

IMPACT OF GLOBALIZATION ON POVERTY IN PAKISTAN

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ABSTRACT

This study investigates the effects of globalization on economic poverty in Pakistan. It emphasizes how important it is to comprehend this research issue because poverty vents economic growth and prevents economic growth but also makes life difficult. The analysis takes into account elements including trade openness, FDI, GDP growth rate, population, and inflation using an ARDL model. According to the research, FDI, trade openness, and inflation all have a big impact on poverty. Surprisingly, FDI raises poverty rates, but trade openness mostly benefits the wealthy and widens income disparity by benefiting them. For successful policy-making and the promotion of fair development, it is essential to comprehend the connection between globalization and poverty. To combat poverty and promote equitable economic growth in Pakistan, policymakers must consider domestic and international variables both domestic and international variables into account.

Key words: Globalization, Poverty, Inflation, Trade openness, FDI, Population, GDP

INTRODUCTION

The decade of the 1980s saw the beginning of widespread use of the word "globalization," which refers to the rapid development of technical systems that simplified the process of doing business across national borders. It refers to market forces that operate outside national borders yet have been active for millennia at all levels of human economic activity, such as in village marketplaces, metropolitan businesses, or even financial centers. These market forces may be found at all levels of human economic activity (IMF, 2008).

The intersection of global cultures, demography, and economies is what we mean when we talk about globalization (Song, Li and Cao, 2018). When we examine globalization, we see that it has resulted in increased international commerce of a variety of commodities, including capital, products, and services as well as information, investment, and labour markets. Most countries have grown their economic, political, and social links as a result of growing their level of global integration (Robinson, 2004). As a consequence of globalization, poor nations are closing the gap in global equality by working in concert with

developed nations to bring about cheaper international communication and quicker transportation. This is a direct outcome of globalization (de Oliveira, 2023). The majority of the economic literature is focused on debating issues related to globalization and market inequality. On the one hand, globalization has numerous advantages since it promotes steady economic growth as well as welfare advancement and improvement in third world countries, with the goal of bringing these nations up to the same level as the globalized economy. The other side of this coin is that it may exacerbate existing socioeconomic inequality and have a harmful impact on the environment (Ajiboye, 2018; Sharma *et al.*, 2020).

Globalization has reached previously unimaginable heights in the 21st century. The vast majority of people all over the globe have profited from technical advancements, but these benefits come at the expense of unequal wealth distribution, which in turn encourages feelings of dissatisfaction. Although poverty and inequality on a worldwide scale have improved in recent decades, the polarisation of the labour market and

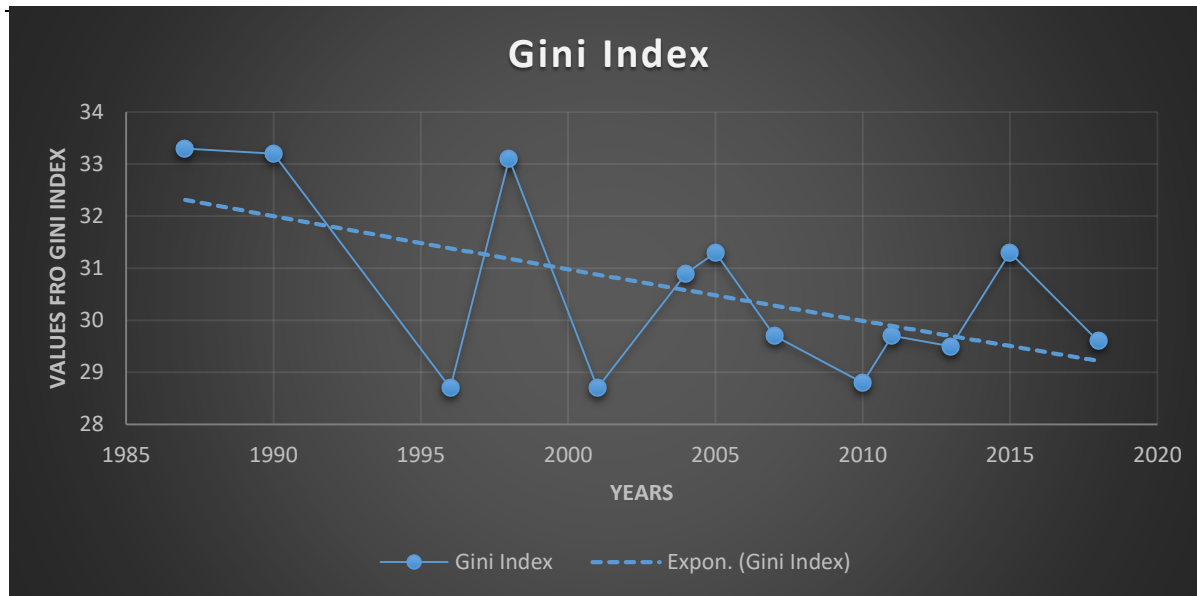
the promotion of inequality inside many countries are both consequences of globalisation (Held, 1991). According to the findings of Leipziger et al., (2016), research, the expansion of global connection would further exacerbate existing levels of national inequality.

According to World Trade Organisation (WTO, 2023), the total value of worldwide goods trade in 2022 was 24,904,489 (million US dollars). This figure represents an increase from 2016's total value of 16,035,818 (million US dollars). The United Nations Conference on Trade and Development (UNCTAD) estimates that the worldwide Foreign Direct Investment (FDI) will reach \$1.58 trillion in 2021, representing a 64 percent increase from 2020 (World Investment Report 2022). According to a study published by the globe Bank in 2022 (World Bank, 2022) there were 659 million individuals throughout the globe who were living below the poverty line in 2021. Their daily earnings were less than \$2.15. As in World Inequality Report (WIR, 2021) the bottom 50% of the world's population earns 8.5% of the total income when assessed at Purchasing Power Parity (PPP), while the middle 40% of the world's population earns 39.5% of the total income, and the top 10% receive 52% of the total income when measured at PPP.

Developing nations like Pakistan, who have been working on their economic policies and institutions for a long time in order to increase trade liberalization (Khan and Faridi, 2008). According to data from 2018, 4.9% of Pakistan's population lives on less than \$2.15 a day, which is considered to be the poverty headcount ratio (World Bank, 2019). Despite the fact that Pakistan has a lot of experience with the effects of trade policy on income disparity. In an effort to boost prosperity at a time when many other

developing countries are failing, Pakistan has loosened restrictions on commerce. The first programme of the International Monetary Fund (IMF) known as the Structural Adjustment Programme (SAP) was adopted in Pakistan in the year 1988. Subsequently, in 1995, Pakistan became a member of the World Trade Organisation (WTO), which gave the liberalisation of trade a significant boost. Pakistan has not slowed down in its pursuit of its objectives, and the country has even gone so far as to sign a number of supplemental agreements with various foreign countries in an effort to advance more rapidly towards their objectives. Among them are bilateral agreements with China, Sri Lanka, Malaysia, and South Asia. In addition, they have engaged into preferential agreements with Iran, Indonesia, Mauritius, and the developing countries. 8. The preferential agreements with the European Union (EU), which go by the name of the European Generalised System of Preferences (GSP) Plus, in addition to the curiously winning free trade arrangements with Turkey, Thailand, and Korea (Khan, Walmsley and Mukhopadhyay, 2021).

There are a variety of approaches to calculating income disparity, the most common of which are the Household Income and Expenditure Survey (HIES) and the Pakistan Integrated Household Survey (PIHS) in Pakistan. Although there are many more ways to measure income inequality, the Lorenz curve and the Gini coefficient are used most often in Pakistan (Anwar, 2005; Kemal, 2006). Figure 1 shows that the Gini coefficient has both an upward and a downward slope. For example, in 1996 the income inequality was at 28.7%, but after that it soared to 33.1% the next year. Therefore, at the present time, it is demonstrating a downward tendency.



Source of data: World Bank **Figure 2:1: Gini Index**

1.1. Problem Statement

Pakistan is one of the developing nations whose economy is growing slowly for a variety of reasons including political unrest, high import costs, poor economic policy makers, and circular debt, amongst many other factors. The actual growth rate of Pakistan's GDP in FY2022 is 5.97% at the moment. While the average household earned \$1798 before accounting for inflation, which was 11.5 percent (GOP, 2022). When we look at the current condition on Pakistan's economy as presented in the Monthly Progress report, we notice that it is worse than it has ever been, with inflation standing at 31.5% and a current account deficit of 3.9 billion dollars. Despite the fact that foreign direct investment is at 784.4 million dollars, it is just half of what it was during the same time last year (Monthly Economic Update of Pakistan March 2023). The Asian Development Bank (ADB) estimates that in the year 2021, the percentage of the working population that lives on less than \$1.90 in purchasing power parity per day will be 3.7%, while the percentage of the population that lives below the national poverty line would be 21.9% (van, 2021).

Trade liberalisation in Pakistan is still in the process of being implemented, but there is a paucity of published material on the connections between globalisation, poverty, and income

disparity. There are both good and bad effects that may be caused by globalisation. Pakistan has had mostly favourable effects, however this is now owing to policy makers. The increasing tariffs and restrictions on trade that Pakistan has implemented have contributed to the country's general slowing of economic development. Because of this, in this paper, we will investigate the effects of globalisation on income inequality and poverty from a variety of perspectives. This will show us the best approach for policymakers to take in order to implement this in the economy and raise growth over 6%, which is where it was headed in 2021.

1.2. Objectives:

- 1) To find out the impact of globalization on poverty in Pakistan.
- 2) To study the impact of trade liberalization on poverty in Pakistan.
- 3) To examine the issue of poverty in Pakistan.
- 4) To examine the globalization effects on poverty alleviation.
- 5)

1.3. Importance of the Study

Pakistan is home to a very small number of published works. Researchers in Pakistan don't pay much attention to issues relating to globalisation, in contrast to their counterparts in

several of Pakistan's neighbours. In such nations, globalisation is the subject of ongoing study and analysis. In terms of the relationship between globalisation and poverty, income inequality, or any other indicators, there is a significant need for more study.

This study will assess the implications of global integration with Pakistan, which will offer academics and policy makers with the support they need to build better policy by analysing the many different components that are related to globalisation. Trade policy is much more vital to any emerging or developed nation to gain stability in the country like China and India are working hard to create more globalisation and better by controlling other factors also as it is not going in Pakistan. China and India are working hard to make more globalisation and better by controlling other variables.

1.4. Organisation of Study:

The study comprises at 5 chapters from which 2nd Chapter will briefly describes literature review and the 3rd chapter will explains the Methodology. While the 4th chapter will explain the results and discussion whereas the lastly chapter 5 will shows the conclusion with recommendations.

2. Literature Review

2.1. Impact of Globalization on Poverty

Globalization has a weak and negligible effect on poverty both in the short and long term. As the total population has a significant influence on poverty, other factors like FDI and overall population also negatively affect poverty in each period. The findings by Yaseen and Mishal, (2016) investigate are consistent with a wide range of research that found that although globalization has some significant long-term effects, it has the least immediate influence on the lives of people living in developing nations. Globalization has reduced India's absolute poverty but increased inequality. The Gini Index measures inequality and the KOF Index globalization. Globalization increases access to resources, which boosts GDP growth, per capita incomes, and poverty rates (Shahbaz Akmal et al., 2007). Thus, globalization may reduce poverty, but it also concentrates wealth and inequality rises. A similar trend is found in the

US, Latin America, China, and India. India's GDP and income have expanded since globalization started in 1991, reducing poverty, but inequality has increased due to the income distribution being tilted toward the rich. Income and wealth distribution policies that promote equality without hindering economic growth and entrepreneurship may address this problem (Upadhyay, 2015).

Globalization reduces poverty empirically. Political globalization may not always reduce poverty, but economic and social globalization does. The study shows that globalization reduces poverty. The study's findings are also robust to various assumptions and econometric methods investigating trade liberalization and poverty in Pakistan. Globalization has reduced poverty in Pakistan since trade and foreign investment have increased economic growth and employment opportunities, according to the authors (Khan and Majeed, 2018). The trade openness had a favourable and considerable impact on Tanzanian economic development. This impact was considerably stronger during the closed economy period than during the open economy period. Tanzania has had ongoing trade deficits in her accounts since the late 1980s. This was a factor that contributed to the outcomes. As a result Mkubwa, Mtengwa and Babiker, (2014) the research advised that the government take a significant push to increase the value of its exports to compensate for imports. More domestic businesses must be developed, as well as more investors were drawn to the economy. Furthermore, superfluous tariffs must be eliminated.

2.2. Trade Liberalization and Poverty

According to the findings of Ahmad et al., (2012) income disparity and population expansion have a positive relationship with poverty, but trade liberalization has a negative relationship with poverty. In addition, the government should take measures to implement cost-effective family planning and reproductive health programs that may encourage more demographic balance. Because a large population translates to a low HDI or a high degree of poverty. If Pakistan wishes to eliminate poverty, it must manage population growth as well as the income disparity gap. On the other hand,

globalization and trade liberalization are critical. Although they had a detrimental impact on the pay structure in rich nations, trade liberalization policies were intended to improve wage disparity in emerging countries. However, a substantial body of research on the effect of trade liberalization policies (TLP) and foreign direct investment (FDI) on wage inequality and employment have discovered something different after three decades of empirical data. Both rich and developing nations have seen a rise in pay disparity as a result of TLP and FDI study by (Aguayo-Tellez, 2012).

The exchange rates and trade openness were adversely correlated with poverty, but foreign direct investment and inflation rates had a positive link with the human development index. The analysis suggested by Onakoya, Johnson and Ogundajo, (2019) there is immediate policy changes intended to overhaul the strategies for reducing poverty. The developing nations should focus on other developing nations in the spirit of South-South cooperation to diversify the export market. Such nations have to think about enhancing or joining regional economic cooperation. In the export-oriented industry, incentives should be put in place to encourage production and the development of human potential. Any government must have social and economic measures to guard against the negative impacts of decreasing trade barriers. According to the findings by Castilho, Menéndez and Sztulman, (2012) trade liberalization may be connected to decreases in inequality (and perhaps poverty) in rural regions while increasing poverty and inequality in urban areas. According to data on Brazil's observed integration into global markets, state poverty and inequality in Brazil both decline with increased export exposure, whereas state poverty rises with import penetration.

2.3. Problem of Poverty

The empirical results point to a strong negative influence on rural poverty of the female-to-male enrollment ratio, female-to-male literacy ratio, female-to-male years of total schooling, the female-to-male ratio of earners, and the education of household heads. According to the study by Chaudhry and Rahman, (2009) there is substantial positive correlation between

household size and the proportion of women to men (members) and the likelihood of poverty. In developing nations like Pakistan, where gender imbalance in education and rural poverty are inversely correlated, education may increase job prospects and combat poverty. On the other hand, policymakers indicate that precise scale of the effect of small and medium companies on poverty alleviation. SMEs provide job possibilities that contribute to poverty reduction in the economy of Pakistan. Additionally, Pakistan's poverty is greatly decreased by human capital. The rate of poverty growth decreases as human capital rises. Similar to trade, inflation and poverty also have a strong correlation, however inflation and poverty have a positive correlation whereas trade has a negative correlation with Pakistan's rate of poverty rise. In order to reduce poverty in Pakistan, the findings point to the need for the government to implement policies that encourage SME development, trade openness, human capital, GDP, and lower inflation rates. (Zafar, Waqas and Butt, 2018)

In order to improve the lives of the nation's citizens, the government should divert more of its defense budget into social sector development (Kalim and Hassan, 2014). At the same time, it should make significant efforts to reach peace agreements with India. Value contributed by the industrial sector has been proven to significantly affect reducing poverty in both the long and short terms, depending on the specification. Furthermore, long-term poverty in Pakistan is being greatly reduced through development spending and the value contributed by the service sector.

2.4. The Globalization Effects on Poverty Alleviation

According to the study's findings, Hassan, Bukhari and Arshed, (2020) the chosen nations' openness, competitiveness, and development spending do significantly contribute to reducing poverty. Raising the relatively high minimum wage has a positive impact on reducing poverty, particularly severe poverty, in Honduras. However, only homes with employees from major companies see the effect, and those with low-wage employees experience it more severely. In industries where minimum wages are either not enforced or do not apply, increases in

the minimum wage have no impact on poverty. Therefore, minimum wages may be a measure for reducing poverty in the formal economy, which is internationally competitive. According to the study by Gindling and Terrell, (2010) the data show that different areas have been more effective at reducing poverty over time. China's overall effectiveness in reducing poverty is, however, highly unevenly distributed geographically. Additionally, China's effectiveness in reducing poverty is favorably impacted by financial growth and technical innovation.

However, the effects of globalization's efficiency on reducing poverty are negligible. The paper presents some policy insights for decision-makers (Zameer, Shahbaz and Vo, 2020). Due to the aim of eradicating poverty being an inherent element of the National Economic Plan (NEP), Malaysia has been successful in eliminating poverty. Programs to

eradicate poverty were carried out in tandem with development plans, and all Malaysia Plans included funding for them. This research comes to the conclusion that extreme care is required when assessing the potential effect of anti-poverty initiatives. Several troubling concerns persist despite the apparent government concern for poverty over the last 30 years and the exceptional longevity of policies influenced by new economic policy (Hatta and Ali, 2013).

3. Data and Methodology

Before start of empirical analysis, this paper discusses the construction of all economic series or short description of each series. After that this study carry out descriptive analysis, and the unit root test will be analyzed for the fruitful results and policy measure. Finally, econometrics methodology will be discussed.

Table 3:1: Description of Economic Series

Variable	Definition	Measurement (Unit)
POV (Poverty)	Percentage of people living below \$2.15 per day	% of total population
POP (Population)	All citizen legally and illegally living in the country.	Number of persons
TRDO (Trade Openness)	(Export-Import)/GDP	% of the GDP
FDI (Foreign Direct Investment)	FDI Inflow-FDI outflow	Current US \$
GDPA (Gross Domestic Product Annual)	Annual Growth rate of GDP	% annual growth
EDBT (External Debt)	Proportion of gross domestic product to total external debt	% of GNI
INF (Inflation)	Growth rate of CPI annually	% growth rate

3.1. Descriptive Analysis

Mean (or average): The mean is calculated by dividing the total number of data points by their sum.

$$\bar{X} = \frac{\sum_{i=1}^n X_i}{n}$$

Median: The middle value of ordered data set. It stands for the value at which and above which 50% of the data is present.

For odd number of observations

$$Median = \frac{n+1}{2}$$

For even number of observations

$$Median = \frac{n}{2}$$

Mode: The value that appears most frequently in a dataset is the mode.

$$Mode = \text{most frequent observation}$$

Standard deviation: The variability or dispersion of data points around the mean is measured by the standard deviation. It displays the average difference between each data point and the mean.

$$SD = \sqrt{\frac{(X_i - \bar{X})^2}{n}}$$

Variance: The spread or dispersion of data points around the mean is measured by variance, which is the square of standard deviation.

$$Variance = \frac{(X_i - \bar{X})^2}{n}$$

Skewness: The asymmetry of the data distribution is measured by skewness. A longer tail on the right side is indicated by positive skewness, whereas a longer tail on the left side is indicated by negative skewness.

$$Skewness = \frac{1}{n} * \frac{\sum_{i=1}^n (X_i - \bar{X})^3}{SD^3}$$

Kurtosis: Kurtosis gauges whether the data distribution is peaked or flat. While negative kurtosis denotes a flatter distribution, positive kurtosis indicates a distribution that is more peaked.

$$Kurtosis = \frac{1}{n} * \frac{\sum_{i=1}^n (X_i - \bar{X})^4}{SD^4}$$

Unit Root Test

To ascertain a time series data set has a unit root, which signifies that the economic series has a non-stationary trend and displays a random walk characteristic, unit root tests are frequently employed in econometrics. This test helps in determining a series' stationarity or non-stationarity, which is crucial for choosing the right econometric models. In order to check this, Augmented Dickey Fuller (ADF) test for the unit root test would be used.

ADF Test:

This test is based on the Dickey-Fuller (DF) test value, which contrasts the alternative hypothesis of stationary after differencing with the null hypothesis that a economic series has a unit root. In order to take into consideration potential autocorrelation, the ADF test expands on the DF test by incorporating additional lagged differences of the series.

Hypothesis of ADF Test:

H_0 ; Series has unit root or series is non – stationary

H_1 ; Series has no unit root or series is stationary

By generating an autoregressive (AR) model of the economic time series data and evaluating the coefficient of the lagged first difference of the series, the ADF test is carried out. The test statistic determines whether the null hypothesis of a unit root can be rejected in courtesy of stationarity by comparing the estimated coefficient (ADF calculated) with a critical value of ADF at 5% significant level, it is most commonly used significant level.

The null hypothesis of a unit root is rejected in favor of the alternative hypothesis of stationarity if the calculated test value is more negative (i.e., smaller) than the critical. This suggests that there is no unit root and that the economic series data is most likely to be stationary.

3.2. Econometrics Model

The problem of non-stationary may arise from the different series having different order, and most

of our series are in percentage growth, it's better to use ARDL method without taking worry of different order. Before using ARDL general to specific approach we will use the ARDL-bound test to check the cointegration among POV and other economic series.

ARDL-Bound Test

This test statistic is created by Pesaran, Shin and Smith, (2001) for checking cointegration and

The bound test equation is expressed as follows.

$$\Delta Y_t = \alpha_1 \Delta X_t + \alpha_2 X_{t-1} + \alpha_3 Y_{t-1} + \alpha_4 \Delta Y_{t-1} + \alpha_5 \Delta X_{t-1} + \dots + \epsilon_t$$

Hypothesis:

H_0 ;: No long – run relationships exist

H_1 ;: Long – run relationship exist

This test has two critical values (Lower and upper bound), because it is based on F-Statistics.

3.3. ARDL: General Specific Approach

Using the ARDL model suggested by (Pesaran, Shin and Smith, 2001). Through this method co-integration and short run analysis between poverty and various explanatory variables are conducted. This methodology avoids issues that typically result from irregular integration orders.

long run dynamic analysis and short run analysis of interested variables. This co-integration approach's advantage over the traditional Johansen and Juselius method is that it doesn't call for the same order of integration or the pre-testing of variables like unit root testing. The second benefit of this strategy is that it is more effective with small and limited sample sizes.

The general to a particular technique to examining the consumption model was initially introduced by Davison et al. in 1978. In order to determine a more precise model of poverty, this thesis applied the general to specific technique in this section. The equation below can be used to represent the generic model.

$$Y_t = \alpha_0 + \alpha_1 X_{1t} + \alpha_2 X_{2t} + \dots + \alpha_n X_{nt} + \sum_{i=0}^n \beta_1 X_{1t-i} + \sum_{i=0}^n \beta_2 X_{2t-i} + \dots + \sum_{i=0}^n \beta_n X_{nt-i} + \mu_t$$

The following equation is an unrestricted model, and the final result should be a parsimonious one after estimate of the above model and application of joint linear and non-linear restrictions.

Dynamic Analysis: Dynamic analysis shows the significance of individual estimators, the overall first lag, and the overall second lag. It is

used to assess the significance of lag structure. The p-values supplied by the F-test will be used to help determine the decision rule.

Exclusion Test: If the dynamic analysis does not show that the significant test has been cleared jointly, we will employ the T-test and F-test to test for exclusions and restrictions.

4. Results and Discussion

4.1. Descriptive Analysis:

The properties of the estimated residuals, such as the central tendency, variability, distributional shape, and existence of outliers, can be better understood by interpreting descriptive statistics. These conclusions can be helpful in evaluating

the estimated model's goodness of fit and dependability as well as in spotting any potential problems or patterns in the residuals that may require further research. It's critical to interpret descriptive statistics in light of the particular estimation outcomes as well as the supporting information and model assumptions.

Table 4:1: Descriptive Statistics of Individual Series

	EDBT	FDI	GPA	GPDA	INF	POV	TRDO
Mean	39.71930	-1.35E+09	1.64E+08	4.437451	8.221218	29.51250	32.33516
Median	41.16948	-7.89E+08	1.65E+08	4.566647	7.882675	21.89500	32.91850
Maximum	55.90091	-1.10E+08	2.20E+08	7.705898	20.28612	67.30000	38.49932
Minimum	24.34506	-5.49E+09	1.04E+08	1.014396	2.529328	4.300000	24.70158
Std. Dev.	10.79485	1.41E+09	36225620	1.780271	3.972074	23.08914	3.885482
Skewness	0.026731	-1.722446	-0.050224	-0.003271	0.710026	0.736565	-0.414851
Kurtosis	1.407271	5.380856	1.704653	2.375871	3.768994	2.001052	2.213101
Jarque-Bera	3.386191	23.38101	2.250686	0.519440	3.477199	4.224015	1.743485
Probability	0.183949	0.000008	0.324541	0.771267	0.175766	0.120995	0.418222
Sum	1271.017	-4.32E+10	5.24E+09	141.9984	263.0790	944.4000	1034.725
Sum Sq. Dev.	3612.394	6.19E+19	4.07E+16	98.25036	489.0986	16526.36	468.0060
Observations	32	32	32	32	32	32	32

EDBT series have the median (41.16948) and mean (39.71930) are near in value, the data is probably roughly equally distributed. Given that the standard deviation (10.79485) is not significantly different from the mean, the data points are likely not randomly distributed. The data appears to be roughly regularly distributed because the skewness (0.026731) and kurtosis (1.407271) are both near to zero. The data appears to be somewhat normally distributed, according to the Jarque-Bera statistic (3.386191) and its corresponding probability (0.183949).

FDI have the median (-7.89E+08) and mean (-1.35E+09) have considerably different values, the data may be biased. The presence of skewness and probable outliers in the data is further supported by the negative skewness (-1.722446) and positive kurtosis (5.380856). The data strongly deviates from normalcy, as shown by the high Jarque-Bera statistic (23.38101) and low probability (0.000008) associated with it.

GPA series have the median (1.65E+08) and mean (1.64E+08) have similar values, the data are likely about equally distributed. Given that the standard deviation (36225620) is not significantly different from the mean, the data points are likely not randomly distributed. Since the skewness (-0.050224) is about zero, the data appears to be roughly regularly distributed. The distribution may have a tiny peak since the kurtosis (1.704653) is marginally higher than zero. The Jarque-Bera statistic (2.250686) and probability (0.324541) that go along with it also imply that the data is roughly regularly distributed.

GPDA series has the median (4.566647) and mean (4.437451) are near in value, the data are likely about equally distributed. Given that the standard deviation (1.780271) is not significantly different from the mean, the data points are likely not randomly distributed. Since the skewness (-0.003271) is almost negligible, the data appears to be roughly regularly distributed. The

distribution may have a tiny peak since the kurtosis (2.375871) is marginally higher than zero. The Jarque-Bera statistic (0.519440) and probability (0.771267) likewise point to a roughly normal distribution of the data.

INF series has the median (7.882675) and mean (8.221218) are near in value, the data is likely somewhat equally distributed. The fact that the standard deviation (3.972074) is so low in comparison to the mean indicates that the data points are not wildly scattered. Positive skewness (0.710026), which denotes a right-skewed distribution, is present. Given that the kurtosis (3.768994) is greater than zero, the distribution may have peaked. The Jarque-Bera statistic (3.477199) and probability (0.175766) both point to a roughly normal distribution of the data.

POV series has mean (average) 29.51250, which highlights the data's central tendency. The center number once the data is sorted—the median—is 21.89500. The data set's greatest value is 67.30000, while its lowest value is 4.300000. The data's variability or dispersion is gauged by the standard deviation, which stands at 23.08914. With a skewness value of 0.736565, the data

appears to be positively skewed, suggesting that the tail of the data is stretched towards higher values. The data has a moderately peaked shape and a somewhat thick tail, as indicated by the kurtosis, which measures the distributional shape of the data, which is 2.001052. The Jarque-Bera statistic, which checks the data's normality, is 4.224015, and its associated probability is 0.120995.

TRDO has average 32.33516. The greatest value in the data set is 38.49932, the minimum value is 24.70158, and the median is 32.91850. In comparison to the POV data set, the standard deviation is 3.885482, which is relatively low. With a skewness rating of -0.414851, the data looks to be negatively skewed, extending the tail of the data towards lower values. The data has a moderately peaked distribution and a moderately thick tail, according to the kurtosis of 2.213101. The likelihood associated with Jarque-Bera value of 1.743485, which is 0.418222, indicates that the data may roughly follow a normal distribution. The total squared deviations from the mean are 468.0060.

4.2. Unit Root Estimation

Table 4:2: Augmented Dickey Fuller Test

	At level		At 1 st difference				Comments		
	ADF Value	test Critical Value at 5%	Drift	Trend	Cal. Value	Critical Value at 5%		Drift	Trend
POV	-2.333825	-3.56288	Yes	Yes	-4.23286	-1.952473	No	No	I(1)
EDBT	-2.402615	-3.56288	Yes	Yes	-5.29833	-1.952473	No	No	I(1)
TRDO	-2.346755	-3.56288	Yes	Yes	-5.61589	-1.952473	No	No	I(1)
DLPOP	-1.389862	-3.57424	Yes	Yes	-4.72334	-2.967767	Yes	Yes	I(1)
GDPA	-3.563102	-2.96041	Yes	No			No	No	I(0)
INF	-2.528291	-2.96041	Yes	No	-7.01228	-1.952473	No	No	I(1)
FDI	-2.976894	-3.56837	Yes	Yes	-3.71885	-1.952473	No	No	I(1)

ADF test used to verify stationary in the aforementioned TABLE. Because estimated value is smaller than critical value and there is no drift or trend at 5% of significant level, we can see that GDPA is stationary at level. While POV,

EDBT, TRDO, INF, DLPOP and FDI become stationary at the first difference, we cannot rule out the possibility that they are non-stationary because their calculated values at level are higher than the critical values.

ARDL Bound Test

Hypothesis: H_0 ; No long – run relationships exist
 H_1 ; Long – run relationship exist

Table 4:3: ARDL-Bound Statistics

Null hypothesis: No relationship				
Test Value	Value	Significant Level	Lower	Upper
F-Calculated	5.729606*	10%	1.75	2.87
K (Number Explanatory Variables)	6	5%	2.04	3.24

The above table suggests that the F-Statistics value is more than the lower-bound and upper-bound at 5% and 10% levels. Therefore, null hypothesis to be rejected in the courtesy of

alternative hypothesis. This suggests that there is a long-run relationship between POV and explanatory variables.

Table 4:4: Error Correction Mechanism (ECM)

Case 1: Neither drift nor trend				
	Value	S. E	t-calculated	P-value
ECM_{t-1}	-0.437037	0.057737	-7.569416	0.0000

The ECM of regression is negative and highly significant, so it suggests that the economy will restore at its own, but it will take more than two years.

4.3. ARDL: General Specific Approach

Due to the problem of high-dimension (smaller sample and large numbers of parameters), the software package will automatically select the

appropriate numbers of lags in the model, due to annual series, only one lag will be included in the below model.

$$POV_t = \alpha_0 + \alpha_1 POV_{t-1} + \alpha_2 EDBT_t + \alpha_3 EDBT_{t-1} + \alpha_4 TRDO_t + \alpha_5 TRDO_{t-1} + \alpha_6 GPA_t + \alpha_7 GPA_{t-1} + \alpha_8 GDPA_t + \alpha_9 GDPA_{t-1} + \alpha_{10} INF_t + \alpha_{11} INF_{t-1} + \alpha_{12} FDI_t + \alpha_{13} FDI_{t-1} + \mu_t$$

Table 4:5: Poverty (POV)

POV

Technique: ARDL

Time period: 1989-2018

n=30

Maximum lags: 1 (Automatic selection)

Model selection technique: AIC

Regressors selection automatic: TRDO FDI EDBT INF DLPOP

Proposed Model: ARDL (1, 1, 1, 0, 1, 1)

Series	Coefficient value	S. E	t-value	P-value
POV (-1)	0.954657	0.105538	9.04563	0
TRDO	0.811266	0.764567	1.061079	0.302
TRDO (-1)	1.313739	0.608664	2.158398	0.0439
FDI	7.11E-09	2.64E-09	2.689024	0.0145
FDI (-1)	-7.18E-09	2.73E-09	-2.63045	0.0165
EDBT	-0.68586	0.325137	-2.10944	0.0484
INF	-0.74815	0.56273	-1.3295	0.1994
INF (-1)	-1.61749	0.694285	-2.32972	0.031
DLPOP	263.4524	208.8963	1.261164	0.2225
DLPOP (-1)	364.6143	226.3876	1.610575	0.1238
C	-37.6788	19.76835	-1.90602	0.0719
R-squared	0.945588	Mean dependent var		27.02433
Adjusted R-squared	0.91695	S.D. dependent var		21.61916
S.E. of regression	6.230289	Akaike info criterion		6.773297
Sum squared resid	737.5134	Schwarz criterion		7.28707
Log likelihood	-90.5995	Hannan-Quinn criter.		6.937658
F-statistic	33.01881	Durbin-Watson stat		1.648218
Prob(F-statistic)	0			

Most of the variables are insignificant, so we will check the significance with the help of joint hypothesis starting from lag-2 of all variables.

Joint Hypothesis will be:

$$H_0; \alpha_2 = \alpha_4 = \alpha_6 = \alpha_8 = \alpha_{10} = 0$$

$$H_0; \text{Atleast one restriction is non - zero}$$

Table 4:6: Wald Test

Test Value	Value	Degree of freedom	P-value
F-statistic	0.91172	(5, 19)	0.4539
Chi-square	2.73516	5	0.4343

The output of Wald test suggests that the probability of both test statistics is greater than 5% significance, therefore test values do not discard null hypothesis.

Table 4:7: Parsimonious Model for Poverty (POV)

Method: OLS

Time period: 1989-2018

n=32

	Coefficient	S. E	t-calculated	P-value
Constant	-18.2775	13.37927	-1.36611	0.1851
POV (-1)	0.901362	0.090499	9.959873	0
EDBT (-1)	-0.21669	0.223251	-0.97061	0.3418
TRDO (-1)	1.032315	0.518846	1.989636	0.0586
GDPA (-1)	1.064692	0.834665	1.275592	0.2148
INF (-1)	-1.00008	0.480134	-2.08292	0.0486
FDI	5.46E-09	1.97E-09	2.774905	0.0108
FDI (-1)	-4.23E-09	1.87E-09	-2.26166	0.0335
R-squared	0.945263	Mean dependent var	28.29355	
Adjusted R-squared	0.928603	S.D. dependent var	22.39971	
S.E. of regression	5.985236	Akaike info criterion	6.634105	
Sum squared resid	823.9302	Schwarz criterion	7.004166	
Log likelihood	-94.8286	Hannan-Quinn criter.	6.754735	
F-statistic	56.74109	Durbin-Watson stat	1.679081	
Prob (F-statistic)	0			

The findings of the parsimonious model analysis show that the "POV," is influenced by a number of independent variables. At conventional levels, the constant term (C), which has a coefficient of -18.27751 and a standard error of 13.37927, is not statistically significant (p-value of 0.1851). With a high degree of confidence, the coefficient for the lagged-value of the POV, POV (-1), is 0.901362 and has a standard error of 0.090499; it is statistically significant (p-value of 0). This shows that the current value of POV is considerably influenced by the dependent variable's past value.

The coefficients are -0.216689, 1.032315, 1.064692, and -1.000078, respectively, for the lagged values of the other independent variables, EDBT (-1), TRDO (-1), GDPA (-1), and INF (-1). The p-values for each of these coefficients are

higher than 0.05, indicating that their impacts on POV are not statistically significant in our study even if none of them are statistically significant at conventional levels.

With a coefficient of 5.46E-09 and a standard error of 1.97E-09 (p-value of 0.0108), the FDI variable has a positive statistically significant effects on POV. With a coefficient of -4.23E-09 and a standard error of 1.87E-09 (p-value of 0.0335), the lagged value of FDI, FDI(-1), also has a statistically significant adverse influence on POV. This implies that the value of POV is significantly influenced by the current and lagged values of FDI.

With a high R-squared value of 0.945263, the regression model successfully accounts for a sizable percentage of the variation in the POV. The corrected R-squared value, which takes into

consideration the d.f is 0.928603. The average level of error in the model's predictions is depicted by the S.E, which is low; 5.985236. Low values of the information criterion (AIC, SC, HQ criterion) and the DW value, which denotes no significant autocorrelation in the residuals, further reinforce the model's goodness-of-fit.

Chapter 05

5. Conclusion and Recommendation

5.1. Conclusion

Poverty not only creates the woe but also put bad impact on the growth and development of the economy. It plays negative role for the growth and prospectus of the economy like Pakistan. It is truly said that poverty is the mother of all evils of the society, therefore it is needed more focus to tackle the problem. In order to resolve issue, it is necessarily to understand the causes of poverty. In this regard, the two major hypotheses are empirically analyzed in this little effort. First is does globalization effects the poverty? And second one is to check what are domestic factors that promotes the poverty? For checking the first hypothesis three variables related to international economy are used; trade openness, FDI and external debt. Similarly, for checking the second hypothesis, GDP growth rate, population, inflation is used in this study.

This study used all variables in a single model and used ARDL with one-one lag of poverty and all explanatory variables, and with the help of general to specific approach, a parsimonious model is devised.

The results of the regression analysis show that current value of the dependent variable, POV, is statistically significantly influenced by both the past value of the POV and FDI. Current value of FDI increases the poverty, it comes against the expected sign. It may be because of most of foreign firms are interested in urban side rather than rural areas. The trade openness has positive and significant impact over the poverty, it may increase the wealth of rich rather than poor. Poor does not contribute to the trade openness; it increases the income inequality. The current value of inflation has positive impact on the poverty; it is according to the expected economic theory, as inflation increases it leads to the increase in the poverty, because it worsens the purchasing power of poor. In this study, the

variance in POV is not statistically significantly explained by the lagged values of the other independent variables. Overall, the parsimonious model fits well, accounting for a large percentage of the variance in the dependent variable.

5.2. Policy Recommendation and Future Suggestion

Government should control the inflation, so poor can purchase at least basic necessities. She should involve the poor's participation in trade. She should motivate the international FDI towards the rural population rather than the restrict to urban. Limitation of this study lies with the available small sample size. Researcher should capture the ground realities of poverty by taking ground realities cross-sectional factors that enhance the poverty. May be researcher get exact factors of poverty.

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