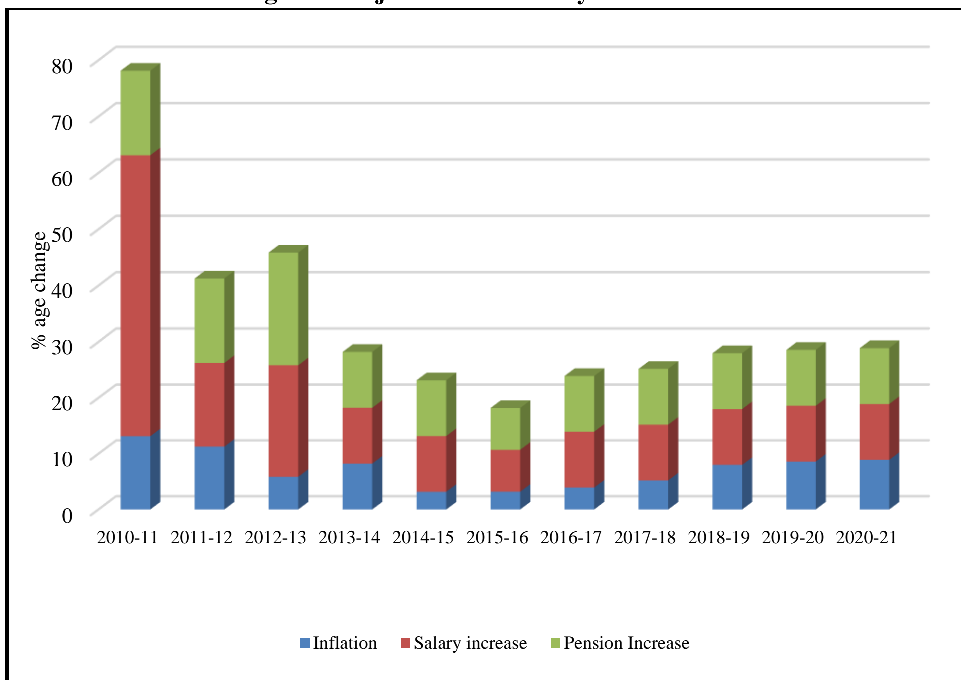
Fig. 10. Punjab Pensions as %age of Current Revenue Expenditure and Revenue Receipts



Source: White Paper (various issues), Finance Department, Government of Punjab.

Annual increase in salary and pension without regard to inflation may lead to unmanageable pension expenditure and liabilities. It is imperative that annual increase in salary and pension be linked to inflation as practiced in developed economies.

Fig. 11. Punjab Pension/Salary Vs Inflation



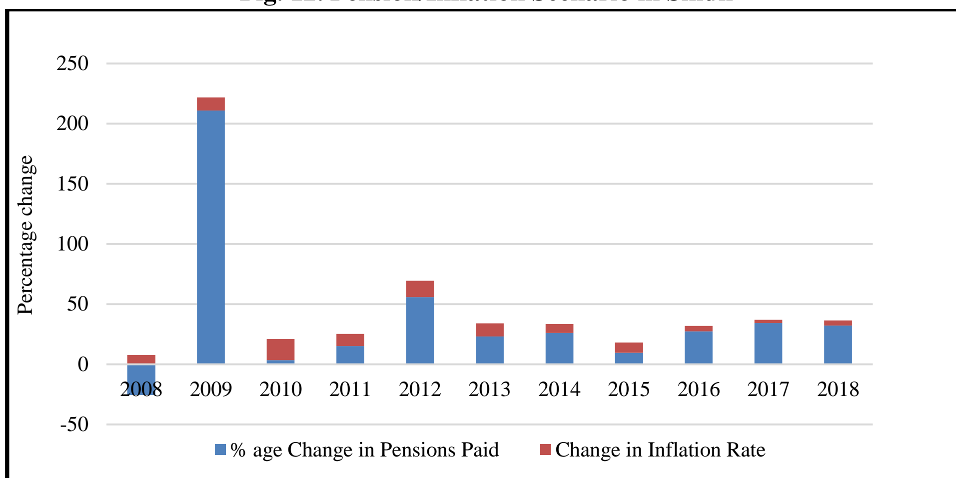
Source: White Paper (various issues), Finance Department, Government of Punjab.

The compound annual growth rates (CAGR) given in the White Paper for the year 2021-22 for Punjab shows that current expenditure has increased by 13.06 percent over a period of eleven years. While the pension expenditure alone has increased by 20.25 percent for the same period. Compared to that increase in the collection of revenue for the same period is merely 14 percent.

4.2.3. *Pension Scenario in Sindh*

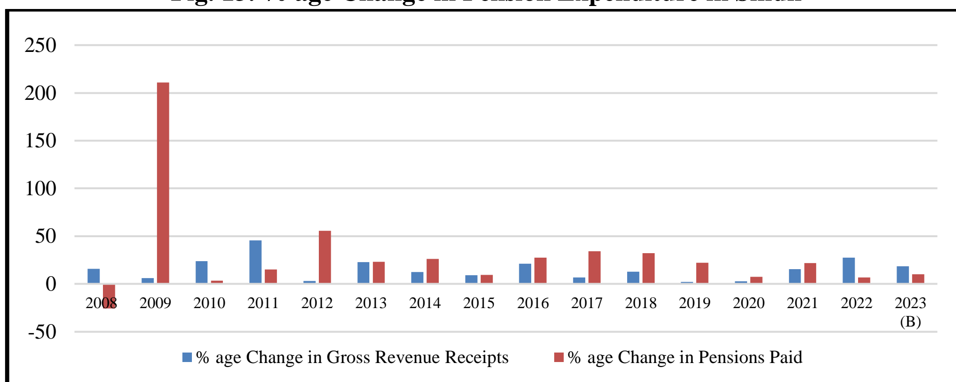
Sindh is Pakistan's second largest province, with 47.886 million people (2017), accounting for 23 percent of the overall population and 17.7 percent of the total geographical area. Sindh, being Pakistan's industrial, economic, and financial hub, is vital to the country's economy and progress. Some of the province's principal characteristics make it an important center of economic activity in Pakistan. Its primary advantage is proximity to the open sea, which allows it to have a broad economy that includes heavy industries, manufacturing, the services sector, and agriculture. The services sector, followed by industry, has contributed the most to the province's economic growth. The province has two seaports that handle the majority of the country's exports and imports, as well as a booming stock market and the most resilient corporate sector, which have been the driving forces behind the country's economic activity.

Fig. 12. Pension/Inflation Scenario in Sindh



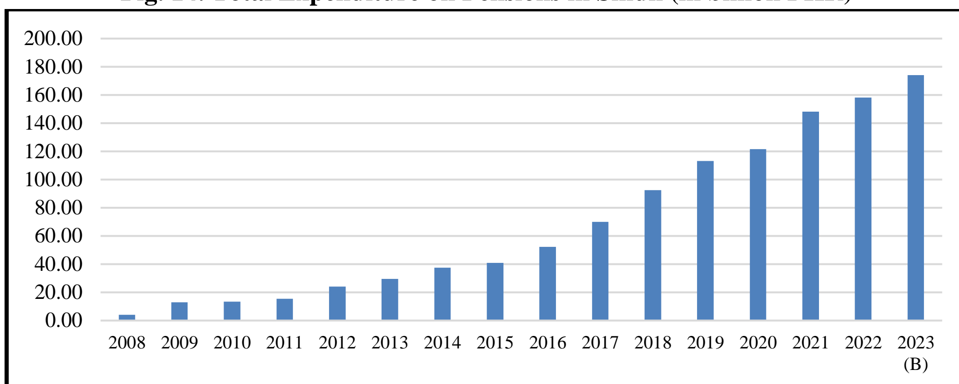
Being the second largest province indicates a high population of retirees, which renders the province more exposed to problems created by pension increases over time. Employee Retirement Benefits, which comprise pension and gratuity payments provided to retired workers, are a government liability that is quickly growing as a result of new retirements and increases in pension emoluments. According to the Sindh Budget Strategy Paper for the years 2022-24, the expenditure on employees' retirement benefits accounts for around 16 percent of total current revenue expenditure in these two fiscal years, while the share of employees' retirement benefits during fiscal year 2019-20 and over the next three years is expected to remain at 14 percent to 15 percent on average. Because of the revision of pension emoluments and the restoration of commutation amount in July 2018, allocations for employees' retirement benefits have been revised upward by 14.7 percent from Rs. 99.3 billion to Rs. 114.0 billion during the current fiscal year, representing a 23 percent increase over actual expenditure in the previous fiscal year. Expenditure on employees' retirement benefits is expected to expand at a 10 percent annual cumulative growth rate over the next three years (2019-20 to 2021-22).

Fig. 13. % age Change in Pension Expenditure in Sindh



Source: Budget Strategy Paper (Various Issues), Finance Department, Government of Sindh.

Fig. 14. Total Expenditure on Pensions in Sindh (in billion PKR)



Source: Budget Strategy Paper (Various Issues), Finance Department, Government of Sindh.

4.2.4. *Pension Scenario in Balochistan*

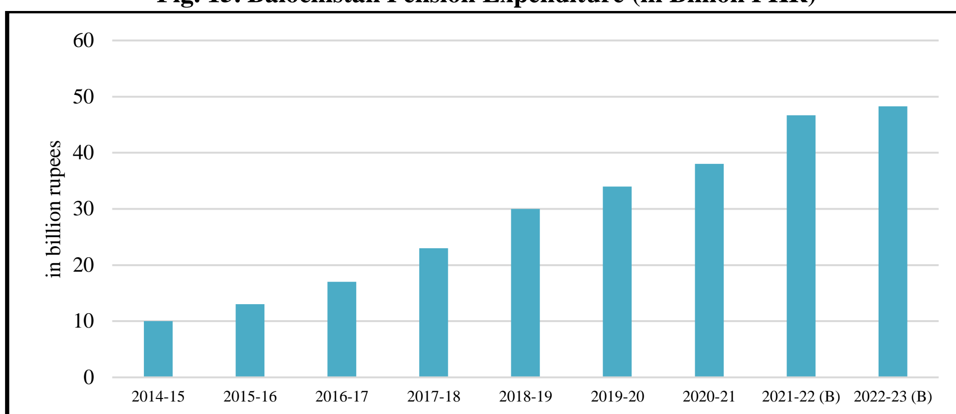
Balochistan is Pakistan's biggest province, covering 347,190 square kilometres and accounting for 43.6 percent of the country's total land area. However, it is also the least populous province in the country, with just 9.3 million people (5 percent of the total population) living there. Apart from the major hubs of Quetta and Khuzdar, the rest of the province's population is dispersed across a broad expanse of dry and hilly territory. These unusual geographical and population density characteristics, together with the province's governing system, create significant impediments for public service delivery. As a result, Balochistan is one of Pakistan's least developed provinces, with poor macroeconomic and social metrics.

Despite its strategic position and abundant natural resources, Balochistan contributes barely 8 percent of the national GDP. Balochistan's economy is mostly based on agriculture, transportation and wholesaling, and manufacturing. During the previous decade, these three industries contributed an average of 77 percent to the Balochistan economy. During the same time period, the mining industry contributed an average of 5.5 percent. This contribution is small in comparison to the mineral wealth that Balochistan possesses.

Pension expense has been increasing at an uncontrollable rate in recent years, which is a major source of concern for the government. Estimates of Pension Expenditure have been produced in past fiscal years without taking actual expenditure patterns into account, which created estimation issues and questioned budget credibility under this head. Pension spending was anticipated to be Rs. 33.785 Billion for FY 2019-20, whereas revised estimates of 2019-20 pitched up to Rs. 33.616 Billion, which was close to the Budget Estimates. Pension expenditure has expanded rapidly in recent fiscal years, with the greatest growth rate in the last five years at 37 percent and the lowest at 12 percent.

As a result, when generating budget estimates for Pension for FY 2022-23, Rs. 48.3 Billion has been allotted, representing a 30 percent increase in expenditure above revised estimates of 2019-20. It represents 51 percent of the total proposed expenditure under "General Public Service". The graph depicts the pension expenditure trend over the last several years, which demonstrates an extravagant growth, necessitating the government's prompt attention to solve the issue.

Fig. 15. Balochistan Pension Expenditure (in Billion PKR)



Source: White Paper on Budgets (various issues), Government of Balochistan.

5. FEDERAL AND PROVINCIAL PENSION SYSTEMS — SUSTAINABILITY CHALLENGE

Pensions and other forms of social protection are challenging subjects for authorities in almost every nation. However, in developing nations, where the fiscal architecture is either too primitive or too unbalanced to implement a full system, the dilemma of establishing sustainable pension and social protection systems is considerably more urgent. Despite the fact that it is a complicated political matter in all nations, the problems in Pakistan are caused by a variety of structural and procedural factors.

It has been observed in the previous sections that pension programes for Pakistan's government officials are expanding in expense, posing a danger to other development goals if not reined in. Since 2012, these expenses have risen from roughly 4.5 percent of Sindh's and Punjab's province fiscal revenues to almost 12 percent of provincial revenues in 2019. According to actuarial forecasts, these costs, together with rising salary costs, will continue to rise significantly in the future years, squeezing out other limited development public spending. By restricting benefit indexation and decreasing benefits for people who retire early, the government may control the increase of these expenditures while simultaneously maintaining fairness and predictability of benefits. In this section, the focus is on putting some light on the inconsistencies in the civil pension system and how these inconsistencies add to the fiscal cost of the system, making it unsustainable.

Punjab and Sindh Civil Service Pension Schemes incur significant financial expenditures. Pension expenditures are expected to nearly double as a percentage of fiscal revenues by 2060 if benefits rise in lockstep with wage growth, but might be stabilised at about 15 percent of fiscal revenues if benefit increases are confined to consumer price inflation. The long-term viability of both basic salaries and pensions is also a major problem, with pension costs expected to soon surpass basic salaries as a percentage of government spending.

Basic wages and pensions are expected to rise from approximately 25 percent of provincial revenues in 2020 to over 50 percent in 2060 in Punjab, and from about 32 percent of revenues in 2020 to nearly 42 percent in 2060 in Sindh. As a result, civil service pay and pension benefits will eat out other government spending. Pensions are also expected to surpass salaries in Punjab in 2023 and Sindh in 2028.

Let's consider the example of Punjab. In June 2013, the total number of retirees getting pensions was 440,000 and the amount of pension expenditure was 55 billion rupees. In 2020, the number of pensioners grew up by 25 percent (550,000) while the expense on pensions increased more than four times to 238 billion rupees. A special section on the need of pension reforms in Pakistan by the State Bank of Pakistan has presented five reasons behind this exuberant increase.

- The first and the foremost reason is the retrospective increases in pension payments. When the federal government raised pension pay in 2009-10, a clause was added to it stating that the rise would be applied to future retirees. This implied that a public employee retiring in any year after 2010 would be eligible to all the prior increases in pension pay. The provinces conform to it as well. This provision was retained in all the of future pension increase circulars. So for instance if an employee is getting retired in 2020, he/she will be entitled to all the subsequent increases after 2010 till 2020. Actually pensions increased in 2010 by 15 percent, in 2012 by 20 percent (this increment was not applicable to the retirees after 2017), in 2015 by 7.5 percent, in 2017, 2018 and 2019 by 10 percent respectively. The employee retiring in 2020 will be retrospectively getting all these increments in his/her monthly pension payment. Those who retired previous to 2010 do not have the same benefit.
- Secondly, the increasing number of pensioners availing the commutation facilities is the reason behind the increase in the public pension expenditure.
- Third, the higher number of employees opting for early retirement.
- Fourth is an increasing amount of survivorship benefits drawn by the eligible family members in case of the death of the present employee, or the retiree.
- Last is the highest amount of replacement rate in Pakistan, it is 70 percent of the last drawn salary by the retiree.

Box 1: How Pension Coverage Becomes a Bomb

In order to fully understand and absorb the severity of the consequences, let's see how a 2 percent pension coverage results in a pension bomb.

After completing his 30 years of service, a 17 grade government officer retired in 2020. His last drawn salary was 64, 870 rupees after deducting all the allowances. His pension was fixed at 70 percent of his last drawn basic pay which becomes 47, 109 rupees. However, he is entitled to all previous raises dating back to 2010. The pension is calculated based on the previous six increments and now stands at 85,104 rupees. In 2010, a medical allowance of 20 percent of the base pension was added, which is also available to today's pensioners. The medical allowance was further increased by 25 percent later on. His/her regular monthly pension becomes 96,859 rupees adding the medical allowance and its growth. This is more than his last drawn basic as well as gross pay of 92,305 rupees assuming that the retiree has not taken a commutation.

In this way the employees retiring prior to 2010 are getting quite less of what the retirees getting today. So they put pressure on the government for annual pension increments as they are kept deprived of what the retirees of 2020 are getting at the moment.

It's astonishing to think that if a government official retires today, he'll take home more money than his last drawn basic pay. This suggests that he has a financial motive to retire early. He may either enjoy his retirement or work in the private sector. Taking an

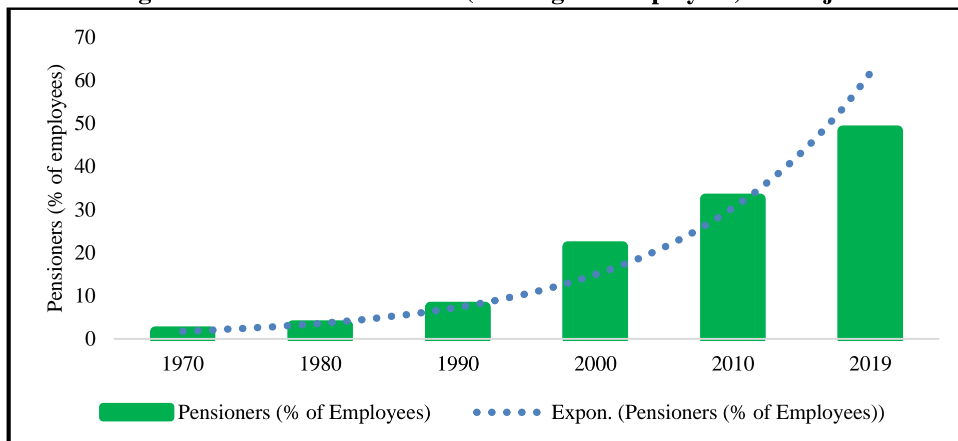
early retirement is advantageous for him. This statement is supported by data. In Punjab, early retirement accounted for 22 percent of total retirees between 2006 and 2010. By 2011-15, it had risen to 26 percent, and by 2019 it had risen to a staggering 63 percent.

This is how pension costs have skyrocketed in the previous decade. Another approach to look at the rising pension costs is to look at the number of retirees as a percentage of total employees. Pensioners made about 1.7 percent of employment in Punjab in 1970, but now make up 48.3 percent in 2019. With more individuals opting for early retirement, this percentage is only going to rise.

In our case, a grade 17 officer who retires at the age of 60 and chooses commutation receives a lump sum payout of 2.5 million rupees, while his monthly recurring pension drops to 62,958 rupees from 96,859 rupees without it. The lump sum reward would have climbed to 3.7 million rupees if he had retired at the age of 50. In addition, if the pensioner lives longer than 72 years, he/she would be entitled to an extra income of 11,140 rupees if he/she retire at the age of 60. This increased pension amount is likewise subject to the retroactive increase in pension.

In Punjab, over 99 percent of employees choose to commute, and the cost of this one-time payment is rising as more individuals choose to retire early. When none of these pensions are funded, the entire situation grows worse. Employees are being hired at a rapid pace, and the number of those retiring is increasing even quicker. No government can back out of these commitments. Even in a financial emergency, the government can decrease pay for current employees, but it cannot affect the liabilities of retirees.

Fig. 16. Number of Pensioners (as % age of Employees) in Punjab



5.1. Steps Taken for Pension Reforms

Since the beginning of the century, pension reform has therefore become a key concern in worldwide policymaking. While most industrialised economies are increasing pension spending due to ageing populations, low fertility rates, and high dependency ratios, structural problems and limited fiscal capacity make such expenditure unsustainable in some emerging economies. In 2001, the government enacted a series of parametric adjustments to civil service pension arrangements for current workers in order to make the system sustainable. These short term adjustments included the reduction of commutation

factors (the commutable part of the gross pension was reduced to 40 percent and then to 35 percent in 2005), the abandonment of pension benefit restoration, and the reduction in the maximum pension from 77 percent to 70 percent. But these short term arrangements did not prove to be much useful. Thus the government decided to explore a proposal to put new government employees into a contributing pension plan. For this the Cabinet resolved to create an actuarial office in October 2002. It also formed an inter-ministerial Pension Reform Working Group (PRWG) in 2004, which, in collaboration with the Actuarial Office, gave direction for civil sector pension reform in 2005.

National Commission for Government Reforms (NCGR) in its report (Vol-I, 2008) recommended to reform pensions and the recommendation was presented as a guiding principle. It stated that:

> "The Pension System should be revised from Defined Benefits, to Defined Contribution and should be funded."

NCGR further recommended to index the pensions for maintaining the purchasing power of pensioners, which lately was being overprovided. The commission proposed a complete road map which required complete analysis of pension options and made recommendations guided by the advice given to the government by the Pay and Pension Committee, by the Finance Division, Establishment Division and an Actuarial firm/consultant". This recommendation could not mature so far.

Commission further proposed a Staff Welfare Department like that of Defence services which should have an elaborate mechanism of ensuring reemployment prospects of retirees. Government was recommended to undertake measures for increasing reemployment opportunities for the civil servants for reducing burden of unilateral salary payments of pension.

6. PROJECTIONS FOR SUSTAINABLE PENSIONS

6.1. Moving from an Unfunded Defined Benefit (DB) or to a Fully Funded Defined Contribution (DC) System

From the above analysis it turns out that the existing system has multiple payout systems to pensioners, is actuarially unfair, biased upward and above all its financing is becoming expensive since it is paid from the tax payers' money. The system is a DB which requires flexibility in terms of contribution, vesting period and other parameters in case of any reform or shock such as increase in life expectancy, cost elements, inflation indexing etc. But since in case of Pakistan this system is of Pay-As-You Go nature, therefore, these options are not considered. This system is unsustainable and world over considered as a least preferred one. Replacement of the present unfunded defined benefit system with a hybrid contributory defined-contribution scheme for new entrants is one solution that might partially solve the problem of unsustainability and diversify individual and government financing risks over time.

Having a DB which is unfunded creates barriers for entry and exit into the civil services. Turnovers are not possible because of the unrealised pension benefits. If this system is converted into a DC system then employees would have more leverage for switching across governments/autonomous bodies/recruitment types and private sector as well. This would help attract qualified and talented individuals in service in various stages of service.

Globally around 10-15 percent of the payroll is provided for financing a pension scheme. In case of Pakistan this is suggested to be 33.3 percent of the pension reckonable emoluments. In order to switch to a DC system which is fully funded (inflation indexed or without index), an actuarial analysis is required to ascertain payroll contribution. In case of a fully funded DC system, expected payouts can be ascertained. Below we have done some projections based on the following assumptions:

(i) Existing Pensioner would get the same pensions as they are receiving now. Overall volume is freezed, only exits from the system would allow inflation indexing. Using the budget estimates of Civil Federal Pensions for 2019-20 these are projected to remain constant for the next five years and then start to decline @ 5 percent per annum due to exiting pensioners.

(ii) For those in government service assuming emoluments reckonable for pension to be current pay bill[2] along with 30 percent of current allowances. Three scenarios of defined contribution funded by government at the rate of 25 percent, 20 percent and 15 percent are developed. Final outlay of DC and ongoing older pension expenditure as a percentage of current expenditures is reported in tables.

(iii) Current Expenditures are assumed to increase by 5 percent per annum

Table 1

Scenario I: Defined Contribution Funded by Government at the Rate of 15%

Years	Civil Pension Million Rs	Pay +30% of Allowances Increasing @5% per Annum Million Rs	DC(15%) Million Rs	Current Exp Increasing @5% Million Rs	DC-15%
2019	82221.00			5589431.00	1.47
2020	93912.00	182027.40	27304.11	7288179.00	1.66
2021	93912.00	191128.77	28669.32	7652587.95	1.60
2022	93912.00	200685.21	30102.78	8035217.35	1.54
2023	93912.00	210719.47	31607.92	8436978.21	1.49
2024	93912.00	221255.44	33188.32	8858827.13	1.43
2025	93912.00	232318.21	34847.73	9301768.48	1.38
2026	89216.40	243934.13	36590.12	9766856.91	1.29
2027	84755.58	256130.83	38419.62	10255199.75	1.20
2028	80517.80	268937.37	40340.61	10767959.74	1.12
2029	76491.91	282384.24	42357.64	11306357.73	1.05
2030	72667.32	296503.45	44475.52	11871675.61	0.99
2031	69033.95	311328.63	46699.29	12465259.39	0.93
2032	65582.25	326895.06	49034.26	13088522.36	0.88
2033	62303.14	343239.81	51485.97	13742948.48	0.83
2034	59187.98	360401.80	54060.27	14430095.90	0.78
2035	56228.58	378421.89	56763.28	15151600.70	0.75
2036	53417.15	397342.99	59601.45	15909180.73	0.71
2037	50746.30	417210.14	62581.52	16704639.77	0.68
2038	48208.98	438070.64	65710.60	17539871.76	0.65
2039	45798.53	459974.17	68996.13	18416865.35	0.62
2040	43508.61	482972.88	72445.93	19337708.62	0.60
2041	41333.18	507121.53	76068.23	20304594.05	0.58
2042	39266.52	532477.60	79871.64	21319823.75	0.56
2043	37303.19	559101.48	83865.22	22385814.94	0.54
2044	35438.03	587056.56	88058.48	23505105.68	0.53
2045	33666.13	616409.39	92461.41	24680360.97	0.51
2046	31982.82	647229.85	97084.48	25914379.02	0.50
2047	30383.68	679591.35	101938.70	27210097.97	0.49
2048	28864.50	713570.91	107035.64	28570602.86	0.48
2049	27421.27	749249.46	112387.42	29999133.01	0.47
2050	26050.21	786711.93	118006.79	31499089.66	0.46

[2]Options such as median wages, or average wages can also be evaluated at micro level.

Table 2

Scenario II: Defined Contribution Funded by Government at the Rate of 20%

Years	Civil Pension Million Rs	Pay +30% of Allowances Increasing @5% Per Annum Million Rs	DC (20%) Million Rs	Current Exp Increasing @5% Million Rs	DC-20%
2019	82221.00			5589431.00	1.47
2020	93912.00	182027.40	36405.48	7288179.00	1.79
2021	93912.00	191128.77	38225.75	7652587.95	1.73
2022	93912.00	200685.21	40137.04	8035217.35	1.67
2023	93912.00	210719.47	42143.89	8436978.21	1.61
2024	93912.00	221255.44	44251.09	8858827.13	1.56
2025	93912.00	232318.21	46463.64	9301768.48	1.51
2026	89216.40	243934.13	48786.83	9766856.91	1.41
2027	84755.58	256130.83	51226.17	10255199.75	1.33
2028	80517.80	268937.37	53787.47	10767959.74	1.25
2029	76491.91	282384.24	56476.85	11306357.73	1.18
2030	72667.32	296503.45	59300.69	11871675.61	1.11
2031	69033.95	311328.63	62265.73	12465259.39	1.05
2032	65582.25	326895.06	65379.01	13088522.36	1.00
2033	62303.14	343239.81	68647.96	13742948.48	0.95
2034	59187.98	360401.80	72080.36	14430095.90	0.91
2035	56228.58	378421.89	75684.38	15151600.70	0.87
2036	53417.15	397342.99	79468.60	15909180.73	0.84
2037	50746.30	417210.14	83442.03	16704639.77	0.80
2038	48208.98	438070.64	87614.13	17539871.76	0.77
2039	45798.53	459974.17	91994.83	18416865.35	0.75
2040	43508.61	482972.88	96594.58	19337708.62	0.72
2041	41333.18	507121.53	101424.31	20304594.05	0.70
2042	39266.52	532477.60	106495.52	21319823.75	0.68
2043	37303.19	559101.48	111820.30	22385814.94	0.67
2044	35438.03	587056.56	117411.31	23505105.68	0.65
2045	33666.13	616409.39	123281.88	24680360.97	0.64
2046	31982.82	647229.85	129445.97	25914379.02	0.62
2047	30383.68	679591.35	135918.27	27210097.97	0.61
2048	28864.50	713570.91	142714.18	28570602.86	0.60
2049	27421.27	749249.46	149849.89	29999133.01	0.59
2050	26050.21	786711.93	157342.39	31499089.66	0.58

Table 3

Scenario III: Defined Contribution Funded by Government at the Rate of 20%

Years	Civil Pension Million Rs	Pay +30% of Allowances Increasing @5% Per Annum Million Rs	DC (25%) Million Rs	Current Exp Increasing @5% Million RS	DC-25%
2019	82221.00			5589431.00	1.47
2020	93912.00	182027.40	45506.85	7288179.00	1.91
2021	93912.00	191128.77	47782.19	7652587.95	1.85
2022	93912.00	200685.21	50171.30	8035217.35	1.79
2023	93912.00	210719.47	52679.87	8436978.21	1.74
2024	93912.00	221255.44	55313.86	8858827.13	1.68
2025	93912.00	232318.21	58079.55	9301768.48	1.63
2026	89216.40	243934.13	60983.53	9766856.91	1.54
2027	84755.58	256130.83	64032.71	10255199.75	1.45
2028	80517.80	268937.37	67234.34	10767959.74	1.37
2029	76491.91	282384.24	70596.06	11306357.73	1.30
2030	72667.32	296503.45	74125.86	11871675.61	1.24
2031	69033.95	311328.63	77832.16	12465259.39	1.18
2032	65582.25	326895.06	81723.76	13088522.36	1.13
2033	62303.14	343239.81	85809.95	13742948.48	1.08
2034	59187.98	360401.80	90100.45	14430095.90	1.03
2035	56228.58	378421.89	94605.47	15151600.70	1.00
2036	53417.15	397342.99	99335.75	15909180.73	0.96
2037	50746.30	417210.14	104302.53	16704639.77	0.93
2038	48208.98	438070.64	109517.66	17539871.76	0.90
2039	45798.53	459974.17	114993.54	18416865.35	0.87
2040	43508.61	482972.88	120743.22	19337708.62	0.85
2041	41333.18	507121.53	126780.38	20304594.05	0.83
2042	39266.52	532477.60	133119.40	21319823.75	0.81
2043	37303.19	559101.48	139775.37	22385814.94	0.79
2044	35438.03	587056.56	146764.14	23505105.68	0.78
2045	33666.13	616409.39	154102.35	24680360.97	0.76
2046	31982.82	647229.85	161807.46	25914379.02	0.75
2047	30383.68	679591.35	169897.84	27210097.97	0.74
2048	28864.50	713570.91	178392.73	28570602.86	0.73
2049	27421.27	749249.46	187312.37	29999133.01	0.72
2050	26050.21	786711.93	196677.98	31499089.66	0.71

Fig. 17. Scenario I-Defined Contribution Funded by Government at the Rate of 15%

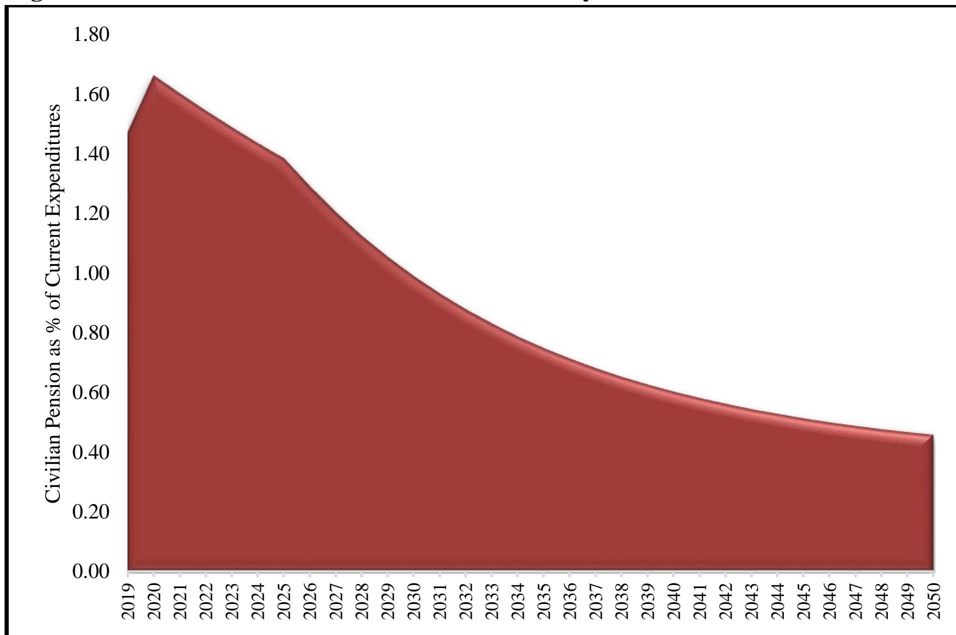


Fig. 18. Scenario II-Defined Contribution Funded by Government at the Rate of 20%

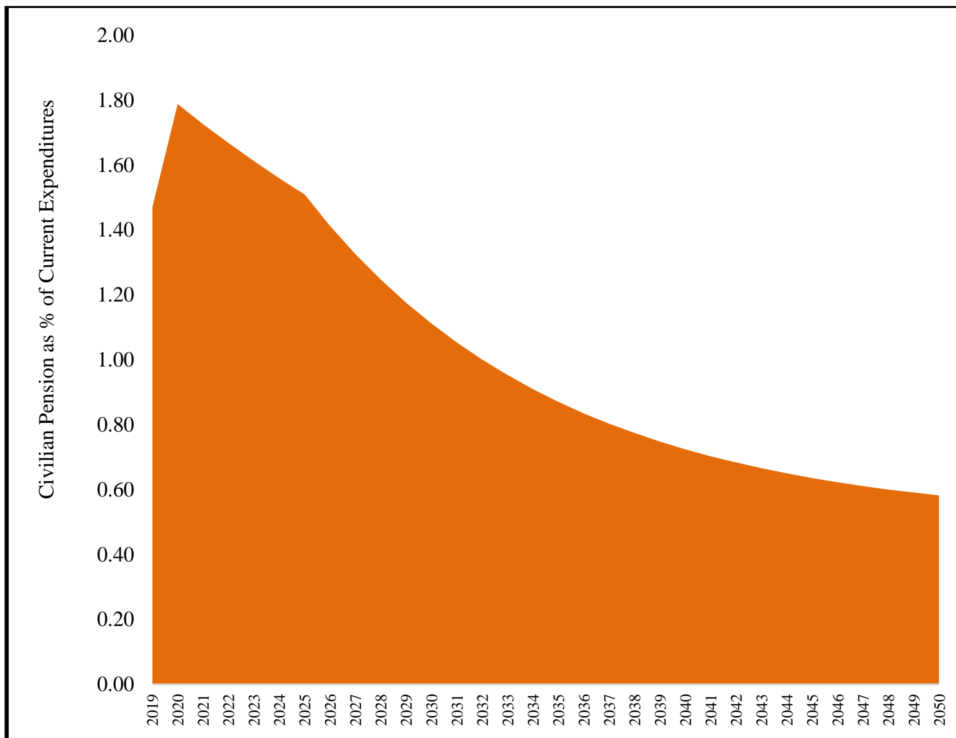
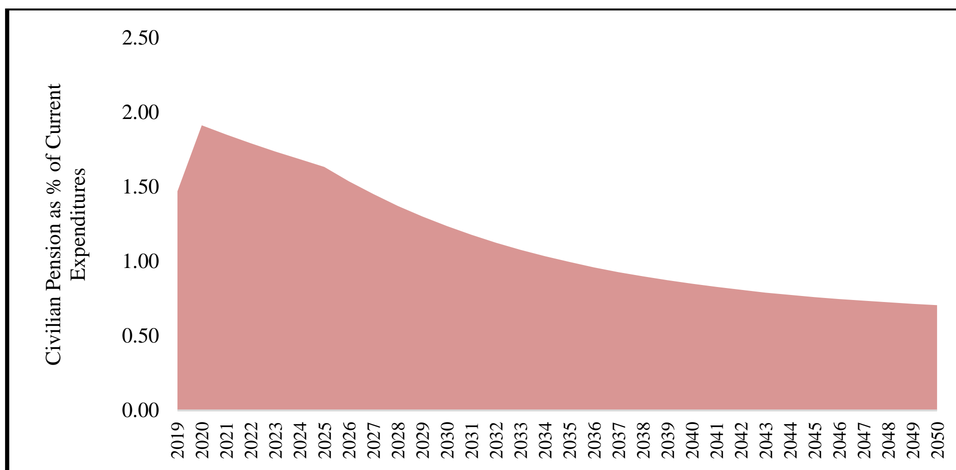


Fig. 19. Scenario III-Defined Contribution Funded by Government at the Rate of 25%



This exercise identifies that initially total pension outlays increase from 1.5 percent of the total current expenditures to around 1.83 percent, 1.72 percent and 1.61 percent for the three scenarios respectively in the 2020-21 that is the first year of reform. This initial rise tapers down to starting level of 1.5 percent in the 6th, 5th and 3rd year respectively for the three scenarios and then continuously decline and converge around 0.50 percent in thirty years' time period. Thus making pension payouts to be sustainable in the long run.

6.2. Following Pillars based approach of World Bank

At present federal pension scheme does provide a pension floor of Rs. 10000 in case of pensioner/family pension and of Rs.15000 per month for those of age 75 and above. However as per the World Bank prescription a pillars based system can be developed. We have social safety net program such as BISP which is a means tested program and provide social safety universally. This could be the zero pillar of pension payments which would be universally available. For the first pillar government can enhance the wages of existing employees and place a mandatory pension contribution scheme which could be run like or through the GP and Benevolent fund system or approved private sector pension funds. If wages are not increased then government can provide the contributory amount and invest as described earlier.

Finally we must encourage our young generations (whether government servants or private sector employees) to save, as ultimately it's them and their family who can manage a living standard as per their requirement.

7. CONCLUSION

Pakistan has a Pay-As-You-Go type pension system, which is financed by taxpayers' money which has resulted in building up of unfunded liability for the government. The expenditures on superannuation are voted and gradually coming into mainstream discussions on fiscal sustainability and public financial management. This requires an increase in future taxes to be solvent. Focusing on the scenario-based

projections, this study highlights how the existing pensions system is fiscally unsustainable. Our projections identifies that initially total pension outlays will increase from 1.5 percent of the total current expenditures to around 1.61 percent to 1.83 percent, for the three scenarios in the first year of reform. This initial rise tapers down to starting level of 1.5 percent in the 6th, 5th and 3rd year respectively for the three scenarios and then continuously decline and converge around 0.50 percent in thirty years' time period. Thus making pension payouts to be sustainable in the long run.

Globally around 10-15 percent of the payroll is provided for financing a pension scheme. In case of Pakistan this is suggested to be 33.3 percent of the pension reckonable emoluments. In order to switch to a DC system which is fully funded (inflation indexed or without index), an actuarial analysis is required to ascertain payroll contribution. In case of a fully funded DC system, expected payouts can be ascertained.

REFERENCES

Ahmed, V., Amin, S., Bakhtiar, U., & Javed, A. (2021). Government pension & fiscal sustainability in Khyber Pakhtunkhwa, sustainable energy and economic development (SEED) programme: Islamabad.

Asch, B., Mattock, M., & Hosek, J. (2019). Effects of the blended retirement system on United States army reserve participation and cost. In *RAND Publication*. https://doi.org/10.7249/rr2591

Establishment Division, GOP (2006). *A Manual of Pension Procedures*.

Dixit, Avinash (2002). Incentives and organisations in the public sector: An interpretative review. *Journal of Human Resources, 37*(4), Fall, 696–727.

Finance Division, Government of Pakistan. Budget in brief (various issues).

Finance Department, Government of Punjab. White paper (various issues).

Finance Department, Government of Sindh. Budget strategy paper (various issues).

Government of Pakistan, Prime Minister's Secretariat, *Report of the National Commission for Government Reforms on Reforming the Government in Pakistan, vol-I & II, May 2008.*

Hussein, N. (2019). The Malaysian pension system. *Nomura Journal of Asian Capital Markets*, *3*(2), 15–20.

Mahmood, K., Faraz, N., & Ashraf, M. (2020). The pension bomb and possible solutions. The Pakistan Development Review, *59*(1), 225–230.

Yaşar, B., Hekim, H., Hazır, Ö., Bayören, C., & Kepenek Bozkırlıoğlu, A. Ö. (2019). Analysis of sustainability policy and practices of a turkish group company: OYAK Case. *CSR, Sustainability, Ethics and Governance*, 277–290. https://doi.org/10.1007/978-3-030-04819-8_17

Pakistan Institute of Development Economics

Post Box No. 1091, Islamabad, Pakistan

www.pide.org.pk