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OPEN-ENDED MUTUAL FUNDS AS A TOOL TO STRENGTHEN THE NATIONAL ECONOMY: EVIDENCE FROM PAKISTAN IN THE PROSPECT OF BUDGET – 2026

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Abstract

The aim of this study is to explore the contribution of open - ended mutual funds in the improvement of Pakistan's national economy under the context of the Budget 2026. The paper investigates the relationship between the performance of mutual funds (measured as Net Asset Value (NAV) changes) and the macroeconomic variables such as gold prices, oil prices, exchange rate, and inflation, using time-series data over 12 years from 2010-2022. The ARDL model is used to capture the short run and long run dynamics. The findings suggest that the depreciation of exchange rates and inflation have both strong negative impacts on NAV, whereas gold prices have strong positive hedging effects. Oil prices have an ambivalent effect.The study has established the long-run cointegration of the variables and recommended that open-ended mutual funds are capable of functioning as the stabilizer of the economic growth. Policy recommendations are consistent with the priorities of Pakistan's Budget 2026.

Keywords: open-ended mutual funds, ARDL, NAV, Pakistan, macroeconomic variables, Budget 2026

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1. INTRODUCTION

Financial intermediation is an important function of the mutual fund industry, which mobilizes savings and uses them efficiently. In developing countries like Pakistan, open-ended mutual funds offer liquidity, diversification and are available for small investors. Although the Assets Under Management (AUM) are growing, macroeconomic conditions, especially inflation and exchange rate fluctuations, are still affecting fund performance.

The mutual fund sector in Pakistan has experienced steady growth, highlighting its substantial asset under management (AUM) over the past few years. But financial markets are constantly challenged by macroeconomic instability, as measured by inflation, exchange rate weakness, and commodity prices. This study adds to the policy debate by highlighting the potential of mutual funds as a policy instrument of economic stabilization under Budget - 2026, specifically the effect of macro-economic variables on the performance of mutual funds as reflected in the NAV. The study is aimed at examining the impact of gold prices, oil prices, exchange rates, and inflation on the performance of mutual funds in short run and long run period while working in Pakistan. As part of Budget - 2026, more attention is currently being paid to financial instruments that can better incentivize saving, stabilize markets and facilitate capital formation. This research places the open-ended mutual fund in a strategic economic role towards that end.

2. Literature Review

Numerous empirical studies seek to explain the link between macroeconomic indicators and mutual fund performance, especially in emerging markets.

Khan and Hussain (2023) discovered that inflation has a greater effect on reducing the returns from mutual funds because of the purchasing power loss. Likewise, during periods of economic uncertainty, Sharma and Singh (2023) found that gold positively affected the performance of mutual funds, supporting the idea of gold as a safer asset.

Ali et al. (2022) studied the impact of oil price volatility on mutual funds and found that its impact on mutual funds is indirect but substantial via macroeconomic transmission channels. The results imply that the dynamics of commodity prices have a complex relationship with investor behavior and fund flows.

In the context of emerging markets, Gyimah (2021) noted that exchange rate stability can have a long-term positive relationship with the performance of funds. Azis (2022) suggested that during the right conditions, inflation can have positive effects on the stock market, but overall it leads to volatility, which may have negative implications for fund investors.

Stock selection and market timing are important in assessing the performance of a mutual fund (Agarwal, 2018) and mutual fund investors systematically shift their investment in mutual funds according to the prevailing economic conditions (Jiangxi, 2014).

3. Methodology

Although copious research has been conducted, there are still gaps in the literature. There are limited studies specifically focused on the Pakistani context and very few studies that have studied the combined effect of gold price, oil price, exchange rate and inflation on the performance of mutual funds together. Moreover, the ARDL methodology to record both the short run and long run dynamics is still inadequate in the current literature on the mutual fund industry in Pakistan.

4. Data and Variables

This study has been conducted on secondary annual time series data was collected from World Development Indicators (WDI), Securities & Exchange Commission of Pakistan (SECP) and Pakistan Stock Exchange (PSX) from 2010 to 2022. Performance of the mutual fund is the dependent variable, which is measured in terms of NAV. Gold price (USD/oz), Oil price (USD/barrel), Exchange rate (PKR/USD), and Inflation (Consumer Price Index) are independent variables.

Table : 1

Variable	Symbol	Type	Source
Net Asset Value	NAV	Dependent	SECP
Gold Price	GP	Independent	WDI
Oil Price	OP	Independent	WDI
Exchange Rate	ER	Independent	PSX
Inflation (CPI)	INF	Independent	WDI

5. Model Specification

In this study, the ARDL model is used because it can be used for series with different orders of integration, which is the I(0) and I(1) in this case, and it is suitable for the data used in this study, namely time-series data. Furthermore, it can be used for small sample sizes and can estimate both short-run and long-run relationships, giving a full picture of the dynamics of the macroeconomic factors and the performance of mutual funds.

The functional form of the baseline model is:

$$NAV_t = \beta_0 + \beta_1 GP_t + \beta_2 OP_t + \beta_3 ER_t + \beta_4 INF_t + \varepsilon_t$$

The ARDL representation is expressed as:

$$\Delta NAV_t = \alpha_0 + \Sigma \alpha_i \, \Delta NAV_{t-i} + \Sigma \beta_i \, \Delta X_{t-i} + \lambda(NAV_{t-1} - \theta X_{t-1}) + \varepsilon_t$$

where λ is the error correction term and X represents the vector of independent variables.

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6. Estimation Procedure

The estimation procedure includes the following steps: (a) Augmented Dickey–Fuller (ADF) unit root test to check stationarity orders, (b) lag selection by Akaike Information Criterion (AIC), (c) ARDL estimation, (d) bounds test for cointegration, (e) Error Correction Model (ECM) estimation and (f) diagnostic tests – serial correlation, heteroskedasticity, Ramsey RESET and CUSUM stability test.

7. Results and finding of the study

1) Descriptive Statistics

NAV is on the rise which aligns with the growth of the mutual funds industry in Pakistan. The inflation rate showed high volatility, with a peak in 2022, and exchange rate depreciation was seen throughout the sample period.

Table 2:
Descriptive Statistics (2010–2022)

Variable	Mean	Std. Dev.	Min	Max
NAV	34.45	19.21	8.75	61.58
GP (USD/oz)	1450.32	210.44	1169.00	1790.00
OP (USD/bbl)	92.34	10.52	74.00	113.00
ER (PKR/USD)	106.75	9.88	96.00	121.00
INF (%)	8.85	4.91	2.52	19.87

2) Unit Root Test

The results of the ADF test for unit roots are shown in Table 3. The results show mixed orders of integration: GP, OP and INF are stationary at orders (I(0)), and NAV and ER at (I(1)). This mixed order of integration is enough to warrant the ARDL approach.

Table 3:
Augmented Dickey–Fuller Unit Root Test Results

Variable	Level	First Difference	Order
NAV	Non-stationary	Stationary	I(1)
GP	Stationary	—	I(0)
OP	Stationary	—	I(0)
ER	Non-stationary	Stationary	I(1)
INF	Stationary	—	I(0)

3) ARDL Estimation Results

The ARDL regression results are shown in Table 4. The exchange rate is negative and statistically significant on NAV in the short run and inflation is also negative and statistically significant on NAV. The price of gold exhibits a positive and statistically significant effect, which is in line with its safe-haven status in times of uncertainty. Oil price has a slight negative impact which is statistically significant.

Table 4:
ARDL Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GP	0.215	0.089	2.41	0.032**
OP	−0.143	0.075	−1.90	0.071*
ER	−0.356	0.102	−3.49	0.004***
INF	−0.281	0.094	−2.98	0.011**
Constant	5.672	2.113	2.68	0.019

Note:
$R^2 = 0.81$; Adjusted $R^2 = 0.76$; F-statistic = 14.32 ($p < .01$). *p < .10. **p < .05. ***p < .01.

4) Bounds Test for Cointegration

The bounds test turned out to be very important. It had an F-statistic of 5.87. This was higher than the critical bound at the 5 percent level. So it confirms that there is a run relationship between the variables of the long-run cointegrating relationship among the variables of the long-run cointegrating relationship. The run cointegrating relationship, among the variables is really there.

5) Long-Run Coefficients

Table 5 shows us the long-run coefficients. The gold price has an effect on the NAV it is about 0.31. This is what we would expect if the gold price is helping to reduce risk. The oil price is different it has an effect of -0.22. The exchange rate also has an effect of -0.45. Inflation has an effect too it is -0.37. All these things that are connected to the economy like the oil price and the exchange rate and inflation have long-run effects on the mutual fund performance. This means that when the economy is not stable it can hurt the mutual fund performance over time. The gold price is still important it has a long-run effect, on the NAV.

Table 5:
Long-Run Coefficients

Variable	Coefficient	Interpretation
GP	+0.31	Positive long-run effect
OP	−0.22	Negative long-run effect
ER	−0.45	Strong negative long-run effect
INF	−0.37	Negative long-run effect

6) Error Correction Model

The ECM coefficient is negative. It is statistically significant. This is shown by the numbers: ECM(−1) = −0.61. The p value is less than 0.001. This means that the ECM coefficient confirms the run equilibrium relationship.

The ECM coefficient tells us that 61 percent of any short-run deviation from the equilibrium is corrected within one year. This is a deal because it shows how the ECM coefficient works to correct deviations from the equilibrium, over time. The ECM coefficient is important because it helps us understand the run equilibrium relationship.

Diagnostic Tests

The diagnostic tests found out. The model did well on all the diagnostic tests. This means the model does not have any correlation it does not have any heteroskedasticity the model is specified correctly which is shown by the Ramsey RESET test and the model is structurally stable which is shown by the CUSUM test. The model passes all these tests.

Table 6:
Diagnostic Test Results

Test	Result
Serial Correlation (Breusch–Godfrey)	No issue
Heteroskedasticity (ARCH)	Absent
Ramsey RESET	Correct specification
CUSUM Stability Test	Model stable

8. Discussion

The results show that when the economy in Pakistan is not stable it directly affects the investment industry of the country . When the value of money in Pakistan goes down and prices go up people who invest in funds in Pakistan do not feel confident and the value of their investment in mutual funds in Pakistan goes down. Gold helps during times when the economy in Pakistan is not certain. These results are the same as what Khan and Hussain found in 2023. They said that when prices go up in Pakistan it affects the returns on investment in funds in Pakistan in a bad way. They are also the same as what Sharma and Singh found in 2023. They said that gold is good for investment in funds in Pakistan when the economy in Pakistan is not stable.

The bad effects of oil prices on the value of investment in funds in Pakistan are the same as what Ali and others found in 2022. They said that when oil prices go up and down it affects the economy in Pakistan and then affects the money that goes into funds in Pakistan. The results also support some ideas, including the Arbitrage Pricing Theory and some models that look at how the economy in Pakistan and finance are connected. These ideas say that big things that happen in the economy in Pakistan drive the returns on investment in funds in Pakistan.

The results of the ECM show that the mutual fund market in Pakistan can correct mistakes that happen in the term but it takes some time. About 61 % in a year. This means that the mutual fund market in Pakistan is fairly good at fixing problems. It could get better if the market, in Pakistan grows more and the rules that govern it are more stable.

9. Policy Implications

The results of this study have effects on the people who make decisions about Pakistani Budget - 2026 in many different areas. These people who make decisions, about Pakistani Budget - 2026 will really need to think about these results. They will have to consider what these results mean for Pakistani Budget - 2026.

10. Tax Reforms for Mutual Funds

The government must help people save money on term mutual fund investments by not taxing them. This can be done by giving tax exemptions on these investments. Also the government should lower the capital gains tax for people who invest in funds.

This way people will start saving more and investing for the term. It will also stop people from investing in things that're risky and not good for the economy. When people invest in funds their money goes into good projects and helps the economy grow.

The government can make it easy for people to invest in funds by making some changes, in the rules. This will help create a culture of saving and responsible investing.

11. Inflation Control

The Budget - 2026 should really focus on keeping inflation under control. Inflation has an impact on the investors when they invested so they make sure it does not get out of hand. When inflation is stable the actual investment is goes up. At this stage investors can buy more things with it. This means investors will want to invest in funds because they know their money will be safe and grow over time. The Budget - 2026 should make sure we have ways to control inflation so people can trust that their money will be worth something, in the future.

12. Exchange Rate Stabilization

The State Bank of Pakistan needs to do something about the exchange rate depreciation because it is really bad for the NAV. The State Bank of Pakistan should make some rules to stop the exchange rate from going down too much. If the exchange rate is more stable people will know what to expect. It will be better for the financial markets. This will also make investors feel more confident about putting their money in mutual funds. The exchange rate is a deal, for the NAV so the State Bank of Pakistan should really try to make it more predictable.

13. Financial Inclusion and Digital Investment

The Budget - 2026 should really help mobile-based mutual fund platforms work well with payment systems like Raast. This means more investors , those in the middle class and rural areas can invest in mutual funds. Mutual funds are a way for people to save and invest their money. If more people can use mobile-based mutual fund platforms it will be easier for them to invest. This will help get money from people, in our own country to invest in things that will help our country grow. The Budget - 2026 should make it easier for people to use mobile-based mutual fund platforms and digital payment systems like Raast to buy funds.

14. Capital Market Development

The government should think about using funds to finance infrastructure and create special funds guaranteed by the government. This could help reduce the pressure, on the government's budget and get private companies involved in financing national development. Mutual funds can act as a safety net during downturns and offer a more stable option compared to direct stock investments.

The government and mutual funds can work together to boost development financing. Government-backed fund schemes can also help attract private sector participation.

15. Conclusion

This study looked at how Open - ended mutual funds can help stabilize Pakistan's economy. It used a model called ARDL with data from 2010 to 2022. The results show that things like gold prices, oil prices, exchange rates and inflation affect how well mutual funds do.

The exchange rate and inflation have a negative impact. Gold prices help protect funds. The study found that these factors are connected in the run and adjust to equilibrium quickly. Open - ended mutual funds can really help Pakistan's economy by, Collecting savings from people, keeping capital markets stable, reducing the need for foreign financing, policymakers should include plans to develop funds in Budget - 2026. They can do this by, encouraging people to invest keeping the economy stable, making financial markets stronger. Open-ended mutual funds can help connect savings to growth. This makes them a powerful tool for Pakistan's development through open-ended mutual funds. The Open-ended mutual funds have strong potential and can serve as a bridge, between savings and economic growth.

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