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An Analysis of Sustainability of Unfunded Debt and Pensions in Pakistan

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Abstract

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Pensions have become a contentious policy issue in Pakistan, exposing fiscal gaps that have accumulated over many years. The growing reliance on unfunded debt, largely sourced through pension contributions, represents a serious risk that warrants investigation. This study examines domestic debt, the fiscal deficit, and interest rates as potential drivers of growth in unfunded debt and assesses the pension system's contribution to this trend since 1990. Using the Autoregressive Distributed Lag (ARDL) method, the relationship between unfunded debt and these three potential drivers is tested, while a Vector Error Correction Model (VECM) is used to explain the short-run dynamics of the long-run relationship. A series analysis of the Pensioners' Benefit Account (PBA) further evaluates the contribution of pension funds to the response variables. The results show no significant short-run relationship between unfunded debt and domestic debt, but significant short-run relationships with the fiscal deficit and interest rates. In the long run, unfunded debt is positively and significantly related to domestic debt and the fiscal deficit, and negatively related to interest rates. Growing public debt, an inability to contain the fiscal deficit, and rising interest rates have become a potent combination driving unwarranted additions to unfunded debt. The PBA analysis reveals a significant and rising contribution of pension funds to unfunded debt. Policymakers should heed the warning signs highlighted by studies such as this one to prevent the situation from worsening to the point at which it becomes irredeemable.

Keywords: Unfunded debt, fiscal deficit, domestic debt, Pensioners' Benefit Account

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1. INTRODUCTION

Pakistan's public debt rose sharply during the 1980s and 1990s. The Asian Development Bank (2002) notes real debt growth of 10% per annum in the 1980s, although growth in the debt burden remained moderate due to strong revenue growth and two cost-containment factors: (1) financial repression allowed the government to borrow domestically at below-market rates (e.g., 0.5% from central banks versus 6% T-bill rates); and (2) National Savings Schemes, such as Defense Savings Certificates and the Pensioners' Benefit Account, were zero-coupon instruments that deferred recorded interest costs until redemption.

The study focuses on Pakistan's domestic debt, defined as government borrowing from banks, non-bank institutions, and the public, together with private non-guaranteed borrowing and borrowing by state-owned enterprises (Mahmood and Rauf, 2008). Domestic debt is divided into unfunded debt (direct/non-bank borrowing), floating debt (short-term borrowing via T-bills), and permanent debt (medium- to long-term borrowing via prize bonds). The NSS exclusively funds unfunded debt.

In the 1990s, declining concessional loans and capital inflows prompted reforms. Mehmood et al. (2009) note a shift toward costlier short-term external debt and unfunded domestic debt, making debt servicing unsustainable by 2000. Unfunded debt (via the NSS) was preferred because it was non-inflationary, tax-exempt, and attractive to institutional investors; its share of domestic debt grew from 18.6% in 1980 to 36.6% in 1990 and 49.1% in 2000.

1.1. Background

Rising spending needs and weak revenue collection, partly due to financial-sector inefficiencies, have driven the growth of Pakistan's domestic debt and forced continuous borrowing. Unfunded debt has become dominant because it is the cheapest financing option. The Pensioners' Benefit Account (PBA) grew from Rs. 180 billion in June 2013 to Rs. 384 billion in March 2022, while corresponding unfunded debt rose from Rs. 2.15 trillion to Rs. 3.61 trillion over the same period (ESP, 2022). Pfau (2009) notes the government's growing obligations to the PBA, which is now at risk without timely intervention, particularly if future contributions fall short relative to obligations to recipients.

1.2. Research Objective

PBA beneficiaries are a vulnerable group that relies on lifelong savings, and using these funds for debt servicing endangers both current pensioners and future contributors. The study argues that unfunded debt shifts the debt problem rather than solving it, thereby disproportionately placing vulnerable savers at risk. The research aims to understand why unfunded debt was chosen, the risks it may create, and whether similar choices might be repeated. Although unfunded debt may appear to be a small part of Pakistan's broader debt problem, its impact on vulnerable groups justifies focused study. The authors note that extensive literature exists on Pakistan's general debt problem, but unfunded debt specifically remains understudied, motivating this research to identify solutions and more sustainable paths forward.

2. LITERATURE REVIEW

Underfunding pensions has become a common strategy used by governments to raise money, particularly in light of recent increases in investment return losses (Yang and Mitchell, 2008). Novy-Marx and Rauh (2010) estimate the unfunded obligations of state employee pensions in the United States at more than $1 trillion. Unlike tax increases or debt issuance as means of financing government, unfunded pension liabilities frequently rise without explicit voter approval. State budgetary strain and balanced-budget requirements have been shown to negatively affect state pension funding (Chaney, Copley, and Stone, 2002). Unfunded pension liabilities are "the largest

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loophole in balanced budget pledges. When politicians have spent money without raising taxes, pensions have proven the perfect borrowing vehicle."

According to a 2011 study by Laurin and Robson, Canadian public-sector pension plans do not usually use market yields to determine their liabilities. If they did, Ottawa's unfunded pension liability would be $227 billion, about $80 billion more than the amount reported in the Public Accounts. Taxpayers, most of whom are restricted by federal tax laws from saving as much for retirement as they would like, risk having to bail out Ottawa's pension plans as the value of the typical federal employee's pension entitlement increases at a rate exceeding 40% of pay annually, far faster than the contributions made to fund it.

Furthermore, Hsin and Mitchell (1994) concluded that actuarial assumptions—specifically those concerning interest rates, wage growth, and amortisation periods—appeared to be set strategically in response to changing fiscal conditions. The study used cross-sectional data to evaluate the determinants of public pension plan funding, including fiscal stress and governance variables. Later research (Hsin et al., 1997) also used cross-sectional data to link governance characteristics, such as board composition, to funding and investment performance. According to that study, employing in-house actuaries and requiring pension board members to carry liability insurance improved funding. Funding was reduced when governments faced financial hardship and when workers were represented on the pension system board.

Scholars studying public finance have also recognised that resource availability influences budgetary decision-making, especially during recessions and cutbacks (Downs & Rocke, 1984). For example, the fiscal-stress literature has examined government budgetary responses to fiscal shocks during economic downturns. Depending on the severity of the fiscal crisis, government officials may adopt short-term measures such as depleting reserves and fund balances, reducing or postponing capital spending or improvements, increasing taxes, cutting programmes, laying off employees, or increasing programme costs (Dougherty & Klase, 2009; Hendrick, 2011). Decision-makers typically resist or delay cuts because they fear voters will react negatively to tax increases or spending reductions (Bourdeaux, 2018). These less controversial solutions often involve trade-offs between short-term benefits and the long-term costs of taking on debt, delaying capital spending, and/or underfunding pension systems (Bourdeaux, 2018; Chaney et al., 2002).

Moreover, anecdotal evidence (Retkwa, 1990; Hawthorne, 1992) suggests that budgetary constraints exacerbate the impact of economic stress on pension funding. In other words, compared with states required to maintain balanced budgets, states permitted to record deficits are less likely to reduce pension contributions when facing financial hardship. This implies that the effects of fiscal stress on pension financing are more pronounced in jurisdictions with balanced-budget constraints.

In addition, research on pension fund management shows a strong correlation between changes in sponsoring governments' financial resources and public pension funding and contributions (Chen, 2018; Coggburn & Kearney, 2010). Researchers have also found that, rather than pursuing unpopular tax increases or spending cuts, some state and local governments tend to reduce or postpone pension contributions to close budget gaps when under financial strain (Hendrick, 2011; Munnell et al., 2008). Because state officials have greater discretion and flexibility over pension funding, they can delay pension contributions as a fiscal-slack tool, especially when fiscal deficits occur (Munnell et al., 2008).

Martell et al. (2013) offered a different perspective on how pension funding affects state credit quality, arguing that unfunded pension obligations are comparable to general obligation (GO) debt.

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Because implicit debt is sometimes subject to less scrutiny and regulation than explicit debt, the authors concluded that pension underfunding is a more serious issue than GO debt.

According to Su and Hildreth (2018), the response strategies used by government officials typically follow a hierarchical structure. Internal fiscal-slack techniques are preferred over external finance because they are more practical and allow organisations to benefit from information asymmetry arising from their greater organisational knowledge and access to insider information.

2.1. Research Questions

This research focuses on the growing reliance on the PBA as a source of unfunded debt, which threatens both pensioners' financial security and the sustainability of Pakistan's overall public debt, with significant long-term consequences for public finances and pensioners alike. As a preliminary study, it examines trends in key indicative variables that are likely linked to this problem: fiscal pressure on the government (through budget constraints), growth in overall domestic debt, and interest rates. Accordingly, the study aims to answer the following specific questions:

- How do fiscal deficits, overall domestic debt, and interest rates influence the government's reliance on unfunded debt when other financing options approach unsustainable limits?
- How has the growing need to finance the fiscal deficit through domestic borrowing from unfunded sources affected the PBA?

3. METHODOLOGICAL FRAMEWORK

The research examines the drivers of unfunded debt, focusing on domestic debt, the fiscal deficit, and interest rates as factors behind its recent sharp rise. Figure 4.1 illustrates the debt structure and the link between unfunded debt and the PBA. Mahmood and Rauf (2008) describe domestic debt repayment as being made from government rupee funds tied to current expenditure, thereby affecting fiscal space and development spending. In this case, however, PBA funds are used to repay domestic debt arising from fiscal stress. Akhtar (2007) notes that Pakistan uses monetary policy to address domestic issues, but large capital inflows and inflationary pressures lead the government to use pensioners' account funds to balance outflows. Furthermore, this study is based on government regulations that prevent pension funds from being invested in risky assets. It aims to: (1) examine how the government's use of pension funds to finance debt puts pensioners at risk; and (2) recommend alternatives to reduce the hazards of accumulating unfunded debt through pension funds, which could otherwise risk collapsing the pension system and worsening debt and deficit problems.

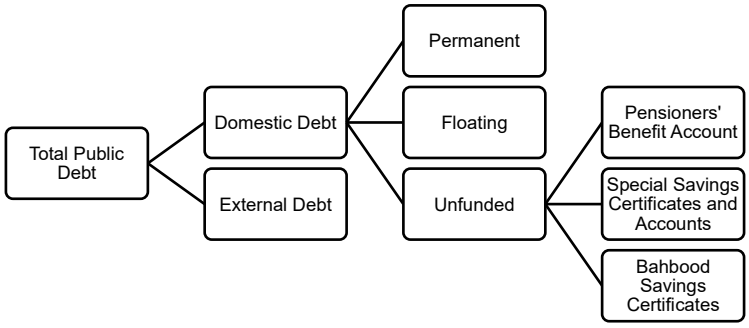


Figure 1: Public Debt Structure

4.1. Data and Variables

This section consists of a brief description of the data and the nature of the research, along with the precise definitions of the variables used in the regression model.

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4.1.1. Data Description

To conduct a relevant time-series analysis, data were collected for 1991–2022 from two main sources. This research is purely econometric and uses an empirical approach to examine the potential relationships among unfunded debt, the fiscal deficit, interest rates, and Pakistan's domestic debt. The aforementioned variables were standardised before estimation to improve accuracy and facilitate straightforward interpretation.

The variables are described in the table below:

Table 1

Variables Description

Variable	Definition	Data Source	Time Period	Unit
Unfunded Debt (UFD)	Short-term obligations (within a year or less) funded through National Savings Schemes, with contributions made directly by the current workforce (SBP, 2022)	Economic Survey of Pakistan; State Bank of Pakistan archival records	1991–2022	Rs. Billion
Outstanding Domestic Debt (ODD)	Repayment of debt from government (rupee) funds, forming part of current expenditure and affecting fiscal space, growth, and development expenditure (Mahmood and Rauf, 2008)	Economic Survey of Pakistan; State Bank of Pakistan annual reports	1991–2022	% of GDP
Overall Fiscal Deficit (OFD)	Shortfall between government income and spending; financed through domestic or external debt (study focuses on domestic channels)	Economic Survey of Pakistan	1991–2022	% of GDP (incorporates inflation and Rs. Billion)
Interest Rate (IR)	Used to examine the relationship between interest rates and unfunded debt, and why the government favours unfunded arrangements over routine market-based financing	State Bank of Pakistan	1991–2022	Percentage

4.2 Model Specification

Unfunded debt is a critical problem arising from the broader debt problem faced by any country. Therefore, to identify the factors responsible for changes in Pakistan's unfunded debt, it is important to examine variables that may shed light on the overall situation. The study investigates the problem in the context of the annual fiscal deficit, overall domestic debt—which changes according to how the deficit is financed—and interest rates, which can make routine market-based borrowing more difficult.

The model below is structured to capture the long-run and short-run effects of overall domestic debt, the fiscal deficit, and interest rates on Pakistan's unfunded debt. Many other factors may contribute, but this model was selected to maintain simplicity.

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$$\mathbf{UFD} = f\mathbf{(ODD, FD, IR)}$$

$$UFD_t = \alpha + \beta_1 FD_t + \beta_2 ODD_t + \beta_2 IR_t + e_t$$

$$\Delta UFD_t = a_0 + \gamma_1 FD_t + \gamma_2 ODD_t + \gamma_2 IR_t + \sum_{t=1}^{p} \emptyset_t \Delta FD_t + \sum_{t=1}^{p} \emptyset_t \Delta ODD_t + \sum_{t=1}^{p} \emptyset_t \Delta IR_t + \mu_t$$

4.3. Graphical Representation and Explanation

4.3.1. Unfunded debt and Outstanding Domestic Debt

The relationship between unfunded debt and domestic debt is shown in Fig. 3.2. Domestic debt rose gradually from 2000 onward, while unfunded debt began to grow rapidly at the same time. Because of the time lag, unfunded debt declines to some extent while the domestic-debt series continues to rise, although it stabilises somewhat around 2009–2010. Soon after 2009, however, both unfunded debt and domestic debt rise rapidly and continue to reach higher levels over time. These visuals indicate that unfunded debt has become a larger concern because of its positive and growing relationship with domestic debt. Owing to the government's consistent borrowing from domestic institutions, especially through schemes with high profit rates such as the NSS, domestic debt began to rise rapidly. From 1991, debt accumulation remained relatively contained. However, the increase in domestic debt coincided with the rise in unfunded debt from 2005 onward, with little improvement since then.

4.3.2 Unfunded debt and Fiscal Deficit

The unfunded-debt series remains the same as in the previous analysis; the fiscal deficit is the main point of concern here. A closer look at Fig. 3.3 shows that the fiscal deficit began to widen from 2004, while a steady rise in unfunded debt was also observed. Although the fiscal deficit fluctuated, it remained relatively high on the graph.

This unusually large fiscal gap could arise because the government uses a portion of the annual budget to repay domestic debt borrowed internally through schemes such as the NSS under unfunded arrangements. As funds from these accounts are used to address other debts and deficits, unfunded debt grows larger each year. Although unfunded debt has grown gradually over time, this trend is highly concerning because the government may not have the means to repay it.

4.3.3. Unfunded debt and Interest Rates

As with unfunded debt's relationship with the fiscal deficit, the graph shows that from 2004 onward, interest rates rose substantially while unfunded debt increased at a steady rate. As interest rates later decreased, unfunded debt continued to grow. This may be due to other factors, such as budgetary constraints, fiscal deficits, and debt servicing.

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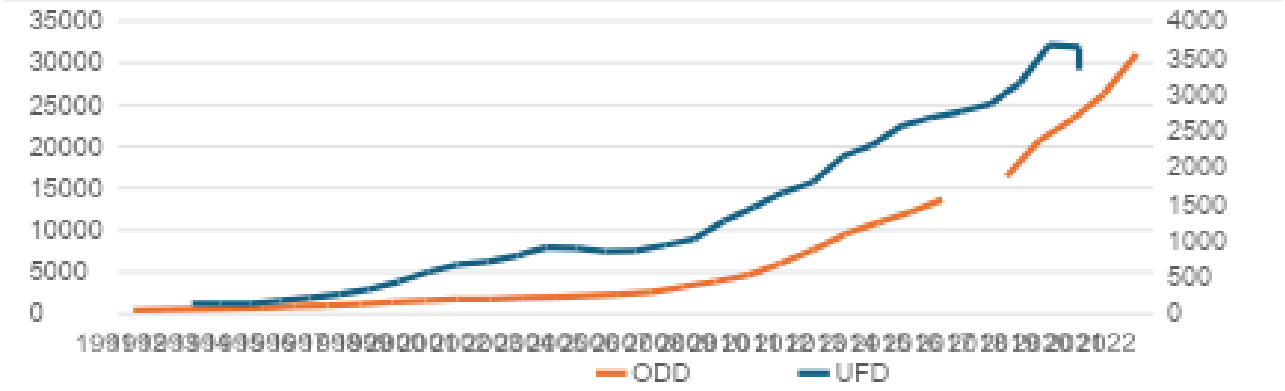


Figure 2: Relationship Trend of Unfunded Debt and Outstanding Domestic Debt

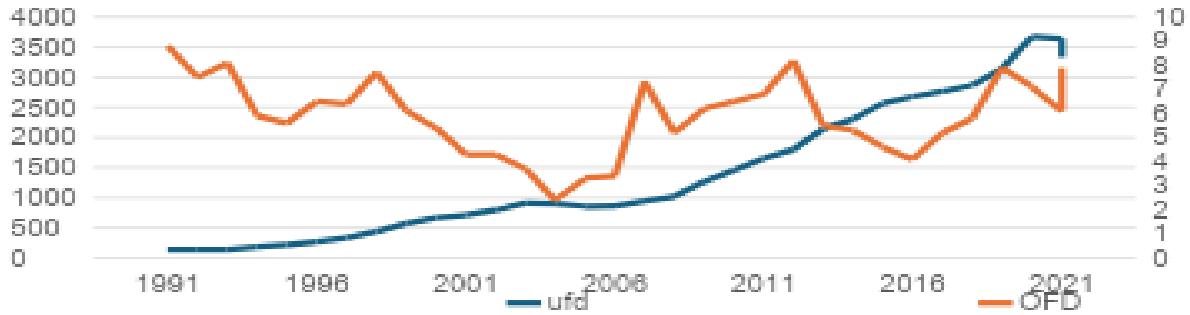


Figure 3: Relationship Trend of Unfunded Debt and Fiscal Deficit

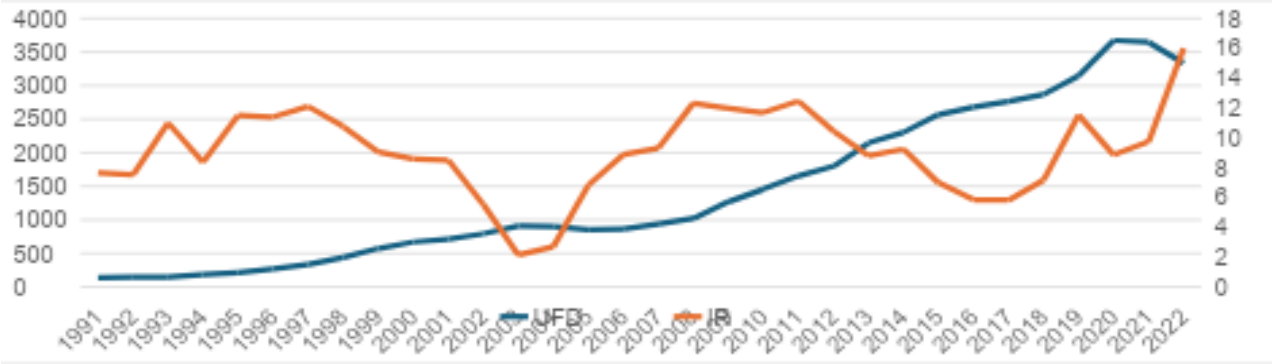


Figure 4: Relationship Trend of Unfunded Debt and Interest Rate

4.4 Econometric Technique

Variable stationarity was tested using the Augmented Dickey-Fuller (ADF) test, which indicated that the independent variables were stationary at I(1), while the dependent variable required second differencing, I(2), indicating a mixed-order model. The optimal lag length was then selected using the Akaike Information Criterion (AIC), followed by application of the Autoregressive Distributed Lag (ARDL) method, which provided cointegration relationships as well as long-run and short-run estimates. A long-run relationship between the predictors and unfunded debt was confirmed using the Pesaran/Smith/Shin (2001) Bounds Test, while the Vector Error Correction Model (VECM) assessed the short-run effects of domestic debt, changes in

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interest rates, and changes in the fiscal deficit on unfunded debt. Heteroskedasticity was assessed using the White test. Finally, a supplementary series analysis of the PBA estimated its contribution to UFD, ODD, and OFD. Together, these procedures were used to assess the model's reliability and validity.

5. FINDINGS AND DISCUSSION

5.1. Descriptive Statistics

Table 2

Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
lnUFD (Rs. Billion)	32	6.84	1.03	4.94	8.21
FD (% of GDP)	32	5.91	1.603	2.4	8.8
IR (%)	32	9.08	2.91	2.14	16
ODD (% of GDP)	30	40.38	7.35	2.4	16

Unfunded debt (in raw Rs. billion terms) averaged Rs. 1,419.1 billion, ranging from Rs. 140.2 billion in 1991 to Rs. 3,673.6 billion, with a standard deviation of Rs. 1,137.5 billion, indicating significant dispersion and rapid growth over time. The fiscal deficit averaged 5.91% of GDP, while the interest rate and outstanding domestic debt averaged 9.08% and 40.38%, respectively.

Rather than reflecting random volatility, the considerable dispersion of UFD signals a structural change in the government's financing strategy, consistent with the replacement of more expensive market-based borrowing by cheaper non-market, unfunded instruments to address fiscal crises. The average fiscal deficit of 5.91% of GDP is considerably above frequently cited sustainability levels for developing countries, suggesting a persistent rather than temporary fiscal imbalance. Furthermore, the average ODD-to-GDP ratio of 40.38% indicates that domestic borrowing plays a substantial role in financing government expenditure, with borrowing focused on meeting deficit-financing requirements rather than pursuing stabilisation objectives. These practices, in turn, shape the government's debt-management choices. This may also help explain the government's attraction to NSS instruments, which provide more administratively predictable and justifiable returns than market-linked debt because of differences in interest rates.

5.2 Unit Root (ADF) Test

The findings of the ADF test corroborated the existence of a mixed-order model. UFD became stationary at the second difference, whereas FD remained stationary at level, and IR and ODD became stationary at the first difference.

Table 3

Augmented Dickey-Fuller Unit Root Test Results

Variable	Order of Integration	p-value
lnUFD	I(2)	0.0000
FD	I(0)	0.0462
IR	I(1)	0.0002
ODD	I(1)	0.0000

UFD's behaviour suggests a slow-moving, structurally accumulating stock variable because of its higher-order integration at I(2). This is consistent with the characteristics of typical NSS borrowing, which accumulates gradually through ongoing public contributions to savings schemes rather than responding rapidly to unanticipated economic shocks. The unit-root results further support the use of the ARDL because of its ability to accommodate mixed integration orders that Johansen and Engle-Granger do not.

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5.3 Lag Selection (AIC)

Table 4

Lag Selection Criteria Prior to ARDL Regression

Variable	Optimal Lag
lnUFD	2
ODD	2
FD	1
IR	4

Lag selection for the ARDL technique supports model fit while reducing the risk of overfitting, indicating that the ARDL can capture underlying dynamics rather than noise.

5.4 ARDL Regression

Table 5

ARDL Regression Results

Overall model significance: $F = 988.77$ ($p < 0.05$); $R^2 = 0.9989$.

Variable	Lag	p-value	Coefficient	Relationship
ODD	1	0.036	0.008	Positive, significant
ODD	2	>0.05	—	Insignificant
ODD	3	<0.10	Negative	Weakly significant (10%)
FD	1	0.568	Negative	Insignificant
FD	2	0.400	Negative	Insignificant
IR	1	>0.05	—	Insignificant
IR	2	<0.05	0.024	Positive, significant

Since UFD is essentially a subset and financing channel within the broader domestic and fiscal debt framework, this relationship helps explain the model's very high explanatory power ($R^2 = 0.9989$). The positive and significant relationship between ODD and UFD supports the "path of least resistance" theory. As domestic debt rises and conventional borrowing instruments (T-bills, bonds, etc.) become more difficult or costly to obtain, the government may shift incremental borrowing toward unfunded instruments to avoid competitive market pricing and conditions. It is not surprising that FD remains insignificant under the ARDL framework because deficits are typically financed through a combination of external, floating, and unfunded debt. The VECM therefore captures this compositional shift more clearly than the ARDL model.

Although the positive relationship between IR and UFD at lag 2 may initially seem paradoxical because higher interest rates usually deter borrowing, it is consistent with the institutional dynamics of NSS instruments, whose rates are frequently revised in tandem with general interest-rate changes to remain attractive to savers. Therefore, a higher interest-rate environment can lead to higher NSS subscriptions and, consequently, greater unfunded-debt inflows. This eventually creates a substitution effect between market and non-market savings instruments.

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5.5 Bounds Test

Table 6

Bounds Test Results

Test	Statistic	Upper Bound (5%)	Conclusion
F-statistic	5.697	4.35	Long-run relationship exists
t-statistic	-3.694	-3.78	Long-run relationship confirmed

The bounds test results further indicate a long-run cointegrating relationship among UFD, ODD, FD, and IR, with the F-statistic exceeding the reported upper bound.

The fundamental linkage of UFD to ODD, FD, and IR is evident in its structural relevance rather than merely its role as a transient financing mechanism. This further supports the paper's main objective, which emphasises that Pakistan's public-finance structure has become deeply intertwined with outstanding debt, thereby strengthening reliance on PBA funds. In addition, because these variables are jointly linked in equilibrium, policy actions must address underlying drivers such as chronic deficits, interest-rate policy, and debt accumulation rather than focusing only on reshaping unfunded instruments in isolation.

5.6 Vector Error Correction Model (VECM)

The contrast between the model's short-run and long-run trends is notable. The findings suggest that unfunded borrowing functions as an immediate release valve when domestic debt-servicing pressures intensify, rather than as part of a progressively planned strategy, as indicated by ODD's short-run effect (despite its weaker long-run role in this case). Consistent with the "path of least resistance" theory, FD's short-run significance—contrary to its ARDL insignificance—suggests that fiscal slippages prompt relatively rapid recourse to unfunded financing. When deficits widen abruptly, UFD becomes an emergency safety net because it is quicker and easier to mobilise than new bond issuance or external financing.

Table 7

Vector Error Correction Model – SR and LR estimates

Variable	Term	p-value	Coefficient	Significance
ODD	Long-run	0.661	0.0186	Not significant
FD	Long-run	0.070	-0.5874	Significant (10%)
IR	Long-run	0.060	0.4948	Significant (10%)
ODD	Short-run, lag 1	0.041	0.007	Significant (5%)
ODD	Short-run, lag 2	<0.10	0.008	Significant (10%)
FD	Short-run, lag 1	0.092	0.0197	Significant (10%), positive
IR	Short-run, lag 1	<0.05	-0.03	Significant (5%), negative
IR	Short-run, lag 2	>0.05	reversed	Insignificant

Overall model significance: 0.8527 (85.27% of variation in UFD explained).

However, the positive long-run sign in the ARDL reversal lags suggests that the deterrent effect is not persistent. Instead, as interest rates continue to rise, adjustments to NSS rates strengthen the appeal of unfunded instruments. This highlights a legitimate policy tension: if NSS rates and interest rates rise simultaneously, measures intended to curb inflation or stabilise the currency may unintentionally exacerbate the unfunded-debt problem.

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5.7 Diagnostic Tests

Table 8

White test results

Test	Statistic	Interpretation
White test (heteroskedasticity)	$p > 0.05$	Homoskedasticity accepted

The White test was the only diagnostic test applied in this study to detect heteroskedasticity. The result supports homoskedasticity and the absence of problematic residual variance, strengthening the reliability of the ARDL/VECM estimates.

5.8 Pensioners' Benefit Account (PBA) – Series Analysis (2002–2022)

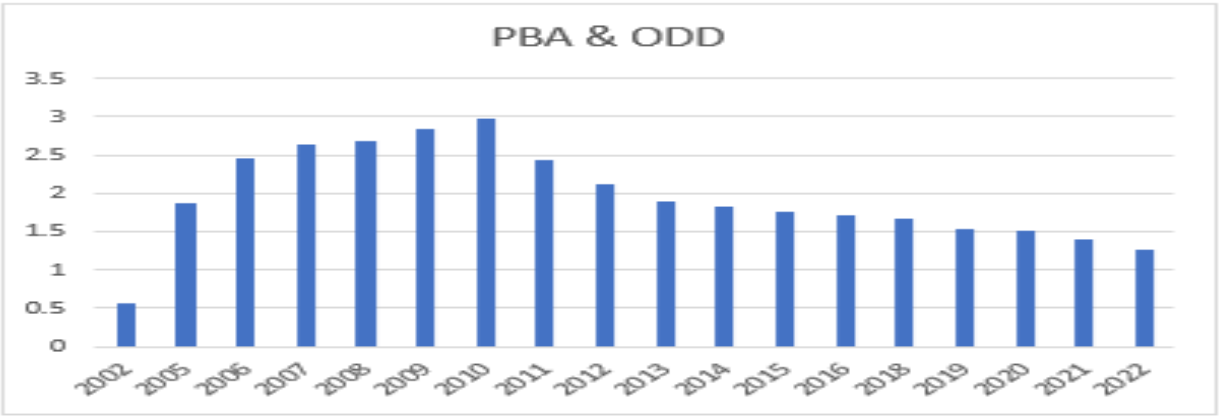
Table 9

Descriptive Statistics of PBA's Share in UFD, ODD, and OFD.

Statistic	% PBA in UFD	% PBA in ODD	% PBA in OFD
Mean	8.42	2.03	18.20
Median	8.66	1.88	18.56
Std. Dev.	2.09	0.57	3.55
Minimum	1.28	0.57	11.28
Maximum	11.71	2.97	24.44

The burden of Pakistan's unfunded pension system is illustrated by the steep increase in the PBA share of UFD beginning in 2005. The State Bank of Pakistan (2021) reported that pension costs rose at a compound annual growth rate (CAGR) of more than 14% between 2012 and 2023. With the support of foreign financing, privatisation earnings, and improved fiscal management, the PBA share of ODD increased significantly from the early 2000s into the 2010s before steadily declining through 2022. Finally, the PBA share of OFD fluctuated and eventually peaked around 2014–2015, suggesting that fiscal consolidation could inadvertently encourage deficits that are subsequently closed using NSS/PBA funds.

Pensioners' hard-earned contributions are increasingly being used by the government to finance its deficits rather than solely to ensure sustainable future pension payouts, as highlighted by the growing share of PBA funds in UFD. This pattern emphasises how government actions may place the unfunded, non-contributory pension system in financial and structural jeopardy. Because the PBA share of ODD is comparatively moderate and declining, the pattern suggests that PBA operations are concentrated within the unfunded-debt pathway rather than domestic debt more broadly, strengthening the view that this is targeted rather than inadvertent financing. Finally, the PBA share of OFD indicates its role as a discretionary fiscal-buffering tool that is accessed heavily during periods of fiscal crisis. This implies that Pakistan's pension system faces serious risks when government institutions are under financial strain, with potentially detrimental consequences for the security and sustainability of pensioners' savings.



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Figure 5: Percentage share of PBA in UFD

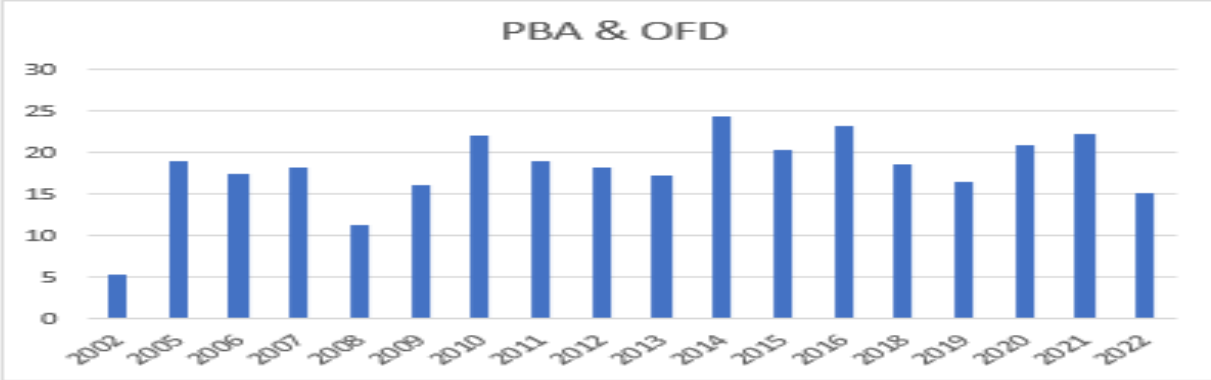


Figure 6: Percentage share of PBA in ODD

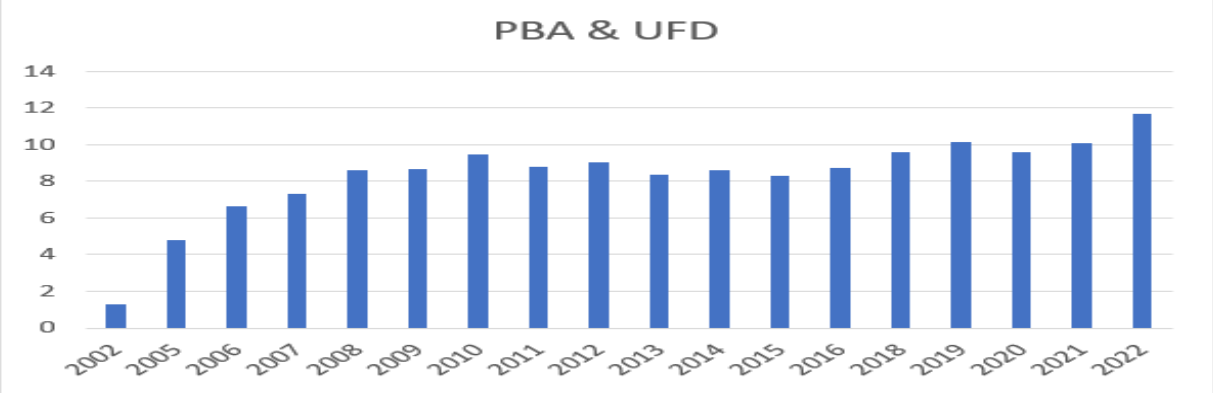


Figure 7: Percentage share of PBA in OFD

6. CONCLUSION AND RECOMMENDATIONS

Dawn (2020) reported that then-Prime Minister Imran Khan considered the rising pension bill a more urgent threat than the power sector's circular debt. In 2020, combined federal and provincial pension obligations were projected to reach Rs. 1 trillion—equal to a quarter of the FBR's total tax collection in the previous year. Federal pension payments (mainly military, excluding SOE benefits) had nearly matched the annual wage bill at Rs. 470 billion. Punjab's pension bill for FY20 (Rs. 250.7 billion) had grown by 24.1% annually since 2011, nearly rivalling development spending. Other provinces face similar pressures, raising the risk of eventual insolvency if these trends continue.

Four factors were identified: (a) an expanding public sector workforce, (b) rising life expectancy, (c) a flawed unfunded system allowing pensions to extend to children and grandchildren of retirees, and (d) inflation-linked benefit increases.

Khan proposed hiring foreign consultants for reform in 2020, but this followed decades of only minor adjustments with no structural change to Pakistan's unfunded, pay-as-you-go defined-benefit system. Dawn (2020) argued that future reforms must halt liability growth, reduce the current pension bill, and restructure the system toward self-sustainability—potentially by shifting

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to a fully funded, defined-contribution model (as successfully adopted elsewhere), while still guaranteeing a minimum post-retirement income.

According to Dawn (2024), Pakistan still relies on the unfunded, non-contributory system, unlike most countries that have shifted to funded or contributory models. Khyber Pakhtunkhwa (KP), under former finance minister Taimur Khan Jhagra, introduced Pakistan's first contributory pension scheme on July 1, 2022 (inspired by India's 2004 World Bank-backed reform, though a similar earlier attempt in Pakistan had failed). Despite this, the national pension bill reached Rs. 1.5 trillion in FY2024, one-third of which consisted of military pensions.

Key reforms implemented in KP included narrowing the previous 13-tier dependent-pension system to direct dependants only (the federal government followed suit, though other provinces have not); raising the minimum retirement age from 45 to 55 in KP and Punjab; cutting KP's pension bill by Rs. 20 billion; eliminating dual pension/salary payments by consolidating pensions into single payments; and launching a contributory scheme for new employees, with contributions of 12% from the government and 10% from employees. Since July 2022, 40,000 staff have been enrolled. Additional recommended reforms include revisiting the Universal Pay Scale (Grades 1–22) and addressing inconsistent, decoupled provincial pay structures. Despite these initial steps, a fundamental question remains: whether Pakistan's state finances can sustain pension payments over the next two decades in the absence of deeper, nationwide structural reform (Dawn, 2024).

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