Global Journal of Management, Social Sciences and Humanities 191
Vol 10 (2) April-June, 2024 pp. 191-219 ISSN 2520-7113 (Print), ISSN 2520-7121 (Online)
www.gjmsweb.com. DOI: 10.6084/m9.figshare.26853853 / GJMSSAH/10/2/2024/2
Impact Factor = 5.96 (2022)

Research Article

DEBT, INFLATION, JOB DESTRUCTION AND ITS IMPACT ON ECONOMIC WELL-BEING

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Abstract

This study aims at examining relationship between public debt, unemployment, government consumption expenditures, trade in services, inflation and economic well-being through statistical analysis using time series data spanning from 1991 to 2021. Life expectancy, which is proxied for economic well-being, is dependent variable, while public debt, unemployment, inflation, government consumption expenditures, trade in services were independent variables. Different econometric techniques, such as Correlation matrix, and ARDL Model were used to determine relationship between these variables. The findings reveal a negative relationship between public debt, trade in services and inflation with life expectancy while unemployment in youth and the Government consumption spending have a positive association with it. The study suggests that policymakers should prioritize public spending to reduce unemployment in youth and reduce public debt, trade in services deficit and inflation to reduce stress on economy and the people.

Key words: public debt; trade in services; Inflation; unemployment; Life expectancy.

Article History: Received: Jan 20,2024, Accepted: March 15, 2024. Online published: April 01,.2024.

1. Introduction

The issue of foreign debt has been a topic of intense debate in recent times, but the focus on domestic debt and its implications for research and economic planning in Pakistan has taken central stage. While external debt has historically received its sufficient attention, the associated risks and challenges of internal debt in emerging nations remained unaddressed until the late 1990s. The research on the impacts of domestic debt on Pakistan's economic conditions has been notably insufficient, with a predominant concentration on studies related to external debts. The term "external debt" has, since the sovereign debt crisis of the 1980s and 1990s, become synonymous with the economic challenges faced by emerging nations, a concept that is now widely pervasive, embraced by various entities, including the media. According to the World Bank (2001), Pakistan is categorized as one of the highly Indebted Countries (HICs), facing a dire current and future debt vulnerabilities and threat of sovereign default (Khemais,2018).

1.1 Background of study

Before the early 1970s, the external debt of developing nations was a relatively minor issue, primarily involving foreign governments and international financial organizations providing loans for development projects. However, there has been a significant shift in the economic landscape of Pakistan, marked by a dramatic increase in inflation rates. Over the past year, the Whole sale Price Index (WPI) has surged by an annual average rate of more than 30% in 2023, making the lives of people miserable. The spike in costs of living has raised concerns not only in common man but also captured the attention of the elite class as well. Inflation rates in the 1960s averaged was a mere 2.6 percent, with food, raw materials, manufactured goods, fuel, and lubricants—all key

components of the WPI—experiencing annual growth rates ranging between 2.0 and 3.4 percent. However, the 1970s witnessed double-digit inflation due to significant oil shocks, currency devaluation, and catastrophic floods that disrupted agricultural output. The 1980s brought single-digit inflation once again, except for 1990-1991 when the Gulf War pushed inflation up to 11.7 percent. However, the current fiscal year presents a renewed and significant threat to macroeconomic stability, as inflation continues to rise. Similarly, trade deficit, unemployment in youth, and volume of government consumption expenditures are continued to rise, producing serious issue of debt payment, pressure on foreign exchange and difficulty in carrying out development projects particularly education and health-related projects. These factors have been affecting the economic wellbeing of the people. The relationship between growth rate and life expectancy in Pakistan is exhibited in Table 1.

Table 1: Life Expectancy in Pakistan (1991-2024)

Year	Life Expectancy	Growth Rate
1991	60.22	0.500%
1992	60.52	0.490%
1993	60.82	0.490%
1994	61.09	0.440%
1995	61.36	0.440%
1996	61.62	0.440%
1997	61.89	0.430%
1998	62.16	0.430%
1999	62.42	0.410%
2000	62.67	0.410%
2001	62.93	0.410%
2002	63.18	0.410%

Year	Life Expectancy	Growth Rate
2003	63.44	0.410%
Year	**Life Expectancy**	**Growth Rate**
2004	63.65	0.330%
2005	63.86	0.330%
2006	64.07	0.330%
2007	64.28	0.330%
2008	64.49	0.330%
2009	64.80	0.470%
2010	65.10	0.470%
2011	65.41	0.470%
2012	65.71	0.470%
2013	66.02	0.470%
2014	66.22	0.300%
2015	66.42	0.300%
2016	66.62	0.300%
2017	66.82	0.300%
2018	67.02	0.300%
2019	67.17	0.230%
2020	67.33	0.230%
2021	67.48	0.230%
2022	67.64	0.230%
2023	67.79	0.230%
2024	67.94	0.220%

Source: https://www.macrotrends.net/globalmetrics/countries/PAK/pakistan/life-expectancy'>Pakistan Life Expectancy 1991-2022.

Keeping in view the above discussion, the main objective of this study is to investigate into the causes of high volume of public debt, high inflation rate,

trade deficit: and government consumption expenditures on economic well-being (life expectancy) in Pakistan. This enables us to understand the complex relationship between these variables and their impact on Pakistan economy.

This study contributes in the existing body of knowledge in many ways. It will provide guidance to policymakers to realize the negative impact of high volume of external debt and high inflation on the living standard of people, who have been facing hardship due to high taxation and energy prices. The study will also provide guidance to the policymakers to use government spending as a development tool to reduce unemployment and allocate more resources for development projects particularly for education and health projects to improve the well-being of people and alleviation of poverty.

2. Literature Review and hypotheses development

The literature review plays a vital role in determining the studies in the context of existing study in order to attain guideline to improve existing study. The previous relevant studies provide insights about the relationship between variables their impacts on society and the economy. In the light of previous studies, the author can improve his methodology and results as well as to create novelty in his study. Now we critically analyze relevant studies.

Taner (2011) analyzed the effects of unemployment in underdeveloped countries and concluded that high unemployment in youth involves it to non-productive activities like crime, suicidal bombing and terrorist activities. The findings of this study is also highlighted the negative effects of youth unemployment on the society but its implications lack policy implications. Fattah and Muji (2012) examined the effects of Government spending on human development resources. This study underscores the allocation of funds for uplift of human resources. However, the finding of this study is limited

scope because it did not carry out comparative analysis with other regions. Khan (2012) has analyzed inflation and its socio-economic consequences. It also highlighted how high inflation rate affects different segments of the society and make the lives of low- and fixed-income people miserable. This study did not offer any comprehensive solutions how to control inflation and reduce its effects on the society. Dang (2016) explored relationship between budget deficit and human development in Nigeria. This study also analyzed the positive role of funds allocation for improvement of human capital. However, this study was failed to suggest any effective solution how to raise allocation of funds for human resources development. Yolanda (2017) examined the effects of inflation on human development and level of poverty in Indonesia, He contended that high inflation adversely affected Indonesian economy and increased poverty. While this study provides a valuable insight about the relationship between inflation and poverty but it did not provide any effective policy options how to control inflation and reduce its impact on the level of poverty. Obebor (2020) analyzed relationship between inflation, poverty and standard of living in Nigeria and counted the adverse long-term effects of inflation on living standards. The study provides essential knowledge for Nigeria but lacks a comparative perspective. Mohammad (2020) explored relationship between deficit-financing and human development in Nigeria, and underscoring the need for judicious use of borrowed funds. Runtunuwu (2020) investigated into the relationship between macroeconomic variables and unemployment emphasizes the negative impact of unemployment on the human development index. The study highlighted the importance of infrastructure but lacks a broader comparative analysis. Khan et al. (2021) investigated into the factors influencing trade in SAARC nations

and underlined the importance of infrastructure and domestic consumption. It provides regional insights. Maria et al.'s (2021) explored relationship between economics growth and deficit financing in Nigeria and underscored the significance of using borrowed funds judiciously. The study offered valuable insights for Nigeria but lacks an international perspective. Priambodo (2021) scrutinized the effects of unemployment and poverty on the human development index and economic growth, highlighting the negative impact of poverty on human development. The study provides essential insights but lacks a comprehensive global context.

2.1 Research gap and Novelty of study

The literature review offers valuable insights into the interconnectedness of economic variables and human development and also highlighted many gaps. The existing gaps in the literature include lack of global comparative analysis, lack of potential policy solutions, long term effects of variables such as external debt. There is need to conduct research to provide a more holistic view of how economic variables influence not only individual nations but also interconnected global economy. The current research aims to bridge these gaps and provide a more holistic view of complex relationships between different variables and their impacts by providing a more comprehensive, policy-oriented, and globally contextualized perspective.

The novelty of this study is that this study will not only identify challenges but also suggest practical policy recommendations. This can assist governments and policymakers in addressing the economic issues that impact human wellbeing. This study will also focus on the long-term sustainability of economic policies and variables on human development can provide valuable insights into the potential risks and benefits of different economic approaches.

Keeping in view the reviewed literature and objectives of study the following pairs of hypotheses are formulated to test statistical relationship between variables.: --

Ho=Public Debt is negatively related to economic life expectancy (economic well-being of people in Pakistan).

H_1= Public Debt is positively related to economic well-being life expectancy (economic wellbeing of people in Pakistan).

Ho: Trade in services is negatively associated with life expectancy (economic well-being of people in Pakistan).

H_1: Trade in services is positively associated with life expectancy (economic wellbeing of people in Pakistan).

Ho: Government consumption expenditures are negatively related to life expectancy (economic wellbeing of people in Pakistan).

H_1: Government consumption expenditures are positively related to life expectancy (economic wellbeing of people in Pakistan).

Ho= Inflation is negatively related to economic well-being Life expectancy (economic wellbeing of people in Pakistan).

H_1= Inflation is positively related to economic well-being life expectancy (economic wellbeing of people in Pakistan).

Ho=Unemployment is negatively related to life expectancy (economic wellbeing of people in Pakistan).

H_1= Unemployment is positively related to life expectancy (economic wellbeing of people in Pakistan).

3. Data and Methodology

This is a quantitative study in nature in which we will use the quantitative data and methods using time series data from 1991 to 2021 and sourced from

World Development Indicator, Pakistan Economic Survey and the State Bank of Pakistan. Life expectancy is proxied for economic well-being, is dependent variable, while. Inflation rate, Debt, Unemployment rate, Budget deficit and Trade in services are independent variables. The selected variables, their indicators and sources were presented in Table 2.

Table 2 Selected variables, indicates and sources

Variables	**Indicators**	**Units**	**Source**
Human development	Life Expectancy at Birth	Number of Years	WDI
Public Debt	Public debt services	Percentage of GNI	WDI
Inflation Rate	Inflation (GDP Deflator).	Annual Percentage	WDI
Unemployment Rate	Unemployment in Youth.	Percentage of labor force	WDI
Budget Deficit	Government final consumption expenditure	Local Currency Unit (LCU)	WDI
Trade Deficit	Trade in Services	Percentage of GDP	WDI

An econometric model comprising dependent and independent variables is specified for this study. The functional form of the model is given below: -

$$LFEXPTOT = \beta_o + \beta_1(LGGVFCEXP) + \beta_2(LINFGDPDEF) + \beta_3(LPUBDEBT) + \beta_4(LTRDINSRVC) + \beta_5(LUNEMPLYTH) + \mu$$

Where;

LFEXPTOT = Life expectancy

LGGVFCEXP = Government Expenditures

LINFGDPDEF = Inflation GDP deflator

LPUBDEBT = Public debt

LTRDINSRVC = Trade in services.

LUNEMPLYTH = Unemployment in the youth.

μ= is Error term.

The analytical techniques employed in this study are as follows: -

- Descriptive Statistics
- Augmented Dicky Fuller Test
- ARDL Techniques
- Bound Test

The conceptual model comprising independent and dependent variables are presented in Figure 1

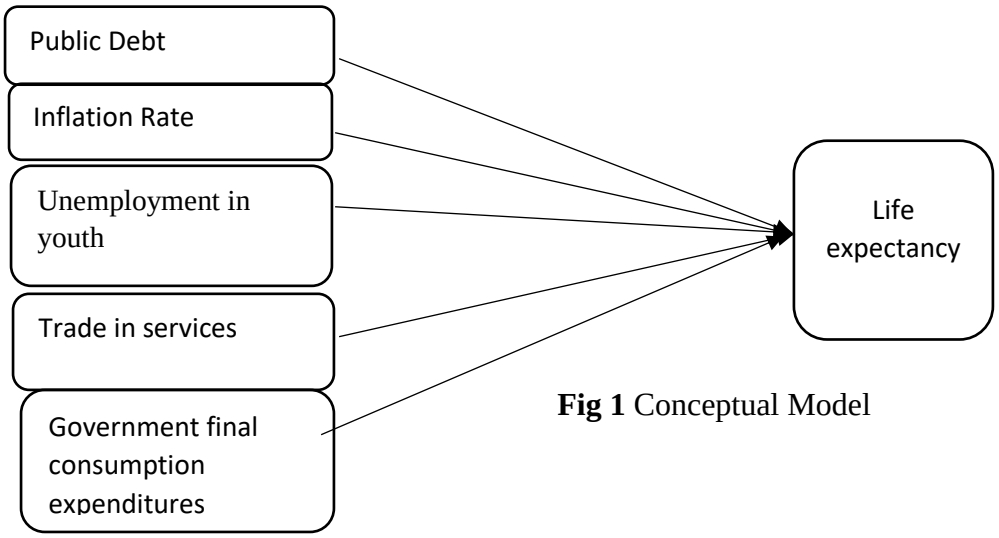

Fig 1 Conceptual Model

4. Results

4.1 Descriptive Statistics

The results of descriptive statistics are presented in Table 3.

Table 3 Descriptive statistics results

	LLFEXPTOT	LUNEMPLYTH	LPUBDEBTXM	LTRDINSRVC	LGGVFCEXP	LINFCNSPRC
Mean	1.798315	1.064783	1.226473	0.813583	12.26242	0.883000
Median	1.796755	1.077371	1.274392	0.827700	12.17100	0.977550
Maximum	1.824490	1.086701	1.502840	0.972003	12.61920	1.135062
Minimum	1.777267	1.010972	0.813846	0.626422	12.04989	0.464510
Std. Dev.	0.015837	0.022712	0.188727	0.109691	0.199306	0.213298
Skewness	0.229319	-1.094250	-0.613050	-0.218730	0.690696	-0.715797
Kurtosis	1.804744	2.811858	2.414385	1.614109	1.922902	2.114485
Jarque-Bera	1.707275	5.025973	1.923196	2.200069	3.196232	2.951665
Probability	0.425863	0.081026	0.382282	0.332860	0.202277	0.228588
Sum	44.95788	26.61958	30.66183	20.33957	306.5606	22.07501
Sum Sq. Dev.	0.006019	0.012380	0.854832	0.288769	0.953352	1.091907
Observations	25	25	25	25	25	25

The results in Table 3 demonstrate that the mean of life expectancy is 1.79 with standarad deviation 0.015837. The mean of unemplotment of youth is 1.06 with standard deviation 0.022712. The mean of public debt is 1.22 with standard deviation 0.188727. The mean of trade in services is 0.81 with standard deviation 0.109691. The mean of government consumption expenditure is 12.26 with standard deviation 0.199306. The mean of inflation is 0.88 with standard deviation 0.213298. The skeweness value of unemployment of youth is -1.094250 and it is highly negatively skewed as compared to all others. Public debt, trade in services and inflation are negatively skewed. Life expectancy and government consumption expenditures are normal symmetric. Kurtosis measure the peak flatness of variables distribution around its normality. All variables are platykurtic. Jarque Bera tests were used for testing the joint hypothesis about the normality

of skewness and kurtosis. The value of this test should not be zero if its value is zero which is represented that data of all variables is not normally ditributed. This table shows non-negative value of jarque Bera test, which indicate that all variables were normally distributed.

4.2 Augmented Dickey-Fuller (ADF) test

The estimated results of ADF unit root test are exhibited in Table 4.

Table 4 ADF unit root test results

Variable	Level (t-value, p-value)	First Difference (t-value, p-value)	Second Difference (t-value, p-value)	Decision
LLFEXPTOT	t = 0.6607 (p = 0.8418)	t = 2.3778 (p = 0.3828)	t = 6.1447 (p = 0.0000)	I (1)
	t = 2.3778 (p = 0.3828)	t = 6.1447 (p = 0.0001)	t = 6.4145 (p = 0.0001)	
LPUBDEBTXM	t = 1.5984 (p = 0.4710)	t = 0.4158 (p = 0.9820)	t = 7.4435 (p = 0.0000)	I (1)
	t = 7.6842 (p = 0.0000)	t = 8.4047 (p = 0.0000)	t = 8.3698 (p = 0.0000)	
LINFCNSPRC	t = 2.2360 (p = 0.1985)	t = 4.9337 (p = 0.0031)	t = 5.6184 (p = 0.0001)	I (0)
	t = 5.5491 (p = 0.0005)	t = 6.5299 (p = 0.0000)	t = 6.4065 (p = 0.0001)	
LTRDINSRVC	t = 2.2422 (p = 0.1968)	t = 3.1225 (p = 0.1214)	t = 2.6359 (p = 0.0980)	I (1)
	t = 3.0208 (p = 0.1465)	t = 12.4161 (p = 0.0000)	t = 12.1740 (p = 0.0000)	
LUNEMPLYTH	t = 2.9672 (p = 0.0539)	t = 1.2492 (p = 0.9996)	t = 3.0591 (p = 0.0473)	I (0)
	t = 2.6007 (p = 0.2881)	t = 1.0391 (p = 0.0045)	t = 7.2796 (p = 0.0019)	
LGGVFCEXP	t = 0.1109 (p = 0.9613)	t = 2.8682 (p = 0.1862)	t = 7.8150 (p = 0.0000)	I (1)

Variable	Level (t-value, p-value)	First Difference (t-value, p-value)	Second Difference (t-value, p-value)	Decision
	t = 7.8013 (p = 0.0000)	t = 6.2947 (p = 0.0000)	t = 6.2061 (p = 0.0001)	

Table 4 shows the results of unit root test. According to estimated results, the variable life expectancy is stationer at first difference while the variable public debt is stationer at first difference. Inflation is stationer at level. The data of trade in services is stationer at first difference. The variable, unemployment of youth is stationer at level. The variable, government consumption expenditure, is stationer at first difference. Thus, the results show that the data of all variable is stationary at the level and also at first difference. When the data is stationary at the level and first difference then ARDL technique can be applied. So, we use ARDL technique for further analysis.

4.4 Bound Test

The long-run association between variables with various integration orders is ascertained using the ARDL Bound test. The estimated results of Bound test are illustrated in Table 5.

Table 5 Bound test results

F-Bounds Test			Null Hypothesis: No levels relationship	
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	13.13329	10%	2.08	3
k	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15
Actual Sample Size	22		Finite Sample: n=35	
		10%	2.331	3.417
		5%	2.804	4.013
		1%	3.9	5.419
			Finite Sample: n=30	
		10%	2.407	3.517
		5%	2.91	4.193
		1%	4.134	5.761

Table 5 shows the outcome of the long run cointegration of Bound test. The F-statistics value for this result is 13.13329, which does not fall inside the lower or upper bounds. This F-statistic's value was higher than the upper bound's value. If the F-statistics values are higher than the upper boundaries, this indicates that the two variables that are dependent on one another have long-term co-integration. Therefore, in order to measure the long-term relationship between dependent and independent variables, we will use ARDL model to determine long run co-integration among the variables.

4.5. ARDL Model

The estimated short run and long results of ARDL model are presented in Table 6.

Table 6 Results of ARDL Model

ARDL Long Run Form and Bounds Test
Dependent Variable: D(LLFEXPTOT)
Selected Model: ARDL(3, 0, 1, 1, 0, 1)
Case 2: Restricted Constant and No Trend
Date: 07/22/23 Time: 22:36
Sample: 1 32
Included observations: 22

Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.533842	0.127142	4.198786	0.0018
LLFEXPTOT(-1)*	-0.537280	0.111626	-4.813210	0.0007
LUNEMPLYTH**	0.022509	0.021769	1.033969	0.3255
LPUBDEBTXM(-1)	-0.013113	0.003191	-4.109252	0.0021
LTRDINSRVC(-1)	-0.007165	0.008928	-0.802497	0.4409
LGGVFCEXP**	0.035511	0.007969	4.456305	0.0012
LINFCNSPRC(-1)	-0.005492	0.002093	-2.624400	0.0254
D(LLFEXPTOT(-1))	0.034389	0.188118	0.182807	0.8586
D(LLFEXPTOT(-2))	0.553900	0.291079	1.902922	0.0862
D(LPUBDEBTXM)	-0.000793	0.003147	-0.251920	0.8062
D(LTRDINSRVC)	-0.007057	0.005650	-1.248999	0.2401
D(LINFCNSPRC)	-0.000382	0.003570	-0.106884	0.9170

* p-value incompatible with t-Bounds distribution.
** Variable interpreted as Z = Z(-1) + D(Z).

Levels Equation
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LUNEMPLYTH	0.041894	0.039448	1.061996	0.3132
LPUBDEBTXM	-0.024407	0.004687	-5.206827	0.0004
LTRDINSRVC	-0.013336	0.015200	-0.877353	0.4009
LGGVFCEXP	0.066094	0.005898	11.20705	0.0000
LINFCNSPRC	-0.010222	0.004980	-2.052739	0.0672
C	0.993602	0.113211	8.776519	0.0000

EC = LLFEXPTOT - (0.0419*LUNEMPLYTH -0.0244*LPUBDEBTXM -0.0133 *LTRDINSRVC + 0.0661*LGGVFCEXP -0.0102*LINFCNSPRC + 0.9936)

Table 6 shows short run and long run association between dependent and independent variables. Life expectancy is dependent variable which was proxied for human development, while Youth unemployment, public debt, Government consumption expenditures, inflation and trade in services are independent variables. Part first of table highlights short-term relationship, while part second exhibits long-term relationship between variables.

First, we discuss short run results. The relationship between public debt and life expectancy is negative. This suggests when public debt increases, life expectancy tends to decrease in the short run. The fact is that these variables are statistically significant at a 5% significance level and it further reinforces their impact on life expectancy. The coefficient of service trade is (0.007057), which indicates a positive relationship between service trade and life expectancy. Thus, when service trade increases, life expectancy tends to increase in the short-term. The impact of service trade on life expectancy is statistically significant. The association between inflation and life expectancy is negative in the short-term. The government consumption expenditures have positive association with life expectancy as their coefficient is 0.035511. This suggests that as government spending increases, life expectance will also increase. However, in the short term, this relationship is not statistically significant. Similarly, youth unemployment does not seem to have a noticeable effect on life expectancy, even though its regression coefficient indicates a positive sign.

Now we discuss long-term results of ARDL model. The Youth unemployment has a positive relationship with life expectancy in the long-term. However, its impact isn't statistically significant. A one-unit changes in youth unemployment would lead to a 4.1% change in life expectancy. Public debt has a negative relationship with life expectancy. If one-unit increases in public debt, life expectancy will be decreased by 24% in the long-term. Trade in services has negative link with life expectancy but this relationship is insignificant in the long-term. There is a positive association between Government consumption expenditures and life expectancy and this relationship statistically is significant. It means a one-unit increase in

Government spending is associated with an increase in life expectancy by 66% in the long-term. Inflation has a negative relationship with life expectancy and if one-unit increases in inflation rate. Life expectancy will likely to be decreased by 10%. However, it's worth noting that inflation doesn't significantly impact life expectancy of people in Pakistan in the long-term.

5. Discussion

The main objective of this study was to investigate into the relationship between public debt, youth unemployment., inflation, Government consumption expenditures, trade in services and life expectancy. Life expectancy was proxied for economic wellbeing. Time series data of 30 years spanning from 1991 to 2021 were used to determine short run and long run relationship between variables. In order to understand this relationship statistically we employed different statistical techniques, such as descriptive statistics, correlation matrix, ADF test, Bound test, ARDL model and Granger causality test. The main findings of this study are discussed as follows: -

In the short run, there is a negative relationship between public debt and life expectancy. This suggests that an increase in public debt leads to a decrease in life expectancy in the short term. Furthermore, this relationship is statistically significant at a 5% significance level, emphasizing the impact of public debt on life expectancy. The coefficient of trade in services is positive (0.007057), indicating a positive relationship between trade in services and life expectancy in the short term. When service trade increases, life expectancy tends to increase. This relationship is also statistically significant. However, there is a negative association between inflation and life expectancy. An increase in inflation leads to a decrease in life expectancy. But Government consumption expenditures exhibit a positive relationship with life expectancy.

As government spending increases, so does life expectancy. However, this relationship is not significant statistically in the short term. Similarly, although youth unemployment has positive association with life expectancy in the short run, but this relationship is not statistically significant.

The long-term results of ARDL model show that public debt has negative relationship with life expectancy, suggesting a one-unit increases in public debt is associated with a decrease in life expectancy by 24%. The first null hypothesis **(Ho),** which states that public debt is negatively related to economic wellbeing is accepted and alternate hypothesis **(H_1)** is rejected. These findings support to the studies of Ahad, Muhammad and Anwar, Zaheer (2019); Ukangwa et al. (2022), who explored relationship between public debt, budget deficit and human capital development. They concluded that increasing public debit had a negative impact on life expectancy.

Similarly, trade in services also has a negative link with life expectancy, but this relationship is statistically insignificant. The second null hypothesis **(Ho),** which states that trade in services is negatively related to life expectancy in Pakistan is accepted and alternate hypothesis (**H_1**) is rejected because empirical results show negative relationship between these two variables.

The Government consumption expenditures have strong and positive association with life expectancy in the long run. This suggests that a one-unit increases in government spending is likely to increase life expectancy by 66%. Our third null hypothesis **(Ho),** which states that government consumption expenditures have negative relationship with life expectancy is rejected and alternate hypothesis **(H_1)** is accepted because the empirical findings support this relationship. These results are in line with Lord Keynes' theory of deficit-financing to pull the economy out of recession and reduce unemployment.

Keynes suggested that government spending is necessary to pull the economy out of recession and reduces people's stress.

The inflation has a negative relationship with life expectancy. This indicates a one-unit increases in the inflation rate is likely to decrease life expectancy by 10%. However, this relationship is not statistically significant. Our fourth null hypothesis (Ho) which states that inflation is negatively related to life expectancy, is accepted and alternate hypothesis is rejected because the empirical results show negative relationship between these two variables. These findings confirmed the studies of Yolanda (2017); Obebor (2020); and Mezni and Djebali (2022), who found negative association between inflation and life expectancy as high inflation has negative impact on economic wellbeing of people.

The empirical result of this study show that youth unemployment has positive but weak relationship with life expectancy. These positive results do not support to our fifth hypothesis **(Ho)** which states that youth unemployment is negatively associated with life expectancy in Pakistan and alternate hypothesis **(H_1)** is accepted. These results are not in accordance with economic theory and logic and needs further investigation into the relationship between youth unemployment and life expectancy. They also contradict the findings of Taner (2011), Runtunuwu (2020); Priambodo (2021) and Abbas, et al. (2021), who found negative relationship between unemployment and economic well-being of people. However, one explanation of the positive relationship between youth unemployment and life expectancy is that the youth do not care about their future and economic well-being particularly in the developing and poor countries due to lack of education and skill. It is generally observed that most of the young in poor countries spend their times in the social activities, which have nothing to do with their career and earnings growth.

6. Conclusions

This study presents a comprehensive analysis of the relationship between independent variables, such as public debt, Youth unemployment, Government consumption expenditures and economic wellbeing (Life Expectancy. Life expectancy, which is dependent variable and a proxy of economic wellbeing. The findings of this study reveal that public debt, youth unemployment, trade in services, and inflation have negative association life expectancy while Government consumption expenditures have strong positive relationship with it. The unemployment has also positive association with life expectancy but this relationship is not significant and needs further research because this finding negates economic theory and previous studies, which states unemployment has negative impact on economic well-being (life expectancy).

6.1 Practical implications

The implications of the study, as derived from the above conclusions are that: the study underscores the need for effective economic management, especially with regard to public debt and trade balances. Policymakers should frame effective strategies for managing public debt level and trade dynamics, particularly in the context of their impact on the well-being of the population. Moreover, the policy makers should consider to increase government spending in the areas that contribute to well-being, such as healthcare, education, and social support programs because the government spending and longevity have positive association. The results of this study reveal that inflation has a relatively modest negative impact on well-being, therefore, policymakers should still be vigilant about controlling inflation, especially over the long term. Measures to control inflation can indirectly contribute to the overall

well-being of the people by ensuring stable prices and a healthy economic environment. The findings also emphasize the relevance of sound economic policies in shaping the well-being of the population. Policymakers should be informed by these results when crafting economic and social policies, as they have the potential to significantly impact the health and quality of life of the people. Thus, the implications of the study highlight the importance of economic management, government spending policies, and the control of inflation in improving the economic well-being of the people. These implications can inform the decisions of policymakers and guide further research in the field of economic well-being.

6.2 Limitations of study

There are some limitations of the study. For example, this study primarily focuses on associations between economic factors and economic well-being of people, both in the short and long run. However, it does not establish causal relationships. It is essential to recognize that correlation does not imply causation, and other unaccounted-for variables may influence the observed relationships. This study is related to Pakistan, and its findings might not be directly applicable to other countries or regions with distinct economic, social, and political contexts. Generalizing the results to different countries should be done cautiously, as different regions may have unique determinants of well-being. Additionally, this study simplifies complex economic systems into a limited number of independent variables. Real-world economies are multifaceted and influenced by numerous factors, including cultural, environmental, and geopolitical elements. This simplification may not capture the full complexity of the economic determinants of well-being. This study does not account for all possible determinants of economic well-being. Factors such as education, healthcare quality, environmental conditions, and

sociopolitical stability could also influence well-being but are not included in this analysis. This research study does not examine potential regional variations within Pakistan. Well-being determinants may differ between urban and rural areas or among provinces, and such differences are not explored in the analysis. Researchers and policymakers should consider these limitations when interpreting and applying the study's findings.

6.3 Suggestions for further research

In the light of above limitations, the following suggestions for further research are made:

● Future research could explore additional factors, such as education and healthcare expenditures, and their impact on well-being.

● More granular analysis at the regional level may reveal variations in the relationship between economic factors and well-being.

`● This study reveals positive association between youth unemployment and economic well-being which is against economic theory and common logic and need further research in this field.

● A longitudinal study could provide insights into how these relationships evolve over time and in response to policy changes.

● Cross country analysis can be made to compare the dynamics of variables in different countries and observe their impact on various societies.

Data Statement

The data that supports the findings of this study will be made available by corresponding author on strong request.

Acknowledgement

The authors are grateful to the anonymous referees of the journal for their valuable suggestions to improve the quality of the article.

Declaration of competing interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The authors declared receiving no funding. Approval of participants Formal consent was obtained from participants before collection of data.

References

Abbas, Muhammad Khan, Faheem Ur Rehman, Farhan Hussain, and Abdul Razzaq (2021). Study on Determinants of Trade Deficit in Selected SAARC Countries: The Role of Infrastructure. *Indian Journal of Economics and Development*: https://doi.org/10.17485/IJED/v9.2021.14. Google Scholar

---

Ahad, Muhammad and Anwar, Zaheer (2019). Asymmetrical relationship between oil price shocks and trade deficit: Evidence from Pakistan. *The Journal of International Trade and Economic Development*. DOI: https://doi.org/10.1080/09638199.2019.1655782. Google Scholar

---

Awan, Abdul Ghafoor (2014). Brazil's Innovative Anti-Poverty & Inequality Model, *International Journal of Development and Economic Sustainability* 2 (5): 45-55 Google Scholar

---

Awan, Abdul Ghafoor (2012). Diverging Trends of Human Capital in BRIC countries, *International Journal of Asian Social Science*, 2 (12): 2195-2219. Google Scholar

---

Awan, Abdul Ghafoor; Rubina Yaqoob (2023) Economic value of introducing technology to improve productivity: An ARDL approach, *Innovation and Green Development*, 2 (3): 1-8 Google Scholar

Awan, Abdul Ghafoor, Yaseen, Ghulam (2017). Global Climate Change and Its Impact on Agriculture Sector in Pakistan., *American Journal of Trade and Policy* 4 (1) 41-48 Google Scholar

Awan, Abdul Ghafoor (2012) Human Capital: Driving Force of Economic Growth in Selected Emerging Economies, *Global Disclosure of Economic and Business*, 1 (1): 09-30 Google Scholar

Awan, Abdul Ghafoor (2016). Wave of Anti-Globalization and capitalism and its impact on world Economy, *Global Journal of Management and Social Sciences*, 2 (4): 1-21. Google Scholar

Awan, Abdul Ghafoor (2015). Analysis of the impact of 2008 financial crisis on economic, political and health systems and societies of Advanced countries, *Global Journal of Management and Social Sciences* 1 (1): 1-16. Google Scholar

Awan, Abdul Ghafoor (2015). State Versus Free Market Capitalism: A comparative Analysis. *Journal of Economics and Sustainable Development*, 6 (1): 166-176 Google Scholar

Awan, Abdul Ghafoor (2015) Relationship between Environment and

Sustainable Economic Development: A Theoretical approach to Environmental Problems, *International Journal of Asian Social Sciences* 3 (3): 741-761 Google Scholar

---

Awan, Abdul Ghafoor (2014). Shifting Global Economic Paradigm, *Asian Business Review*, 4 (3): 113-118 Google Scholar

---

Awan, Abdul Ghafoor (2011) Changing World Economic and Financial Scenario, *Asian Accounting and Auditing Advancement,* 1 (1): 146-175. Google Scholar

---

Awan, Abdul Ghafoor (2013). Environmental challenges to South Asian Countries. *Asian Accounting and Auditing Advancement*, 3 (1): 84-103. Google Scholar

---

Awan, Abdul Ghafoor (2013) China's Economic Growth-21st Century Puzzle. *Global Disclosure of Economics and Business* 2 (2) 9-29. Google Scholar

---

Awan, Abdul Ghafoor, Riffat, Naseem (2019) The impact of Government expenditures on Economic development in Pakistan. *Global Journal of Management. Social. Sciences and Humanities*, 5 (1):562-565. Google Scholar

---

Awan, Abdul Ghafoor. Kamran, Muhammad (2017). Impact of Human Capital development on Pakistan's Economic growth. *Global Journal of management, Social Sciences and Humanities*, 3 (3)

Dagwom Yohana Dang (2016). Budget Deficit and Human Development in Nigeria: An Empirical Study. IOSR *Journal of Economics and Finance*, 7(2), 71-80. e-ISSN: 2321-5925. http://doi: 10.9790/5933-0702037180 Google Scholar

---

Febrianti Wahyuningrum and Etty Soesilowati (2021). The Effect of Economic Growth, Population, and Unemployment on HDI. *Indonesian Journal of Development Economics*. Efficient, 4(2), 1217-1229.: http://doi.org/10.15249/efficient.v4i2.46325. Google Scholar

---

Ihegboro Ifeoma Maria, Igwemeka Ebele Cecilia, Nnenna Georgina Nwonye, Okereke Lawrence Okoronkwo, Onodugo Ifeoma, and Collins Chimkamma Chinda (2021). Deficit Financing and Economic Recovery. *European Journal of Economic and Financial Research*, 5(3). http:// doi: 10.46827/ejefr. v5i3.11778. Google Scholar

---

Khemais Zaghdoudi (2018). Is the Relationship Between External Debt and Human Development Non-linear? A PSTR approach for Developing countries. *Economic Bulletin*, 38 (4), 2194-2216. Google Scholar

---

Marian Noga, Marta Postula, and Jaroslaw Klepacki (2018). The Impact of The European Public Debt Criterion on the Real Socio-Economic Development. *Transformation in Business and Economics*, 17 (45), 38-54. Google Scholar

---

Mehmet Tolga Taner, Bulent Sezen, Hakan Mihci (2011). An Alternative Human Development Index Considering unemployment. *Social Indicators Research*, 102 (2), 305-325. DOI:10.2478/v10033-011-0005-z. Google Scholar

---

Mezni, Muhammad and Nesrine Djebali (2022). *External Debt and Human Development Index: MENA Region Case*.: https://doi.org/10.21203/rs.3.rs-1650276/v1. Google Scholar

---

Ogbebor, Peter I., Oguntodu, James A., Oyinloye, and Paul O. (2020). Inflation and Standard of Living in Nigeria. *International Journal of Developing Country Studies*, 2(1), 1-19. http://doi:10.7176/dcs/10-4-06 Google Scholar

---

Priambodo (2021). The Impact of Unemployment and Poverty on Economic Growth and the Human Development Index (HDI). *Perwira International Journal of Economics & Business* (PIJEB, 1 (1), 29–36. Google Scholar

---

Prince Charles Heston Runtunuwu (2020). Analysis of Macroeconomic Indicators and Its Effect on Human Development Index (HDI). *Society*, 8(2), 596-610. P-ISSN: 2338-6932 | E-ISSN: 2597-4874. http://doi: 10.33019/*society*. v8i1.149 Google Scholar

---

Sanusi Fattah and Aspa Muji (2012). Local Government Expenditure Allocation toward Human Development Index at Jeneponto Regency South Sulawesi, Indonesia. *IOSR Journal of Humanities and Social Science*, 5 (6): 40-50. Google Scholar

Shahzad Farid, Waqas Ali Khan, and Imtiaz Ahmad Warriach (2012). Effect of Inflation on Standard of Living (A case study of Multan, Pakistan). *Universal Journal of Management and Social Science*, 2(12).

Google Scholar

Siska Ardi Cahyanti and Sotya Fevriera (2020). The Effect of Regional Minimum Wage and Inflation on HDI in Central Java. *Journal Ekonomi Pembangunan*, 18 (02), 152-167. http:// Doi: 10.22219/jep. v18i2.12869.

Google Scholar

Sukma Febrianti and Junita Indriyati (2020). The effect of Inflation, Poverty and Investment on sustainable development in West Kalimantan Province. *Journal Ekonomi dan Manajemen,* 14 (1). P-ISSN: 1907-8439, E-ISSN: 2614-1345. Google Scholar

T. Bhavan (2017). Human Capital as A Pushing Factor of Export: The Case of Four South Asian Economies. *Asian Development Policy Review* 5 (4), 299-2306. http://doi: 10.18488/journal.107.2017.54.299.306.

Google Scholar

Ukangwa Jane Uchechi, Ikechi Victor Iheukwumere, and Ben M. Ogbonna (2022). Impact of Debt Sustainability on Nigerian Economic Development. *Central Asian Journal of innovations on Tourism Management and Finance,* :03(6), http://cajitmf.centralasianstudies.org/index.php/CAJITMF.

Google Scholar

Yolanda.Y (2017). Analysis of Factors Affecting Inflation and its Impact on Human Development Index and Poverty in Indonesia. *European Research Studies Journal*, 20(4), 38-56. http://doi: 10.35808/ersj/873.

Google Scholar