

**FINANCIAL DEVELOPMENT AND UNEMPLOYMENT: THE ROLE OF  
PUBLIC SECTOR EXPENDITURE IN PAKISTAN**



Submitted by:

**MR. IHTESHAM UL HAQ**

Research Supervisor

**DR. SHER ALI**

**DEPARMENT OF ECONOMICS  
ISLAMIA COLLEGE PESHAWAR  
(SESSION 2021-2023)**

## **ABSTRACT**

This empirical study delved into assessing the impact of financial development and the role of public sector expenditure on unemployment in Pakistan. Annual time series data were used from the period of 1993 to 2022. Auto-Regressive Distributed Lag (ARDL) technique for co-integration employed to analyze the long run and short run parameters estimates for financial development and public sector expenditure in relation to unemployment. Bound Test confirmed stable long run relationship between the said variables. Error correction coefficient was negative and statistically significance which show the convergence towards long run equilibrium. In short run the variables Public sector Expenditure was found insignificant. This research study concluded that financial development had negative impact on unemployment in Pakistan in long run as well as in the short run. But public sector expenditure had negative impact on unemployment in long run but not effective in short run. This empirical study suggested that the policy maker should prioritize initiative that foster the development of financial sector , boost public expenditure , stock market dynamics, strength monetary policies, private sector credit accessibility, promote trade policies beneficial for employment, optimize government expenditure and long-term planing for government expenditure.

**Keywords:** Financial development, public expenditure, unemployment, Pakistan

## **I. INTRODUCTION**

### **1.1 Background of the study**

Pakistan economy, since its origin in 1947, has undergone various phases of development, growth and recession. Economic development and growth is characterized by its agricultural background, quickly growing urbanization, and an accelerative focus on tertiary sectors. However, what remains constant is the search for the right equilibrium between financial development and employment generation. Public expenditure, which represent government spending on various sectors like health, education and infrastructure plays a basic role in this dynamic. It's a double-edged sword: on one hand, it can boost up economic activity and create employment;

on the other hand, if not managed carefully, it can boost up fiscal deficits and potentially lead to degrade economic growth.

## **1.2 The Role of Financial Development**

Financial development bring up to the efficiency of a country's financial markets, financial systems and financial institutions. For Pakistan, this entails the establishment of robust capital markets, banks and non-bank financial institutions, and overall efficient financial system. On a wide scale, an advanced financial system facilitates efficient resource allocation, savings mobilization and risk management. These elements can boost economic growth and potentially reduced unemployment. However, the effectiveness of financial development in achieving these outcomes often relies heavily on the nature and extent of public expenditure.

## **1.3 Public Expenditure**

Pakistan serves public expenditure for different purposes. Firstly, public expenditure is an tool to stimulate demand. When the government spends money, it injects money into the economy, which can then create employment directly in infrastructure projects or public sector and indirectly, through the knock-on effects of boost economic activity. For instance, a government project to build roads, hospital, school not only employs construction workers but also boosts demand in related industries such as steel, cement, transport, medicine, book and school uniform etc.

## **1.4. Unemployment in Pakistan**

Unemployment remains a significant concern for Pakistan. Despite its youthful population, which could be a potential demographic dividend, the country grapples with providing adequate job opportunities. The challenge is twofold: creating new jobs and ensuring the existing workforce has the skills relevant for today's market. Public expenditure, in its role as an economic catalyst, can potentially bridge this gap, but its efficacy is contingent on the alignment with broader financial development goals.

Pakistan, a country with a rich tapestry of cultures, traditions, and histories, stands at a crossroads in the 21st century. The dynamics of its socio-economic landscape are colored by myriad factors, of which unemployment has emerged as a particularly salient issue. With a population crossing the 220 million mark, this South Asian

nation faces the monumental task of providing employment opportunities to its teeming millions, particularly the youth that form a substantial chunk of the demographic.

At the heart of Pakistan's unemployment dilemma are the intertwined challenges of a rapidly growing population and an economy struggling to maintain consistent growth. The demographic trends in Pakistan show that the majority of its population is below the age of 30. This youth bulge, while a potential source of dynamism and innovation, presents a double-edged sword. The urgency to equip this demographic with requisite skills and opportunities cannot be understated. Without the right strategies in place, the potential demographic dividend could turn into a demographic disaster.

## **II. LITERATURE REVIEW**

Financial development and public expenditure have long been the focal points for economists studying unemployment, particularly in developing economies like Pakistan. The complex interplay between these elements determines the economic health of a nation. This literature review will explore various studies and their findings regarding this relationship in the context of Pakistan.

The connection among financial development, public expenditure, and unemployment in Pakistan has been extensively examined over the last few decades. This literature review seeks to understand the nuances of this nexus and the suggestion for public policy.

The ascendancy of the financial sector in global economies, particularly since the 1990s, has been a consequence of financial globalization. Given the profound influence of the financial sector on whole economies, scholars have conducted extensive research to analyze its effects on different variables like income inequality, innovation, economic growth, volatility and unemployment. A essential structure of research has concentrated on the intricate relationship of economic growth and financial development, with many studies aligning with endogenous growth theories. Notable findings from various studies, including those by Hassan, M.K, Sanchez, B & Yu, J.S (2011), Caporale, G.M, Rault,C,Sova,A.D,& R (2015) and Cojocar, L, Falaris, E.M, Hoffman, S.D & Miller,J.B. (2016) consistently underscore the pivotal role of financial sector development in fostering long-term economic growth.

However, the relationship between unemployment and financial development has been explored to a lesser extent, with varying conclusions influenced by country-specific factors, study time frames, and methodological approaches. Macro-level studies on domestic investment's impact on economic growth have typically emphasized the positive effect of gross capital formation, as evidenced by studies such as Uneze, E. (2013) and Ongo, E. N., & Vukenkeng, A. W., (2014).

In a noteworthy study spanning 1980 to 2004, Gatti & Vaubourg (2009) examined the interplay of financial development and unemployment in selected OECD member countries, revealing a negative impact of stock market capitalization on unemployment. Similarly, the impact of credit provision by the financial sector to regulated labor markets was negative but exhibited in other cases impact is positive.

Contrastingly, Anwar et al, (2012) delved into the relationship between unemployment and financial development indicators in Pakistan from 1973 to 2007. Their use of auto-regressive distributed lag (ARDL) co-integration and Granger causality tests suggested a negative long-term impact of indicators such as financial assets stock, stock market capitalization and domestic credit provision on unemployment.

In Nigeria, Ilo (2015) examined the connection between capital market development and unemployment from 1986 to 2012, revealing that the relationship between unemployment and the stock market development or banking sector are not significant.

Lastly, Kadiri et al, (2015) explored the connection of unemployment and banking sector development in Nigeria used data from 1981 to 2013, fined out the relationship between banking sector development and unemployment were positive.

Financial systems play a key role in a country's economic. Studies from the late 1800s to early 1900s stressed the importance of finances in development. Most research, like the ones by Levine, Zervos, King, & Levine, showed that a thriving stock market and a well-developed banking system often lead to economic growth in short run and long run.

Researchers also noticed that in countries like Pakistan and China, while a developed financial system boosted long-term growth, it didn't always have a positive effect in the short term. Furthermore, when a country can effectively use foreign investments, its economy tends to benefit. However, political challenges can hinder this process.

### III Methodology of Analysis

This study aim to check financial sector development and unemployment: the role of public expenditure in Pakistan. In this regard, it uses time series data from the period of 1993-2022. To find out or testing the long run relationship among the variables. This study use ARDL estimator. Economics and Econometric field the researcher use this techniques for specific and general way to work. Therefore, it follows the following necessary steps include, firstly, unit root test are employed to check the time series data is stationary or non stationary, secondly, ARDL estimators are used to check long-run relationships among the variables. Thirdly, using statistical testing to find short term and long term coefficients. Finally, we check stability through CUSUMSQ and CUSUM.

#### 4.3 RESULTS

This section deals with results of econometric techniques which applied on selected variables on this research study. This research study have two ARDL models.

##### 4.3.1 Stationary Test:

After applying the Augmented Dicky Fuller (ADF) unit root test on selected variables. All variables are non stationary at level  $I(0)$  but all variables are stationary at first order  $I(1)$ . Pesaran and Shin (1995) suggested that if all data series are integrated of order  $I(0)$ ,  $I(1)$  or both but not series of order  $I(2)$ . Therefore, the choice of autoregressive distributive lag (ARDL) are more appropriate and efficient method for this type of data.

The result of stationary test are an below table.

**(ADF) Unit root test**

<b><u>At Level</u></b>							
		UE	BM	DCPSBB	SMC	GGFCE	TRADE
With							
Constant	T-Statistics	-2.04557	-1.87868	-0.86033	-2.96459	-2.280188	-2.451364
	Prob.	0.2669	0.3371	0.7862	0.0503	0.1847	0.1374
		no	no	no	no	no	no

With constant and trend	T-Statistic	-3.26014	-1.95002	-2.58612	-2.90954	-2.266177	-2.250388
	<b>Prob.</b>	0.0952	<b>0.6030</b>	<b>0.2887</b>	<b>0.1742</b>	0.4379	0.4460
		no	no	no	no	no	no
Without constant and trend	T-Statistic	-0.14821	-0.17445	-1.09304	-1.45001	-0.879449	-0.695593
	<b>Prob.</b>	<b>0.7215</b>	<b>0.6146</b>	<b>0.2421</b>	<b>0.1344</b>	0.3265	0.4068
		no	no	no	no	no	no
<b><u>At 1st Difference</u></b>							
		D(UE)	D(BM)	D(DCPBB)	D(SMC)	D(GGFCE)	D(TRADE)
With Constant	T-Statistics	-4.57278	-4.29914	-4.20075	-6.77174	-4.177651	-5.151024
	<b>Prob.</b>	<b>0.0011</b>	0.0023	<b>0.0029</b>	<b>0.0000</b>	0.0032	0.0003
		***	***	***	***	***	***
With Constant and Trend	T-Statistics	-4.59485	-4.23963	-4.147906	-6.64289	-4.223099	-5.123595
	<b>Prob.</b>	<b>0.0054</b>	<b>0.0121</b>	<b>0.0149</b>	<b>0.0000</b>	0.0130	0.0015
		***	***	***	***	***	***
Without Constant and Trend	T-Statistics	-4.63376	-4.38931	-4.183527	-6.88111	-4.236150	-5.272339
	<b>Prob.</b>	<b>0.0000</b>	<b>0.0001</b>	<b>0.0002</b>	<b>0.0000</b>	0.0001	0.0000
		***	***	***	***	***	***

### 4.3.2 Optimal Lag Length

The F-statistic in ARDL models is significantly influenced by the choice of lag length, making it imperative to employ appropriate information criteria, such as the Akaike Information Criterion (AIC), for lag length selection. In Model 1, a lag length of 2 is chosen, resulting in an AIC value of 20.84005 and a Schwarz Information Criterion (SIC) value of 23.45688. Meanwhile, Model 2 also adopts a lag length of 2, yielding an AIC value of 18.63067 and an SIC value of 21.24750. The Akaike information criterion (AIC) results for both models are presented in the tables below.

**Table-4.2**

**Optimal lag selection ( model 1)**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-360.3771	NA	148617.4	26.09836	26.33626	26.17109
1	-278.9833	127.9045	2736.909	22.07024	23.49760	22.50660
2	-236.7607	51.27028*	966.6501*	20.84005*	23.45688*	21.64004*

**Source:** Author's Estimation

**Table 4.3**

**Optimal lag selection**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-322.8043	NA	10151.29	23.41459	23.65248	23.48732
1	-247.6486	118.1017	291.8939	29.83204	21.25940	20.26840
2	-205.8294	50.78047*	106.1078*	18.63067*	21.24750*	19.43066*

**Source:** Author's Estimation

### 4.3.3 ARDL Bound Test of Co-integration

This methodology is employed to empirically determine whether a long-run relationship exists among variables. In consideration of previous studies and data requirements, the ARDL model is utilized to assess the potential impacts of financial development on unemployment and public expenditure on unemployment. This approach offers notable advantages, particularly in estimating small sample data, as applicable in the present study.



The Bound Test technique involves testing the null hypothesis of no co-integration using joint F-statistics. If the F-statistic exceeds both the upper and lower bounds at a specific level of significance, it indicates a long-run relationship or co-integration. Conversely, if the F-statistic falls below either the upper or lower bounds, it suggests the absence of a long-run relationship between variables. F-statistic values within the bounds yield inconclusive results, necessitating further analysis.

For Model 1, examining the relationship between financial development and unemployment, the results in Table 4.4 indicate an F-statistic value of 9.517669. At all levels of significance, this value surpasses the upper bound critical value, signifying the presence of a long-run relationship in the model. In conclusion, the analysis suggests that financial development has an impact on unemployment in Pakistan.

In Table 4.5, presenting the bounds test results for Model 2, which considers the influence of both financial development and public expenditure on unemployment in Pakistan, the F-statistic value is 11.12527. This value exceeds all lower and upper bound critical values at all levels of significance, indicating a long-run relationship in the model. Therefore, it can be inferred that both financial development and public expenditure collectively affect unemployment in Pakistan. To sum up the analysis, it is concluded that financial development independently influences unemployment, and the combined impact of financial development and public expenditure also contributes to unemployment in Pakistan.

**Table 4.4**

<b>F-Bounds Test (Model-1)</b>				
Test-Statistic	Value	Signi.	I(0)	I(1)
F-Statistic	9.51766	10%	2.2	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

**Source:** Author's estimation

**Null Hypothesis:** No levels relationship.

**Table 4.5**

<b>F-Bounds Test (Model-2)</b>				
Test-Statistic	Value	Signi.	I(0)	I(1)
F-Statistic	11.12	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

**Source:** Author's estimation

**Null Hypothesis:** No levels relationship.

#### 4.3.4 Coefficient of ARDL Model Long Run and Short Run

##### 4.3.4.1. Model 1 Long Run Result

###### **Dependent Variable: UE**

The Bounds test-statistic results indicate a long-run relationship between financial sector development and unemployment in Pakistan. Model 1, focusing on the analysis of financial sector development and unemployment, is detailed in Table 4.6. The R<sup>2</sup> value of 88% underscores the overall significance of the model, implying that 88% of the changes in the dependent variable are explained by the explanatory variables.

Table 4.6 provides the long-run coefficients for financial development and unemployment. The coefficient stock market capitalization (SMC), broad money(M2), trade are negatively effect unemployment in Pakistan. Domestic credit to private sector by banks (DCPSBB) show positive effect on unemployment but the result is insignificance.

Table 4.7 show short-run coefficients for financial development and unemployment. SMC, DCPSBB, TRADE are negatively effect unemployment in short run. M2 negatively effect unemployment in short run but result is insignificance.

**Table 4.6**

###### **Long Run Coefficient: Model 1**

Variables	Co-efficient	Std.Error	T-Statistic	P-Value
SMC	-0.059087	0.020691	-2.855649	0.0114
M2	-0.084881	0.036133	-2.349144	0.0320
DCPSBB	0.067325	0.034705	1.939922	0.0702
TRADE	-0.173178	0.036284	-4.772889	0.0002

C	15.65621	1.683225	9.301314	0.0000
---	----------	----------	----------	--------

#### 4.3.4.1. Short Run Result

**Table 4.7**

##### **Short Run Coefficient: Model 1**

Variable	Co-efficient	Std.Error	T-Statistic	P-Value
D(SMC)	-0.016357	0.005397	-3.030866	0.0080
D(SMC(-1))	0.036678	0.005995	6.117778	0.0000
D(M2)	-0.014845	0.015883	-0.934642	0.3639
D(DCPSBB)	-0.060014	0.030123	-1.992311	0.0637
D(TRADE)	-0.082221	0.021343	-3.852370	0.0014
D(TRADE(-1))	0.095393	0.022424	4.254103	0.0006
CointEq(-1)*	-0.629319	0.072691	-8.657462	0.0000
R <sup>2</sup>	0.888747	Mean dependent var		0.048571
Adj. R <sup>2</sup>	0.856961	S.D. dependent var		0.607610
S.E. of regression	0.229801	Akaike info criterion		0.109115
Sum squared resid	1.108982	Schwarz criterion		0.442166
Log likelihood	5.472391	Hannan-Quinn criter.		0.210932
D-W Statistic	2.647853			

**Source:** Author's estimation

#### 4.3.4.2. Lung Run Results: Model 2

##### **Dependent Variable UE**

##### **ARDL Long Run and Short Run Co-efficient**

Tables 4.8 and 4.9 present the long-run and short-run estimations of Model 2, which focuses on the relationship between financial development, public expenditure, and unemployment in Pakistan.

In Table 4.8, the long-run co-integration results are outlined. The  $R^2$  value of 0.880952 indicates that 88% of the changes in unemployment in Pakistan can be attributed to the regressors included in the model. Broad money (M2), stock market capitalization (SMC), general government final consumption expenditure (GGFCE) and trade (TRADE) are negatively effect unemployment in Pakistan in long run.

Table 4.9 show short run result of model 2 the result indicate that SMC, TRADE are negatively effect unemployment in short run. M2 negatively effect unemployment in short run but the results is insignificance. GGFCE variable are automatically remove from the model by econometric view software in short run analysis. Because its can not effect unemployment in short run.

**Table 4.8**

**Long run Coefficient: Model 2**

Variables	Co-efficient	Std.Error	T-Statistic	P-Value
M2	-0.082262	0.027303	-3.012951	0.0078
SMC	-0.037324	0.013899	-2.685277	0.0156
GGFCE	-0.229087	0.077126	-2.970306	0.0086
TRADE	-0.090252	0.023524	-3.836558	0.0013
C	16.26003	1.218125	13.34841	0.0000

**4.3.4.2 Short Run Result Model 2**

**Table 4.9**

**Short-Run co-efficient: Model 2**

Variables	Co-efficient	Std.Error	T-Statistic	P-Value
D(M2)	-0.018683	0.015552	-1.201359	0.2461
D(SMC <sub>-1</sub> )	-0.019915	0.005029	-3.960387	0.0010
D(SMC(-1))	0.025674	0.005439	4.720149	0.0002
D(TRADE)	-0.081119	0.019997	-4.056524	0.0008
D(TRADE(-1))	0.104541	0.022097	4.730912	0.0002
CointEq(-1)*	-0.755250	0.081259	-9.294321	0.0000
$R^2$	0.880952	Mean Dependent Var		0.048571
Adjusted $R^2$	0.853895	S.D. Dependent Var		0.607610
S.E Of Regression	0.232251	Akaike Info Criterion		0.105414

Sum Square			
Residual	1.186692	Schwar Criterion	0.390886
		Hannan-Quinn	
Log Likelihood	4.524208	Criterion	0.192685
Durbin-Watson			
Stat	2.472499		
<b>Source:</b> Author's Estimation			

#### **4.3.5 Post Diagnostic Tests:**

The diagnostic tests encompassed assessments for serial correlation, heteroscedasticity, and stability.

The outcomes of the post diagnostic tests are summarized in below table:[Include the actual outcome from the table]

##### **4.3.5.1 Serial Correlation Test**

Model 1 and model 2 the t-statistic value and corresponding p-value show the the both model have no serial correlation problem.

##### **4.3.5.2 Hetroscadasticity test**

Model 1 and model 2 the t-statistic value and corresponding p-value show the the both model have no hetroscadasticity problem.

##### **4.3.5.3 Stability test:**

Essentially, a stable model is indicated when the blue line on the graph falls between the two red lines. Conversely, if the blue line deviates outside the range of the two red lines, it suggests model instability. The graphical results of the CUSUM test and CUSUM square test for Model 1 and Model 2 can be observed in Figure 4.2,4.3,4.4 and 4.5.

The outcomes of these tests reveal that both Model 1 and Model 2 in this research study exhibit sufficient stability. This implies that the models can reliably predict the impact of financial sector development and public expenditure on unemployment in Pakistan.

**TABLE 4.10: Diagnostic Test For Model 1**

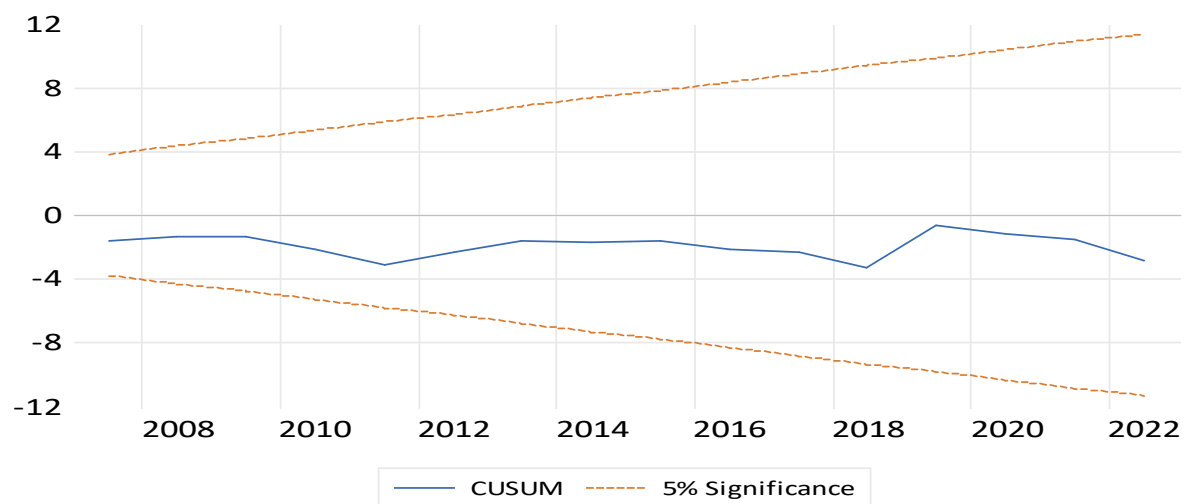
Test	T-Statistic	P-Value
Serial Correlation (Breusch-Godfrey Serial Correlation LM)	1.773550	0.2058
Heteroscedasticity (Breusch-Pagan-Godfrey)	0.948433	0.5236

**TABLE 4.11: Diagnostic Test: Model 2**

Test	Test-Statistic	P-Value
Serial Correlation (Breusch- Godfrey Serial Correlation LM)	1.559288	0.2425
Heteroscedasticity (Breusch-Pagan-Godfrey)	1.473509	0.2317

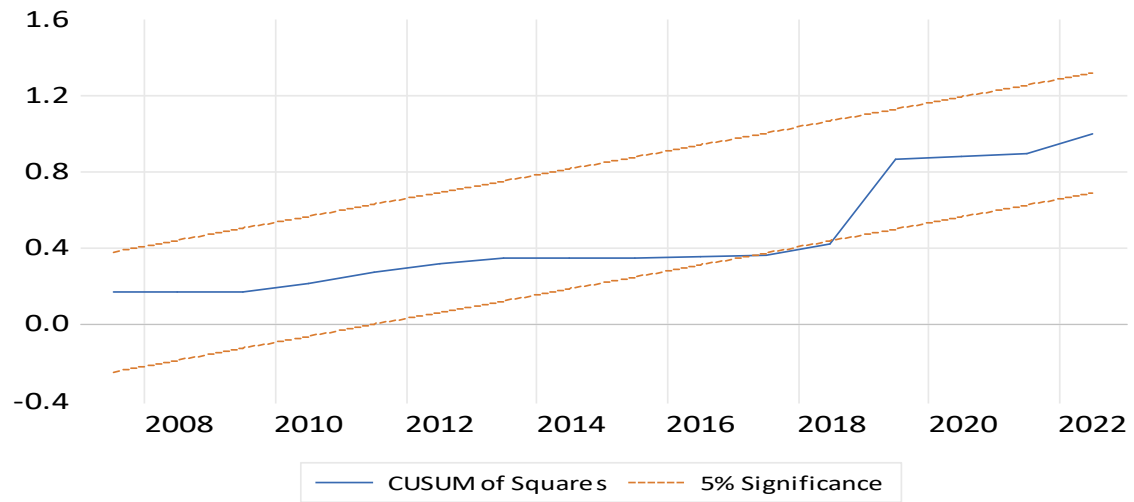
**CUSUM Test Model 1**

Figure 4.2



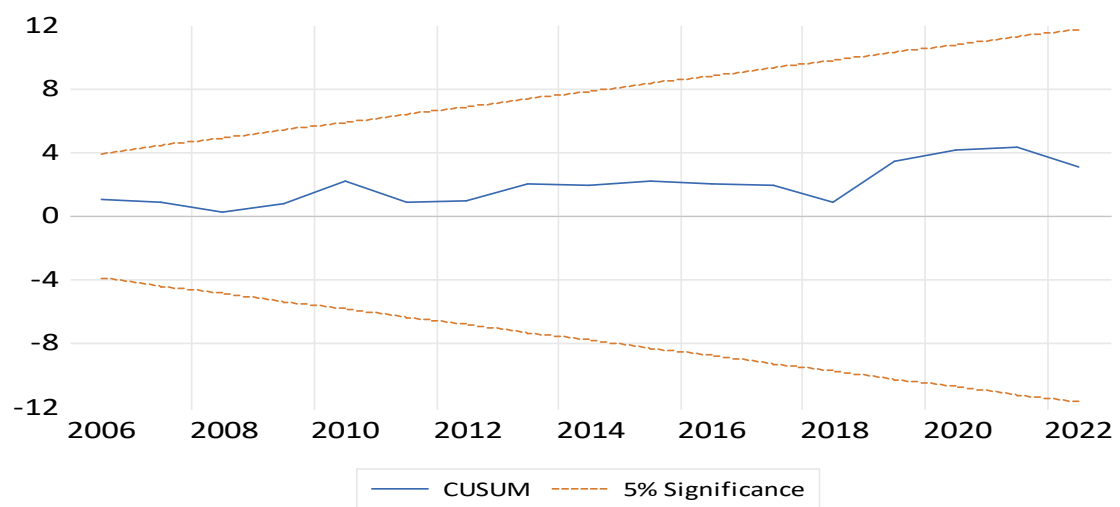
### CUSUM SQUARE Test for Model-1

Figure 4.3



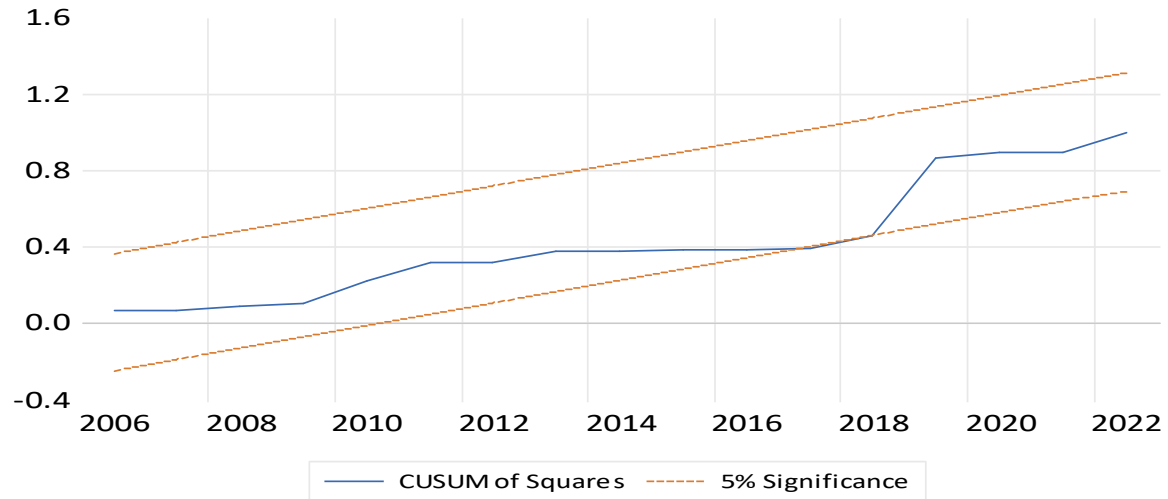
### CUSUM Test for Model-2

Figure 4.4



## CUSUMSQUARE Test for Model 2

Figure4.5



### 5.3 CONCLUSION AND POLICY RECOMMENDATION

In conclusion, the study has employed various statistical operations to diagnose key macroeconomic variables concerning the Pakistan economy. The empirical analysis yields the following summarizations:

Financial development and public expenditure exhibits a significant impact on unemployment in Pakistan. A developed financial sector and increased public expenditure are associated with a decrease in the unemployment rate. Stock market capitalization (SMC) demonstrates a negative long-term effect on the unemployment rate. Broad money (M2) exhibits inverse (negative) long term effect on unemployment. Domestic credit to the private sector by banks (DCPSBB) shows a positive impact on the unemployment rate, although the result is statistically insignificant. Trade demonstrates inverse (negative) effect on unemployment in long-term. General government final consumption expenditure (GGFCE) impact in long run on unemployment is negative, but in short run its not effective. This limitation is attributed to government expenditure projects nature, which are predominantly long-term and, as such, require an extended period to manifest significant effects.



In summary, the study underscores the intricate relationships between financial development, public expenditure, and various macroeconomic variables, shedding light on both short-term and long-term impacts. These findings contribute valuable insights for policymakers aiming to address unemployment and promote economic stability in Pakistan.

## **POLICY RECOMMENDATION**

Based on the study's findings, several policy recommendations can be proposed to address unemployment and promote economic stability in Pakistan:

### **1. Encourage Financial Sector Development:**

Policymakers should prioritize initiatives that foster the development of financial sector. This may involve implementing reforms to enhance the accessibility and efficiency of financial market, encouraging innovation in financial services, and ensuring a supportive regulatory environment.

### **2. Boost Public Expenditure:**

Increase public expenditure strategically, focusing on projects that have both short-term and long-term economic impacts. This could involve investing in infrastructure projects, education, and healthcare to create immediate employment opportunities while contributing to long-term economic development.

### **3. Monitor Stock Market Dynamics:**

Authorities should closely monitor stock market dynamics and implement measures to mitigate negative impacts on the unemployment rate. This could involve regulatory measures to ensure fair and transparent stock market operations.

### **4. Strengthen Monetary Policies:**

Monetary policies should be designed to maintain stability in broad money (M2) and prevent adverse effects on unemployment. Central banks should carefully consider the implications of monetary decisions on the broader economy.

### **5. Enhance Private Sector Credit Accessibility:**

Efforts should be made to enhance the accessibility of credit to private sector by banks. This may involve reviewing lending practices, reducing bureaucratic hurdles, and creating incentives for banks to help all types of enterprises.

### **6. Promote Trade Policies Beneficial for Employment:**

Trade policies should be designed to support job creation. Policymakers should focus on trade agreements that foster economic growth and employment opportunities, ensuring that the benefits of trade are distributed equitably.

### **7. Optimize Government Expenditure:**

While recognizing the long-term benefits of government expenditure, efforts should be made to optimize the efficiency of spending. This may involve periodic reviews of projects, ensuring they align with economic development goals, and exploring ways to expedite the implementation of vital projects.

### **8. Long-Term Planning for Government Expenditure:**

Acknowledging the time lag associated with government expenditure projects, policymakers should engage in long-term planning. Establishing clear project timelines and allocating resources efficiently can contribute to more effective short-term and long-term outcomes.

By implementing these policy recommendations, Pakistan can work towards mitigating unemployment, fostering economic growth, and achieving greater stability in its economy. It is essential for policymakers to adopt a comprehensive and coordinated approach to address the complex interplay of factors influencing the labor market and overall economic health.

### **References**

- Caporale, G. M., Rault, C., Sova, A. D., & Sova, R. (2015). Financial development and economic growth: Evidence from 10 new European Union members. *International Journal of Finance & Economics*, 20(1), 48-60.
- Cojocaru, L., Falaris, E. M., Hoffman, S. D., & Miller, J. B. (2016). Financial system development and economic growth in transition economies: New empirical evidence from the CEE and CIS countries. *Emerging Markets Finance and Trade*, 52(1), 223-236.
- Hassan, M. K., Sanchez, B., & Yu, J. S. (2011). Financial development and economic growth: New evidence from panel data. *The Quarterly Review of economics and finance*, 51(1), 88-104.
- Ongo, E. N., and Vukenkeng, A. W., 2014. Does gross capital formation matter for economic growth in the CEMAC sub-region? *Euro Economica*, 33(2), 69-77.

- Uneze, E. (2013). The relation between capital formation and economic growth: evidence from sub-Saharan African countries. *Journal of Economic Policy Reform*, 16(3), 272-286.
- Shabbir, G., Anwar, S., Hussain, Z., & Imran, M. (2012). Contribution of financial sector development in reducing unemployment in Pakistan. *International Journal of Economics and Finance*, 4(1), 260-268.
- Ilo, B. M. (2015). Capital market and unemployment in Nigeria. *Acta Universitatis Danubius. Œconomica*, 11(5), 129-140.
- Ogbeide, F. I., Kanwanye, H., & Kadiri, S. (2015). The determinants of unemployment and the question of inclusive growth in Nigeria: Do resource dependence, government expenditure and financial development matter?. *Montenegrin Journal of Economics*, 11(2), 49.
- King, R. G., & Levine, R. (1993). Finance and Growth: Schumpeter Might be Right. *The Quarterly Journal of Economics*, 108(3), 717-737.
- Levine, R. (1997). Financial development and economic growth: views and agenda. *Journal of Economic Literature*, 35, 688-726.
- Levine, R., & Zervos, S. (1998). Stock markets, banks, and economic growth. *American economic review*, 88(3) 537-558.