

Effectiveness of Foreign Aid and Tax Revenue on Economic Growth of Pakistan

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ABSTRACT

Economic growth is defined as the increase in the production of economic goods and services over time. This paper examines the impact of foreign aid and tax revenue on economic growth in Pakistan. Additionally, it explores how we can enhance the economic growth rate through improvements in the taxation system and by reducing dependence on foreign aid. Both domestic revenue and foreign aid serve as sources of development financing, and both tax revenue and foreign aid have an impact on economic growth. The empirical analysis is based on secondary data, specifically time series data from the period 1975-2018. The Johnson co-integration estimation . Study employs the ARDL (Auto Regressive Distributed Lag) Bound testing approach to explore the relationship between economic growth and other dependent variables, including tax revenue, capital formation, government expenditure, per capita income, and foreign aid. The results of the ARDL model indicate that foreign aid has a positive impact on economic growth in Pakistan. Government expenditure and per capita income also have a positive influence on economic growth, while taxes and capital formation negatively affect economic growth in Pakistan.

KEYWORDS

Economic Growth Rates, Tax Revenue, Foreign Aid, Capital Formation, Pakistan

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INTRODUCTION

Economic growth defined as the total market value of all final goods and services produced within a country in a given period. It includes private and public consumption, private and public investment, and exports less imports. Economic growth (GDP growth) refers to the percent change in real GDP, which correct the nominal GDP figure for inflation. Economic growth generates profits for businesses as a result, stock price rise, gives companies capital to invest and hire more employees for businesses so more jobs are created, income rise. Consumer have more money to buy additional products and services and leads to economic growth. The most popular model of economic growth explains that the growth of the economy depends upon the investment in human capital. Increase in worker out-put leads to increase in per capita and enhances economic growth of the country. Output per worker depends directly on the saving (investment) rate and inversely on the population growth rate and depreciation rate (Solow, 1956).

Now a days, the main focus of developing countries is on improving economic growth and poverty reduction. To achieve this purpose, a need of massive expenditure, with resource obtain from external loans, grants and domestic resource mobilization. Flows of capital in developing countries including Pakistan increase continually. So, increase in financial resources may increase the economic growth and poverty reduction. But developing countries including Pakistan does not increase its financial resources hence its economic growth remain low. Most of the developing countries rely on external aid, foreign direct investment (FDI) and domestic resources contribute to enhance economic growth and poverty reduction (Tuffour, 2013).

The resources given from one country to another countries known as foreign aid. But it's usually understood to mean money, materials, and manpower given or loaned by governments organization, and individuals in rich countries to help people in poor countries (Awosusi, 2021).

As aid consider transfer of resources from one country to other countries studies show the relation between saving, foreign aid, investment and growth in the low income countries of Sub-Saharan Africa. In this paper the data of low income Africans countries use over the period of 1968-1982 to measure the relationship between economic growth and aid, and the concept of aid firstly used in official development assistant. The results show that higher level of concessionary aid linked with higher rate of domestic investment, economic growth and enhanced domestic savings (Levy, 1988).

The main objective of foreign aid to Africa and other developing countries is mainly to increase economic development. Most of the studies show that Africa received a large amount of foreign aid as compared to the rest of world. The impact of aid should be positive if the amount of aid use to development financing when the amount of aid used to development financing it increases domestic revenue, creates additional fiscal space for supporting high-priority spending and maintain country spending



level. If the amount of aid is used instead of development financing, it would decrease the revenue generation capacity of the country (Mbatia, 2018).

Research Gap

Aid is more effective in aggregate terms and also more effective in less corrupt countries. If aid is used effectively and not given to corrupt individuals, the results are positive. However, when aid is not utilized properly, the results can be varied (Guijarro et al., 2013). Like many other developing countries, Pakistan receives a large amount of foreign aid and has become more aid-dependent (Javid & Qayyum, 2011). Aid has been found to be more effective when coupled with sound macroeconomic policies. This study primarily focuses on macroeconomic policies and their effectiveness, without paying much attention to the micro level. If aid is provided by NGOs instead of the government, it may be more effective. Taxes and exchange rates have a negative and significant impact on economic growth in both the short and long run (Ahmad et al., 2013). This research is also based on secondary data and shows that tax rates have a negative impact on the economic growth of Pakistan because the ratio of revenue collected through taxes are very low and relief of taxes provide to the tax payers are also very low that's why the effects of taxes are negative . However, it should be noted that this research covers the years 1976-2011, while the current research covers the years 1975-2018.

Statement of the Problem

Aid is significant in Pakistan since it is the main source of FDI and capital inflows and has an effect on macroeconomic stability. One option being discussed to close the fiscal gap is foreign help. To keep the macroeconomic environment stable, it has needed careful monitoring and management. Since its inception, the Pakistani economy has experienced numerous financial crises. Pakistan saw the toughest circumstances from 1990 to 1999. The Pakistani government took over a country that was in a severe fiscal crisis in 1990. Pakistan received 1298 million dollars, however that amount fell to 1071 million. Furthermore, the drop in foreign funding and strict requirements set by the donor had made the economic situation worse. The fiscal deficit reaches a new peak of 8.7 per cent in 1990-91 notwithstanding the allocation of \$900 million by the IMF. Nearly every western and American donor slapped a boycott on Pakistan after May 28th, 1998. The external debt reached \$38.96 billion in 1999. Following 9/11, U.S. support was crucial in helping Pakistan's economy go from a deadly level to exceptional performance. The reduction in debt is the result of the Pakistani government switching from using an external source of funding to T-bills and the issuance of Islamic bonds. The debate above shows that for a developing country to fund its social programmes, outside aid is essential. However, as most gifts are made in the name of allegiance and shared interests, the interest of the donor nation is also a crucial consideration. Since its inception, Pakistan has had financial problems. With the shift in Western and American interests, there has been a rise and fall in history. This has an impact on numerous social programmes and efforts to reduce poverty in Pakistan.

Significance of the Study

For a variety of stakeholders, the research study examining how taxes affect commerce in Pakistan is of utmost importance, and its results are anticipated to shed light on the economic climate of the nation. The value of this study is further explained by the statements below:

1. **Development of Economic Policy:** Economic officials in Pakistan must comprehend how trade and taxes interact. The study's conclusions can help policymakers create efficient tax laws that foster investment, commerce, and economic growth.
2. **Trade Competitiveness:** Taxation practises have a big impact on a nation's ability to compete internationally. The study can offer insight on whether Pakistan's current tax system impedes or strengthens its ability to compete in the global market by examining the effect of taxes on commerce in Pakistan.
3. **Revenue Generation:** Taxes are the main way that the government makes money. The study can analyse how changes in tax policies affect the government's revenue and, as a result, its capacity to fund crucial public services and infrastructure development by looking at the impact of taxes on trade.
4. **Foreign Direct Investment (FDI):** For foreign investors evaluating Pakistan as a potential investment location, the study's findings regarding the tax-trade nexus may have ramifications. More FDI can be attracted by a tax-friendly environment, which can boost capital inflows and economic growth.
5. **Trade Balance and Current Account:** Taxes can have an impact on a country's imports and exports, which can affect the trade balance and current account. Policymakers can use the study's findings to better understand how tax policies impact trade imbalances and consider potential trade balance improvement initiatives.
6. **Business Environment:** Taxation is a significant factor in the operational choices made by enterprises involved in international trade. The study can give firms useful information to help them make strategic decisions that maximise their trade activities by looking at the relationship between taxes and trade.
7. **Employment and Labour Market:** Employment prospects in sectors with an export focus may be indirectly impacted by tariffs on trade. A thorough analysis can assist determine the impact of taxes on job creation and guide the development of policies that will improve employment prospects.

8. Trade Accords Pakistan is a party to a number of regional and global trade pacts. Understanding how taxes affect commerce can help in trade negotiations and guarantee that the nation's tax policies are in line with the promises made in these agreements.
9. Poverty Alleviation and Welfare: Effective tax policies can support social welfare initiatives and efforts to reduce poverty. The study can provide insights into how tax reforms can be used to improve population well-being by examining how taxes affect trade and economic growth.
10. Academic Contribution: The study makes a noteworthy contribution to the academic literature in addition to its practical consequences. It advances knowledge of the interactions between commerce and taxes in a particular setting and lays the groundwork for future investigation and scholarly discourse.

Hypotheses

Null Hypothesis

H₀

Foreign aid and tax revenue have no positive impact on economic growth in Pakistan

Working Hypothesis

H₁

Foreign aid and tax revenue have a positive impact on economic growth in Pakistan

Objectives of the Present Study

1. To find out that foreign aid and tax revenue has appositive impact on the economic growth of Pakistan.
2. To explore independence from foreign aid improves the macroeconomic performance of fiscal policy in Pakistan.
3. To search out enhancement in Government expenditure increases the social welfare of the country.

LITERATURE REVIEW

The literature review has been divided into two sections. Section 2.1 carries the relationship between tax revenue and economic growth, and the Section 2.2 explains the nexus among foreign aid and economic growth.

Tax revenue and Economic Growth

Over the course of history, the link between taxation and foreign aid has undergone significant change as a result of shifting geopolitical forces, economic theories, and ambitions for international development. This historical analysis highlights significant turning points and patterns in this intricate interaction:

1. Early humanitarian intervention: The idea of foreign aid has roots in ancient civilizations, when empires would offer allied nations or regions that were struggling food, resources, or military support. These early types of help were frequently motivated by alliances or humanitarian concerns.
2. Post-World War II age: The Marshall Plan's implementation in 1948 marked the start of the modern age of foreign aid following World War II. The United States generously donated money to Europe's war-torn nations in order to support their reconstruction and economic recovery. This signalled the start of using foreign aid as a lever for geopolitical and economic power.
3. The Cold War and Geopolitical Aid: During the Cold War, the ideological conflict between the capitalist West, led by the United States, and the communist Eastern Bloc, led by the Soviet Union, included a significant amount of foreign aid. Both parties used aid as a strategy to win support and influence in underdeveloped nations, frequently with strings attached to make sure recipients supported the donors' political goals.
4. Economic Development and Technical Assistance: In the 1960s and 1970s, the emphasis of foreign aid switched to supporting economic development and giving developing nations technical assistance. In order to promote infrastructure projects and economic reforms, organisations like the World Bank and the International Monetary Fund (IMF) played a vital role in the aid distribution process.
5. The Debt Crisis and Conditional Aid: In the 1980s, there was a major debt crisis in many developing nations. Donors began tying aid to strict economic and structural reforms in recipient nations, especially international financial institutions. This conditionality strategy attempted to encourage market-oriented policies and ensure that help was utilised effectively.
6. Millennium Development Goals (MDGs): In the 2000s, the United Nations' set of eight global development goals—the Millennium Development Goals—became the primary focus of foreign aid. Among other things, these objectives included boosting education, enhancing healthcare, and eliminating severe poverty.
7. The Paris Declaration on Aid Effectiveness was created in 2005 in response to worries about the impact and efficacy of international aid. The proclamation sought to enhance the coordination, harmonisation, and alignment of aid with the development strategies of recipient nations.
8. Growth of South-South collaboration: Over the past few decades, there has been an increase in South-South collaboration, in which developing nations help and support one another on a technical level. This pattern contradicts conventional North-South assistance dynamics and shows a change in the world economy.

9. Sustainable Development Goals (SDGs): After the Millennium Development Goals (MDGs) reached their end in 2015, the global community approved the SDGs. Foreign aid is still a key component in helping nations accomplish these 17 ambitious goals by 2030.
10. Taxation and Domestic Resource Mobilisation: The significance of domestic resource mobilisation for sustainable development has recently gained more attention. To finance public services and lessen reliance on help, taxes are a vital source of revenue for the government.

In conclusion, there have been major changes in the historical link between taxation and foreign aid. Foreign aid has been a key tool in tackling global concerns and developing international collaboration, from humanitarian support to geopolitical assistance and development cooperation. Finding the ideal balance between foreign aid and domestic resource mobilisation remains a crucial factor for achieving sustainable development and eradicating poverty around the world as the world continues to change.

Tax collections are the significant well spring of advancing reasonable financial development and destitution decrease. It gives non-industrial nations a steady and unsurprising monetary climate to elevate development and to fund their social and physical infrastructural needs and decreases long haul dependence on unfamiliar guide and guarantees great administration by advancing the responsibility of legislatures to their residents (Takumah, 2014). Charge strategy is utilized for the monetary and social purposes like designation of assets through expanding inside investment funds, expanding financial development of the nation, giving cost strength and controlling the creation and utilization level in a round about way.

The impact of state-level expense strategy on states' monetary development has shown to be dubious issues in scholar and strategy circles. State charge strategy impact financial development and innovative exercises. Study produces critical, negative, and hearty impacts of duties on pay development, we in any case find that neither duty incomes nor top negligible personal expense rates bear any steady relationship frequently bear a positive relationship to financial development rates across states and after some time. Steady with these discoveries, we likewise find that charge incomes insecurely affect work over the long haul and that minimal expense rates don't influence business levels (Adesola, 2020). While the pace of firm development is adversely impacted by top annual assessment rates, the impacts are little in monetary terms.

As expense income upgrade financial development in agricultural nations (Ghani, 2012). In Pakistan, many endeavors has been made to build the degree of duty income that is the reason during 2002-10, in Pakistan charge to-Gross domestic product proportion stayed 10.9% on normal which suggests a fascinating conversation starter of whether Pakistan is able to additional adventure its homegrown assets or is it as of now at the edge of full double-dealing and no further income could be created from homegrown expense assortment.

Charges gathered from both immediate and round about expense called Assessment income. Charge income gives an itemized report on income gathered from various things partnership charge, personal duty, abundance charge customs, association extract, charge on association Domains like land income, stamp enrollment. So expansion in charge income improve to monetary development and expansion in charge rate prompts a reduction in charge income, then, at that point, charges are excessively high (Pecorino, 1995). Deciding the degree of tax collection where incomes are amplified is more dubious. Model tax collection influences static work supply choices, yet powerful capital gathering choices too. By lessening the development rate tax collection diminishes the expense base in every single future period.

Foreign Aid and economic growth

The assets given starting with one country then onto the next nations known as unfamiliar guide. In any case, it's generally perceived to mean money, materials, and labor supply given or credited by legislatures association, and individuals in rich nations to assist with peopling in unfortunate nations. Unfamiliar guide can save the lives of millions of individuals living in neediness all over the planet (Moreira, 2005). Unfamiliar guide handle part of issues, for example, wellbeing, schooling, foundation and human it aria in emergencies. The significant reason for unfamiliar guide characterized as the advancement of monetary turn of events and government assistance of agricultural nations, customary motivation behind unfamiliar guide advancement of the financial development of non-industrial nations.

As help consider move of assets from one country to different nations concentrate on show the connection between saving, unfamiliar guide, speculation and development in the low pay nations of Sub-Saharan Africa. Low pay Africans countries use over the period of 1968-1982 to gauge the connection between financial development and help, and the idea of help utilized in true advancement aide, right off the bat. The outcomes show that more elevated level of concessionary help connected with higher pace of homegrown speculation, monetary development and upgraded homegrown investment funds.

Help stream to emerging nations show huge inflow of cash, particularly in less fortunate beneficiaries. So help mean the critical sums are successfully spent in the contributor country on consultancy and specialized benefits or giving food and compassionate alleviation (Mosley, 2015). In most of beneficiaries, a large portion of the guide that is spent in the nation goes through the public authority to financial plan backing or money the arrangement of administrations. Non-government organizations likewise get how much guide. In low pay nations help ought not to out of the ordinary to affect on monetary way of behaving, which gets the huge measure of help comparative with GDP.

Pérez-Oviedo, W., Cajas-Guijarro, J., & Vallejo, M. C. (2018) examined the impact of help on monetary development in Latin America and the Caribbean (LAC) from the period of 1992-2007 Utilizing development relapse model the investigation discovered that creating locale getting unfamiliar guide with the most elevated per capita pay and most noteworthy in fairness levels. Help is more compelling in accumulated term and furthermore more successful in less bad nations. That's what the review show on the off chance that help was utilized in successful manner and not given in that frame of mind of degenerate individuals than the outcome was positive and the aftereffect of help was critical yet when how much guide not utilized in appropriate manner the outcome was assorted.

(Tuffour, 2013) decided the connection between unfamiliar guide and homegrown income on one hand and their impact on monetary development in Ghana over the time of 1970-2011. Study had been use blunder revision model and Granger Causality to find the connection between the factors, for example, subordinate variable monetary development and free factors unfamiliar guide, workforce, capital arrangement, homegrown income, government funded training use expansion rate. That's what the review showed; homegrown income and unfamiliar guide complete one another for advancement supporting. Unfamiliar guide can't sub for homegrown income. The review showed positive connection between charge income and unfamiliar guide to financial development yet more consideration ought to be given to the age of assessment income (Azam, M 202).

A significant number of the emerging nations get an enormous part of unfamiliar guide. As we see the after effect of unfamiliar guide we reason that drawn out institutional impacts of help are negative and transient outcomes are positive (Mosley, 2015). The purposes behind this negative institutional effect are various, and incorporate a propensity for help streams to be utilized corruptly in a few beneficiary nations and a propensity for help streams to subvert charge exertion, driving thusly to bring down open uses and lower development prospects that are the reason help harms foundations with specific reference to financial organizations (Arshad,2021).

In the field of development economics, the connection between foreign aid and economic growth is a complicated and contentious issue. Foreign aid is defined as financial or material support given from one nation to another with the goal of fostering economic growth, decreasing poverty, advancing infrastructure, and promoting development in the recipient nation. Depending on a number of variables, the effect of foreign aid on economic growth can differ.

1. The efficiency of foreign assistance is based on how successfully it is utilised and handled in the recipient nation. Aid can significantly impact economic growth when it is used to make investments in infrastructure, healthcare, education, and other productive sectors.
2. Complementary Elements: When other elements required for economic growth are present, foreign help can operate as a catalyst. For instance, assistance for the construction of necessary infrastructure could increase production if there is a qualified workforce to make use of the new facilities.
3. Absorption Capacity: A nation's institutional capacity, governance, and administrative effectiveness all affect its capability to absorb and successfully use foreign help. Using aid efficiently may be difficult for nations with poor institutions, which would reduce the influence of aid on economic progress.
4. Debt Burden: In some circumstances, receiving foreign help may result in the recipient nation having a greater debt burden. Injudicious use of aid or excessive borrowing by the nation can lead to financial instability and impede long-term economic growth.
5. Economic distortions: Foreign aid, if poorly targeted, can lead to economic distortions by diverting funds away from perhaps more fruitful industries. If the recipient becomes unduly dependent on help, it can also hinder efforts to mobilise local revenue.
6. The "crowding out" effect: In some cases, foreign aid may "crowd out" domestic savings and investments. The availability of aid could have a negative impact on private sector investment and economic growth if it results in a lessened emphasis on domestic resource mobilisation.
7. Tied Aid and Dependency: Some foreign aid has restrictions or conditions that force the recipient nation to use the funds to purchase goods and services from the donor nation. This could lead to reliance and impede the growth of homegrown industries.

Overall, different nations and settings have different relationships between foreign aid and economic growth. It depends on the type of aid, the recipient nation's policies, the degree of governance, and the particular economic difficulties the recipient is facing. Together, donors and recipients must make sure that help is used wisely and in a way that supports long-term, sustainable economic growth and development. Further enhancing the beneficial effects of foreign help on economic growth can be done through encouraging the mobilisation of domestic resources, enhancing governance, and increasing the capacity of the receiving country to accept aid.

MATERIALS AND METHODS

The motivation behind the review is to figure out the adequacy of unfamiliar guide and duty income on financial development an exact investigation of Pakistan. To accomplish the statement targets; to figure out unfamiliar guide and duty

income emphatically affects the financial development in Pakistan; to investigate how freedom from unfamiliar guide could work on the macroeconomic execution of monetary approach in Pakistan, to look through out progress in the tax collection framework expands the social government assistance of the country. The different assessment procedures are used. Monetary development use as a reliant variable and the free factors are unfamiliar guide, charge income, capital development and financial plan shortfall.

Conceptual Framework

Traditional financial experts from William Unimportant to David Ricardo have a principal center around the issue of monetary development, its sources, structures and impacts stay an extraordinary plan of business analysts. In reality the issue and the situation of financial development is, obviously, of significantly longer overturned. Indeed, even in the pretty much dormant economies of antiquated times the chance, in the event that not the reality, of financial advancement stays at the rear of sure considerations (Kurz, 2003). Corn model thoughts had additionally a huge impact in the works of David Ricardo and Robert Torrens who came close by deciding, concerning the authority setting of cut throat free enterprise, the key duality of the (converse) association between the pace of development of the economy and utilization per capita and reverse relationship between the pace of benefit and the genuine pay rate.

Data related Framework

The secondary data used from the time of 1975-2018 to find the connection between the factors, for example, subordinate variable economic growth and autonomous factors are tax revenues, foreign aid, capital formation and government expenditures. Information has been taken from World Bank marker, State Bank of Pakistan, Global monetary insights, financial overview of Pakistan and the UNDP report. Stationarity of the information was checked through Augmented-Dickey Fuller test and ARDL (Auto backward conveyed slack) approach and Summed up strategy for second (GMM) assessment procedures was used for investigating the relationship among the factors.

Empirical Framework

Analytical framework is based upon the growth theories like classical growth and neo classical growth theories. Which comprise Lewis growth model, Rostov growth theory, Solow growth theory and Schumpeter theory of economic growth. These models constructed upon ethnic growth. Conferring to classical theory of economic growth, the growth of the country is contingent upon its productivity of labor and capital accumulation. In empirical framework the valuation methods has been deliberated that use to find the long-run relationship amongst the nominated variables. Gross domestic product known as market value of all final goods and services produce with in a country in a given period of time. Following econometric techniques we used for empirical analysis.

Unit root Test

Before researching the any time series information the first and essentially significant step is to approve the presence of unit root test or the issue of non-fixed. The non-fixed time series gives the false outcomes. We accomplish exceptionally high r-squared values and impressive t proportions, albeit the every now and again tending time series are detached. In this manner, we can say that the relationship among the factors is useless. Thus the unit root is utilized to try out that whether the time series are fixed are not.

Co- integration

There are different co-mix systems accessible to check the fixed among the factors like; (VAR) vector auto backward model Point Granger co-joining and ARDL bound testing co-mix approach.

ARDL (auto regressive distributed lag) co-integration approach

The impression of ARDL (auto backward appropriated slack model) bound testing was given by (Mbatia, 2018).

(Pasaran, 1990) to assessment the long run connection between the free factor an autonomous factors when the request of reconciliation isn't same. This is most reasonable co-joining technique then the other request co-mix methods. This strategy is well than other co-incorporations methods. This approach is superior to the next co-mix philosophies like, Engle Granger and Johnson co-mix. The ARDL bound testing is used when the elements isn't same solicitation of consolidation. Right when the both time series has different level of co-joining value that the one time series has solicitation of blend 1(0) and the other time series has solicitation of compromise 1 (1) then we used ARDL bound testing. The ARDL bound testing conveys two essential characteristics for all of the variables. One fundamental worth is for all of the variables which have solicitation of compromise 1 (1). These two characteristics give a band which covers all the gathering of all elements into fuse (0) and joining (1) which is co-integrated. These band values are known as lower bound and upper bound.

ARDL model or econometric model

This model is used to guess the association between the dependent and independent variables. This model is similar to the model of (Irum et al., 2011) and (Khan, 2012) to estimate the relationship between economic growth and other independent variables.

$$GDP_t = \beta_1 PCI_t + \beta_2 TTAXES_t + \beta_3 CF_t + \beta_4 FAID - I_t + \beta_5 GEXP_t + \beta_6 Trend_t + \varepsilon_t$$

GDP= Gross domestic product (taken as economic growth)

PCI= Per capita income (as proxy of poverty)

TTAXES= Total taxes or tax revenue
 CF= Capital formation
 FAID= Foreign aid
 GEXP= Gross domestic expenditure or government expenditure
 t= Time trend
 $(\beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \text{ and } \beta_6)$ are the coefficient of independent variables.

RESULTS AND DISCUSSION

Goals of this examination is analyze the viability and duty income on development of Pakistan, the long run and short connection between monetary development, unfamiliar guide and assessment income within the sight of some control factors like, capital arrangement, government use and pay per capita. In this exploration we likewise really take a look at the underlying breaks.

Stationarity of the Data

The increased Dickey-more full (ADF) measurements, utilized in the test is negative number. The (ADF) expanded Dickey-Fuller test is utilized the check the fixed of the time series information which was created by the Dickey& Fuller. The more bad it is the sturdier the forswearing of the speculation that there is a unit root at some degree of certainty. The consequences of the (ADF) are give in the underneath.

Table 1: (ADF) Unit Root Test Results; 5% level of significance is used for ADF Test

Description of variables	Test type	At level	At first difference	Conclusion
GDP	ADF	-2.95		1(0)
PCI	ADF	-2.95		1(0)
CF	ADF	-2.93		1(0)
FAID	ADF	0.037	-2.94	1(1)
T TAX	ADF	-2.95		1(0)
GEXP	ADF	-2.95		1(0)

In the Table.1, we see that the results of augmented Dickey- Fuller test is negative. So, there is stronger the rejection of the hypothesis that there is unit root at some level of confidence.

Table 2: Overall goodness of fit results

R-squared	0.99	Mean dependent var	6.13
Adjusted R-squared	0.99	S.D. dependent var	8.34
S.E. of regression	2.68	Akaike info criterion	51.14
Sum of squared residual	1.87	Schwarz criterion	51.76
Log likelihood	-1033.33	Hannan-Quinn criter.	51.36
F-statistic	275522.0	Durbin-Watson stat	1.68
Prob(F-statistic)	0.000000		

The data represented in table.2 regarding R-squared is a statistical determine of how close the data are to the fitted regression line. It is also recognized as the coefficient of determination, or the coefficient of several determinations for various regressions.

The definition of R-squared is fairly simple; it is the percentage of the response variable variation that is explained by a linear model. Or:

R-squared = Explained variation / Total variation

R-squared is all the time between 0 and 1%:

- 0% indicates that the model explains none of the variability of the response data around its mean.
- 1% indicates that the model explains all the variability of the response data around its mean.

Table 3: Goodness of Fit Estimation

R-squared	.93
Adjusted R-Squared	.932
F- Statistics	788.97(.000)
Durban- Watson	2.37

The data represented in Table.3 regarding R-squared is a statistical determination shows the variances of dependent Variable explained by independent Variables . The value of R-squared in above table indicate that 90% movement of dependent Variable are completely explained by the movement in independent Variables.

Table. 4: Bound testing: Autoregressive Distributed Lag estimation, Dependent Variable is GDP

Variables	Coefficient	Standard Error	t-ratios (prob)
GDP(-1)	0.78	0.08	9.53 (0.0000)
FAID	14.5	15.66	0.92 (0.36)
FAID(-1)	29.83	13.75	2.16 (0.03)
CF	-0.19	0.096	-2.04 (0.05)
CF(-1)	-0.37	0.13	-2.40 (0.02)
CF(-2)	0.26	0.10	2.63 (0.01)
GEXP	0.054	0.04	1.20 (0.23)
GEXP(-1)	0.074	0.07	1.04 (0.30)
GEXP(-2)	0.14	0.06	2.29 (0.03)
PCI	1.61	1004882	16.06 (0.0000)
PCI(-1)	-1.33	18475137	-7.20 (0.0000)
PCI(-2)	-2.117	11966656	-1.76 (0.08)
TTAX	-0.26	0.17	-1.52 (0.14)
TTAX(-1)	-0.23	0.18	-1.31 (0.19)
C	-7.74	1.88	-4.11 (0.0003)

The data represented in Table.4 regarding Autoregressive Distributed Lag estimation shows that the dependedent Variable is GDP. Standard errors of the mean is the standard deviation of the sampling Distribution of the mean. The values in above table shows the deviations of the variables stand in the model.

A graphical representation:

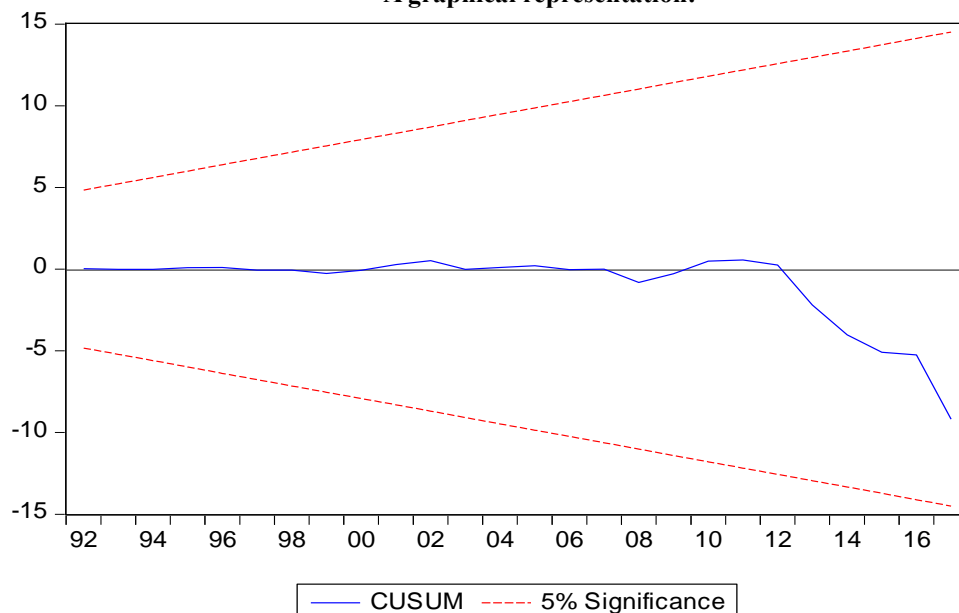


Figure 1: Structural Breaks Check by Cusum Test

Justification of bound testing

The principal distinction among ARDL and ARDL bound test is that ARDL model is applied just when the series are fixed, incorporated of a similar request as well as co-incorporated, or with proper differencing when they are incorporated of a similar request however not co-incorporated, and can't be utilized when the series are coordinated of various request (some being fixed, some 1(1) or partially coordinated).

Structural Breaks Check by Cusum Test

In Fig.1, the structural breaks of the data have been check through by Cusum test at 5% significance level. In the above fig. result shows that there are no structural breaks in the data.

CONCLUSION

This research examines the effectiveness of foreign aid and tax revenue on economic growth of Pakistan because the objective of this unfamiliar help is to debilitate transnational criminal associations, change legitimate establishments and make a modernized line more noteworthy for more noteworthy flourishing and security for the two nations. The research used time series data over the period of 1975-2018. The (ARDL) Bound co-integration approaches is used for practical analysis which was presented by (Pesaran, 2001). The result of the analysis shows that there is a positive association between foreign aid economic growths. Aid has been taken to overcome the unforeseens. So foreign aid shows the significant results on economic growth of Pakistan. So aid has a positive impact on economic growth of Pakistan. It has been more effective if it used on proper way and some good policy management.

The other important finding of the research is that there is negative association between taxes and economic growth. The finding is also reliable with the (Aghion, 2016). It is because when more taxes are impose the consumption pattern of the society are squid. The production of final goods and services are reduced that why economic growth are decrease. It is suggested that when taxes are imposed than it is necessary to see the situation of goods. On necessities goods very small amount of taxes are imposed and the ratio of direct taxes are increase. When direct taxes are increase the more revenue are generated and the larger amount of revenue increase the social welfare of the society.

The other finding of the study is the impact of government expenditure on economic growth of Pakistan. The empirical finding of this research shows that government expenditure has positive impact on economic growth. So it is justify that government expenditure has positive impact on economic growth. It is suggested that government made more expenditure on capital goods it may enhance the growths of the economy.

Per capita income has also positive impact on economic growth of the country. When per capita income increases the growth of the economy are also increases. When per capita income increases it may enhance the social welfare of the people of society. The positive impacts of per capita income are consistent with the findings of (Cebula, 2012).

In this research the impact of capital formation has also been checked. The finding of the research shows that capital formation has negative impact on economic growth of Pakistan. This finding is also consistent with the findings of (Ali, 2011). So the results of the research show negative impact on economic growth of Pakistan. It is because in Pakistan net capital investments are very low. The interest rates on capital are very high, it may reduce the net investment that's why capital formation has negative impact on growth of the country.

In conclusion, foreign assistance and tax policies are essential parts of a nation's economic and diplomatic plans because they have a big impact on how the world works, how development is promoted, and how urgent humanitarian situations are addressed. Foreign aid is a crucial instrument for wealthier nations to provide a helping hand to less developed nations, aiding them in their initiatives to reduce poverty, enhance infrastructure, promote sustainable economic growth, and address healthcare, education, and healthcare issues. Additionally, it assists in solving international issues including pandemics, climate change, and humanitarian disasters.

On the other hand, governments depend on tax policy to pay for public investments and services, maintain infrastructure, and guarantee that social welfare programmes are sufficiently supported. Taxation that is fair and equitable makes sure that the cost of supporting the government is shared fairly among the populace, fostering social cohesion and lowering income inequality.

However, transparency, accountability, and effective administration are essential to maximising the benefits of tax and foreign aid policies. Donor nations must make sure that help is used properly and efficiently to solve the underlying problems that impede development and that it reaches the intended recipients.

Additionally, tax laws should be carefully crafted to prevent placing an unnecessary burden on firms and people while still maintaining social welfare and encouraging economic progress. A fair and sustainable system can be achieved by introducing progressive tax structures and combating tax evasion.

Cooperation among states on issues like foreign aid and tax laws becomes more crucial in a world that is changing quickly. Collaboration can improve aid coordination and help stop the use of tax havens and other legal loopholes that encourage tax evasion.

In the end, governments, international organisations, and civil society must work together to effectively implement tax and foreign aid policies. Together, nations can create a more wealthy and equitable world where resources are used wisely, poverty is decreased, and sustainable development is a reality for all.

CREDIT AUTHOR STATEMENT

Nasreen Akhtar: Data curation, Writing- Original draft preparation, Methodology, Visualization, Investigation. **Sadia Anjum:** Conceptualization, Reviewing and Editing, Validation. **Ghulam Abbas:** Software, Visualization, Investigation, tool development. **Muhammad Asif Idrees:** Data collection, Visualization

ETHICAL CONSIDERATIONS

It is declared that all authors don't have any conflict of interest. Furthermore, informed consent was obtained from all individual participants included in the study.

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